



Maryland Port Commission Annual Report for Fiscal Year 2024

Transportation Article, §6-201.2(c)

Purpose

The Maryland Port Commission Annual Report for Fiscal Year 2024 was prepared in response to Transportation Article, §6-201.2 (c), which requires:

- “(c)(1) Subject to §2-1257 of the State Government Article, the Commission shall report by January 15 of each year to the General Assembly on the activities of the Port Commission during the previous year.*
- (2) The report shall include a review of the port’s competitive position during the previous year and any recommendations of the Commission for future changes in legislation, capital funding, or operational flexibility for consideration by the General Assembly.*
- (3) The report shall also include any substantive changes in its regulations for procurement and personnel.”*
- (4) (i) The report shall also describe the vulnerability assessment information concerning public terminals submitted by the Administration to the United States Coast Guard under the federal Maritime Transportation Security Act of 2002.*
 - (ii) With respect to any vulnerability concerns reported by the Administration to the United States Coast Guard, the information reported under this paragraph:*
 - 1. Shall provide an estimate of the cost of addressing the vulnerability concerns;*
 - 2. Shall state the amount of any grants or other federal funds received or requested by the Administration to address the vulnerability concerns and shall include information on the status of any pending requests for federal funds; and*
 - 3. May not include the specific details of any vulnerability concerns, the disclosure of which could compromise, in any way, transportation security.*

Maryland Port Commission

Paul J. Wiedefeld, Transportation Secretary
Maryland Department of Transportation
Chair of the Maryland Port Commission



Ms. Karenthia Barber



Mr. John Brewer



Mr. Adam Neuman



Mr. Sandy Roberts



Mr. David Richardson



Mr. M. Scott Webb



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Executive Summary

The Helen Delich Bentley Port of Baltimore (“Port”) is one of the economic drivers for the State of Maryland and the greater Mid-Atlantic region. The Maryland Port Commission (“MPC”) is proud to report that Maryland’s Port is strong. The MPC expresses its sincere appreciation for the hard work, perseverance, and professionalism of those who lead and work at the Maryland Port Administration (“MPA”), as well as the many important private stakeholders and governmental partners dedicated to fostering the growth and development of the Port of Baltimore.

The Port has a significant economic impact in Maryland, creating over 273,600 cargo-related jobs. Of the more than 20,190 direct jobs, around 80 percent belong to residents of Baltimore City, Baltimore County, and Anne Arundel County. The Port generates more than \$5 billion per year in personal income to Maryland residents, and roughly \$4 billion in annual taxes and business revenues. As such, it is a key contributor to the economic vitality of the region and those who make their living and support their families through maritime commerce.

Prior to the collapse of the Francis Scott Key Bridge, volumes at MPA terminals were up approximately 0.4% from the corresponding time period in FY 2023. Following the incident, vessel access was severely limited to MPA terminals and MPA general cargo volumes were down approximately 21.3% from the prior year at 9.1 million tons. In calendar year 2023, the public and private terminals of the Port handled a record 52.3 million tons of foreign cargo with a record total value of \$80.8 billion. The Port continues to be ranked first in the nation for automobiles, roll on/roll off (“RoRo”) equipment, imported gypsum and sugar. Bulk cargos are predominately handled at the Port’s private terminals, and they typically comprise approximately 73% of the total foreign cargo tons that move through the entire Port.

As one of the oldest ports in the United States, the Port has a long history of delivering economic prosperity through trade. For generations, MPA has been committed to supporting Maryland’s vitality and upholding port traditions and history while also making important sustainability advancements under the fundamental principle that stewardship, environmental and economic sustainability, and protecting employees and public health are essential components of its mission. The MPA’s responsibility for clean air, land, and water not only compliments good business, but drives competitive advantages for the Port.

Similarly, strong relationships with stakeholders and the commitment to thriving communities have fostered economic growth while benefitting people and Maryland, allowing MPA to reach nearly 20,000 people across 372 education and outreach events. Port outreach programs continue to prioritize environmental justice, diverse representation reflecting the communities the MPA serves, and increasing public knowledge about the Port for outcomes that equitably benefit all Marylanders.

While the Port's strategic advantages are many, the MPC acknowledges several ongoing challenges that may impact the Port's business opportunities and competitiveness.

- On March 26, as a result of being allided with by the *M/V DALI*, the Francis Scott Key Bridge ("Key Bridge") collapsed, preventing vessels from reaching MPA terminals, and all but one private marine terminal, in the Port. Later that afternoon, a Unified Command and Joint Information Center was established to coordinate the response and disseminate information related to the collapse. On April 1, smaller vessels began accessing the Port via limited access channels and by June 10, after 78 days, the 700-foot-wide by 50-foot-deep shipping channel to the Port of Baltimore was safely reopened allowing the return of global shipping businesses and cruises to begin and getting Marylanders back to work. While the channel is fully restored, there has been a visible delay in certain cargo returning to Baltimore.
- Continued capital funding investments in system preservation, berth reconstruction projects, and the dredged material management program that are vital to the Port's long-term growth, competitiveness, and sustainability, while also increasing facility resilience to cope with a changing climate.
- Supporting key partnerships to add high-cube double-stack rail capacity via the Howard Street Tunnel, additional 50-foot-deep berth spaces, an enhanced loop channel at Seagirt Marine Terminal, and the Mid-Chesapeake Bay Island Ecosystem Restoration Project.
- Operating the MPA terminals and facilities in an environmentally responsible manner that supports neighbors, customers, and port business.
- Factors outside of the MPA and State's control, including global geopolitical situations (e.g., Red Sea and Suez Canal), international trade policies (e.g., tariffs imposed by national governments), and labor-management relations by private port stakeholders (e.g., the master contract negotiated by the International Longshoremen's Association and the United States Maritime Alliance).

The MPC is confident in the commitment and ability of the MPA to continue working diligently with all its partners and stakeholders to address and overcome these challenges, many of which remain tied directly to the competitiveness of the Port within a rapidly changing global environment.

Francis Scott Key Bridge Incident

In the early morning of March 26, the cargo ship the *M/V Dali* left the Port of Baltimore and struck the Key Bridge, causing it to collapse into the Patapsco River. The collapse prevented vessels from reaching MPA terminals, and all but one private marine terminal, in the Port. By the afternoon of March 26, the Unified Command and Joint Information Center was established to coordinate the response and disseminate information related to the incident. Unified Command included the U.S. Coast Guard, the Maryland Department of Environment, the Maryland Transportation Authority, the Maryland State Police, and Synergy Marine.

On April 1, the first commercial vessel to use the channel since the Key Bridge collapse transited the first temporary alternate channel created by Unified Command. During the next month, Unified Command opened two additional alternate channels and a limited access deep draft channel.

On June 10, after 78 days, the 700-foot-wide by 50-foot-deep shipping channel to the Port was safely reopened welcoming back global shipping businesses and cruises and getting Marylanders back to work. While the channel is fully restored, there has been a delay in certain cargo returning to Baltimore. Several ocean carrier partners expect container volumes to return to pre-Key Bridge-collapse levels by early 2025. The full extent of the cargo and economic losses to the Port resulting from the Key Bridge collapse remain to be determined.



Governor Wes Moore and USDOT Secretary Pete Buttigieg address the media on March 26



Wallenius Wilhelmsen's Carmen leaving the Port on April 25

Major Accomplishments

- **A record year**—The Port handled a record **\$80.8 billion** worth of foreign cargo in calendar year 2023 and established other new marks despite lingering worldwide supply chain issues and pandemic impacts to the international maritime shipping industry. The Port's state-owned public marine terminals managed by the MPA, along with its private terminals, handled a total of **52.3 million tons** of cargo last year, surpassing the previous record of 44.2 million tons set in 2019. Other records in 2023 included:
 - 1.3 million tons of roll on/roll off farm and construction machinery (previous record was 1.0 million tons in 2012);
 - 1.1 million Twenty-foot Equivalent Unit containers (previous record was 1.0 million in 2019);
 - 11.7 million tons of general cargo tons (previous record was 11.3 million tons in 2022) 11.7 million general cargo tons through MPA terminals;

The Port also handled 847,158 cars and light trucks; Baltimore handled more cars and light trucks than any other U.S. port for 12 consecutive years through 2023.

- **New leadership takes the helm**—Jonathan Daniels was named the new Executive Director of the MPA on February 5. Prior to taking the helm at the Port, Jonathan was the chief executive officer and director at Port Everglades in Broward County, Fla. The Commission notes that Jonathan was only on the job for several weeks when the Key Bridge collapsed. The Commission believes the Port, as well as the entire State of Maryland, benefitted greatly from Jonathan's steady hand and strong and active leadership during that time.
- **Largest containership ever to call Baltimore**—The Port welcomed the largest container ship ever to visit Maryland with the arrival of the Evergreen Ever Max at Seagirt Marine Terminal in 2023. Weighing 165,350 tons and 1,200 feet in length, the Ever Max is longer than four football fields and has the capacity for 15,432 Twenty-foot Equivalent (TEU) containers. The Port can accommodate massive container ships because of its infrastructure: a 50-foot-deep channel and ultra-large, Neo-Panamax cranes. Previously, the largest container ship to visit the Port was another Evergreen vessel, the Triton, which first visited in 2019 and has a capacity of 14,424-TEU containers.
- **Come sail away!**—More than 444,000 individuals cruised out of the Port in 2023, representing the third-highest passenger total in the port's history, and the most since 2012. Baltimore's cruise terminal provides an ideal location right off busy Interstate 95 and easily accessible from other neighboring states.
- **Construction continues on the Howard Street Tunnel Project**—After breaking ground on the long-awaited Howard Street Tunnel expansion project in November 2021, three of the ten construction packages have completed construction.

Another four packages are still under construction. Design and permitting for three other packages continues so that construction may begin on those packages in the next fiscal year. Construction on the project is scheduled to be completed in 2027.

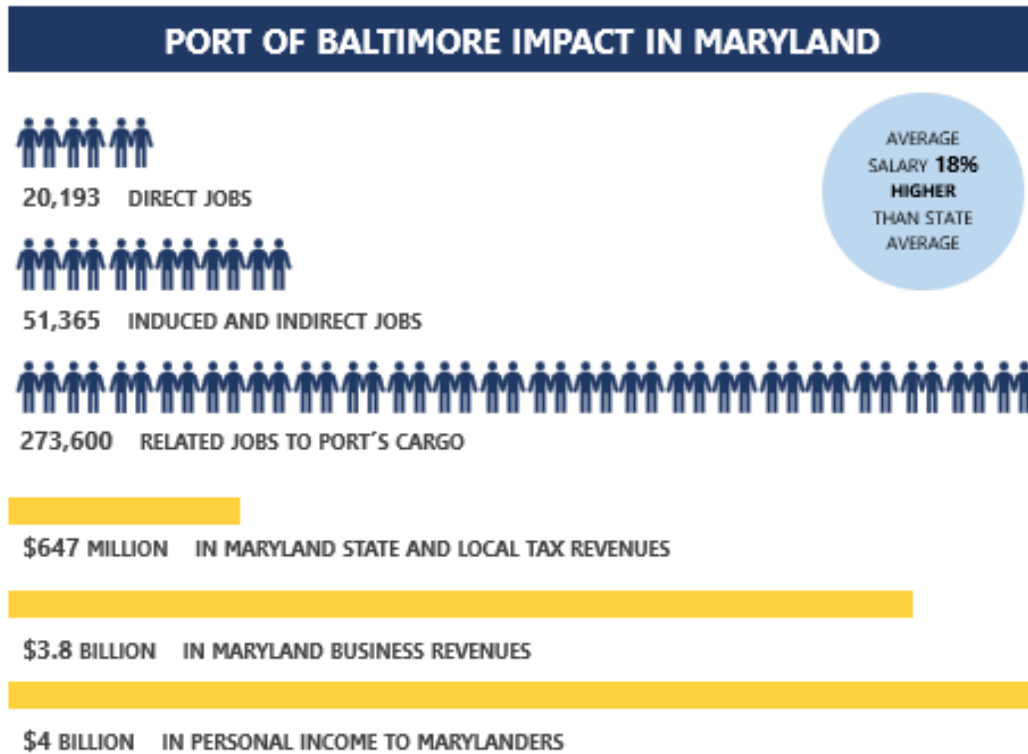
- **Seagirt Loop Deepening Feasibility Study completed** – The Seagirt Loop Feasibility Study, a three-year feasibility study between the MPA and the U.S. Army Corps of Engineers (“USACE”), concluded in June 2023, three months ahead of schedule, with the signing of a Chief’s Report by the USACE Commanding General and Chief of Engineers. The report recommended improvements to the Seagirt Loop Channel that included deepening to 50-feet and widening channel bends. These improvements, once constructed, will improve navigational efficiencies and safety to help meet demand for future capacity.
- **Top Security Grade 15 consecutive years and running** – The U.S. Coast Guard awarded the MPA a top security assessment for the 15th consecutive year. The U.S. Coast Guard’s annual inspection of the state-owned, public marine terminal facilities included a detailed review of all security protocols and procedures with a specific focus on cyber security. In recent years, the MPA has installed high-mast lighting and fencing, strengthened gates and fence lines, additional signage, and other physical security equipment. Heightened cyber security and access control initiatives coupled with the MPA’s closed-circuit television network have added to the MPA’s robust and effective security program.
- **Mid-Bay underway**—The \$4.4 billion Mid-Chesapeake Bay Ecosystem Restoration Project (“Mid-Bay”), a top priority for the Port and Maryland’s Congressional Delegation, progressed on schedule in FY 2024 with the continuation of the first phase of construction activities for the restoration of Barren Island. Barren Island will restore approximately 72 acres of wetlands. Design of James Island progressed in FY 2024 and is expected to begin construction in 2025. James Island will restore 2072 acres of remote island habitat and accommodate an estimated 90 million to 95 million cubic yards of dredged sediment, providing at least 30 years of capacity.
- **Innovative Reuse of Dredged Material makes major strides**— Implementation of the 2020 Innovative Reuse and Beneficial Use Strategy is well underway. Six of seven awarded Research and Development Innovative Reuse projects have been completed, and two additional technical proposals are under consideration for award. These projects will allow the MPA to identify high-volume, sustainable reuse applications to support long-term strategic planning and identify the critical steps to making large-scale innovative reuse a reality at Maryland’s Port. Additionally, in December 2022 the MPA acquired the property adjacent to the Cox Creek Dredged Material Containment Facility, which is a key component in advancing large-scale innovative reuse. Remediation and site development in preparation for innovative reuse activities continued in FY 2024.
- **Celebrating 10 Years of the Urban Wildlife Refuge Partnership**—Masonville Cove celebrated its tenth year of designation as the nation’s first wildlife refuge

partnership on December 11, 2023 with the Masonville Cove partners and community members.

- **Continuing to engage Port communities and grow meaningful partnerships—**The MPA stakeholder engagement and education and community outreach efforts continue to reach new partners and support the Port’s neighboring communities. In 2023, MPA reached nearly 20,000 people across 372 education and outreach events. Port outreach programs continue to prioritize environmental justice, diverse representation reflecting the communities the MPA serves, and increasing public knowledge about the Port for outcomes that equitably benefit all Marylanders.
- **Career connections—**With support from the MPA, the Baltimore Port Alliance (“BPA”) hosted its fifth and largest Hiring & Career Expo, bringing together 38 employers and nearly 250 job seekers.

Economic Impact

Maryland's Port remains the economic heart of the greater Baltimore region and the State of Maryland by providing jobs, business activity, and revenues. In addition, the Port provides Maryland's manufacturers, shippers, wholesalers, and retailers a competitive means of exporting and importing goods within the global marketplace efficiently and cost effectively.¹



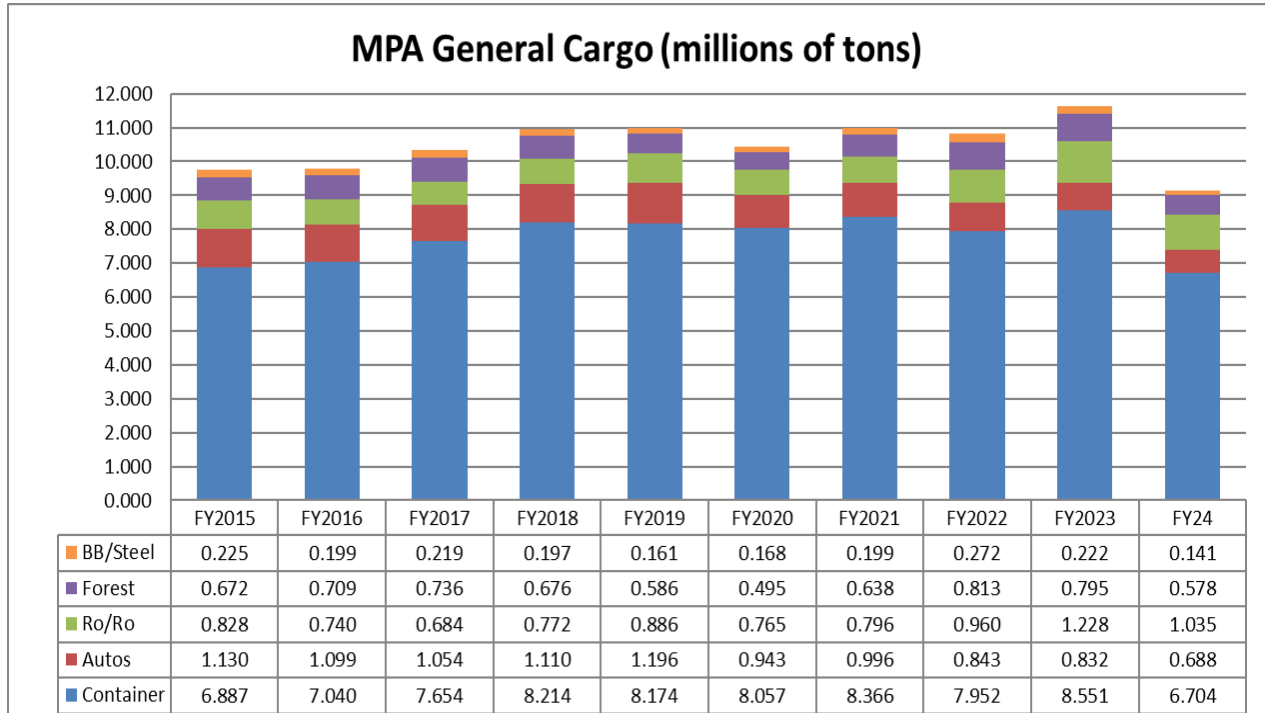
In 1956, when the Maryland General Assembly created the Maryland Port Authority, and later the Maryland Port Administration, it placed state-wide economic benefits at the core of its mission to “increase the flow of waterborne commerce through the State of Maryland in a manner that provides benefits to the citizens of the State.”

The Port, with more than 300 years of longevity, supports employment opportunities for people with a wide range of skill levels and provides an average annual salary of \$82,426 for each direct job generated—**an average annual wage which is 18 percent higher** than the average annual wage for every job in the State of Maryland.

¹ From the most recent data available: “The Economic Impacts of the Port of Baltimore” March 2024, prepared by Martin Associates.

Cargo Activity

The MPA terminals handled 9.1 million tons of general cargo in FY 2024, a 21.3% decrease from FY 2023. All cargo volumes fell following the collapse of the Key Bridge on March 26. This data is subject to change as additional data is gathered and analysis performed.



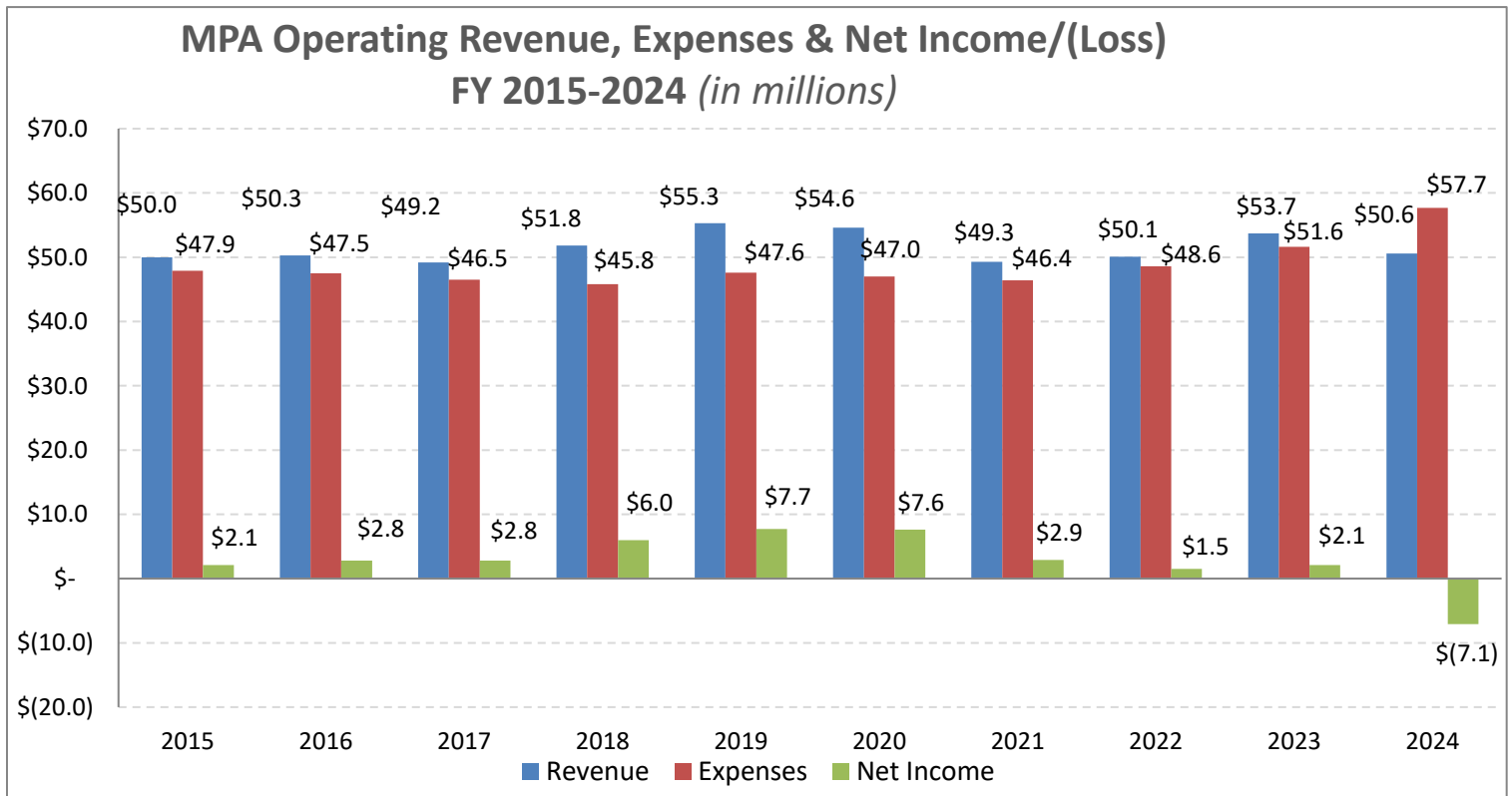
Internal MPA Data

Operating Results

The MPA generates significant economic benefits for Baltimore City, the State, and the region, including operating revenues. During normal operations, the MPA's terminals generate positive net operating income that can be reinvested into future Port enhancements. The public-private partnership agreement with Ports America Chesapeake helps keep expenses low at Seagirt while generating a relatively steady revenue stream. The MPA also has several long-term agreements in place, providing predictability and sustainability.

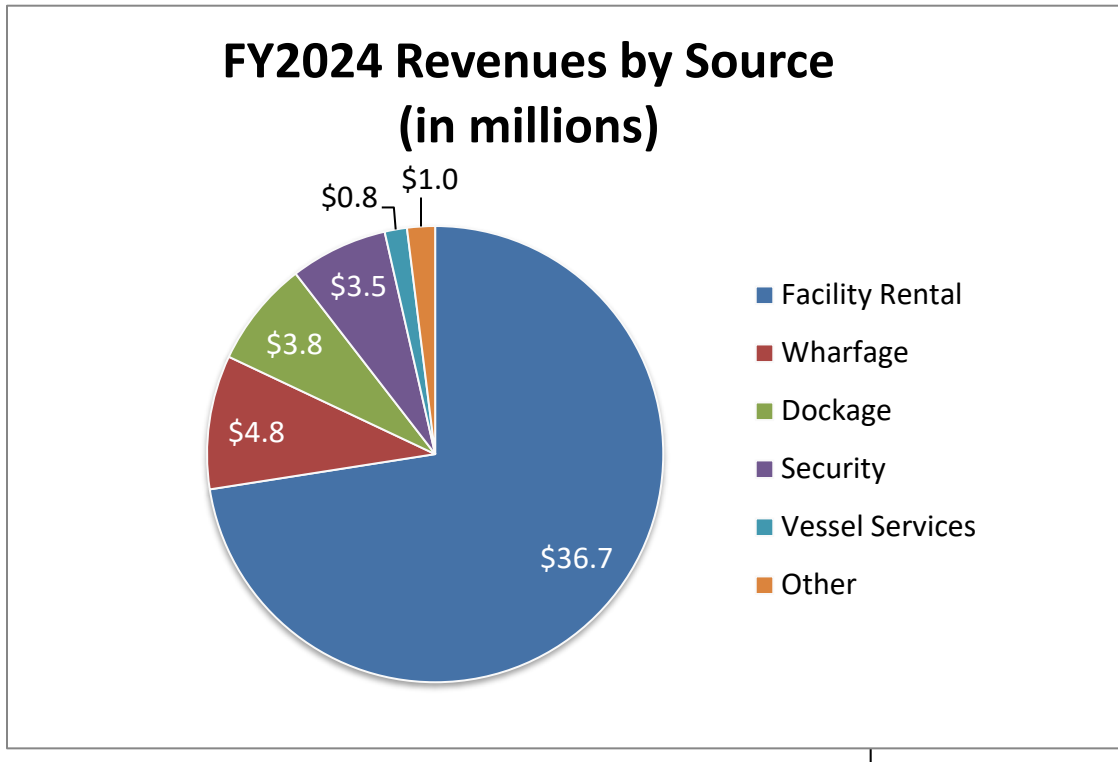
Due to the collapse of the Key Bridge on March 26, vessels were temporarily unable to reach MPA terminals. During the downturn, MPA has, to date, continued to receive rental revenues. The cruise lines and many other customers returned before the end of the fiscal year. Since vessel schedules are set in advance, there has been a lag especially with larger vessels returning to the port. The full extent of the economic losses to the Port resulting from the Key Bridge collapse remain to be determined.

Total operating revenues for FY 2024 were \$50.6 million. Total operating expenses grew to \$57.7 million, a 11.8% increase over the prior year. The MPA continues to recognize increases in utility costs, security, materials and supplies, and investments necessary to keep the MPA's terminals operating safely and efficiently.



Internal MPA Data

Operating Results, Continued



Internal MPA Data

Sustainability Activities

The 2022 Climate Solutions Now Act enacted in Maryland is among the most ambitious climate change laws in the country, and it has shaped MPA's approach to sustainability. The law aims to reduce greenhouse emissions in Maryland 60% by 2031, and to achieve net zero emissions by 2045. Accordingly, MPA has launched efforts to adapt its port operations in a way that helps mitigate the causes of, prepares for, and adapts to the consequences of climate change.

The MPA continues to work to closely align its statutory mission to increase waterborne commerce through the ports in Maryland with stewardship of Maryland's natural resources, and the health and well-being of the environment and our neighboring communities.

The MPA has invested in prioritizing development of an official Sustainability Program with filling the position of a Sustainability Manager. Within the first half of 2024, the MPA's first Sustainability Report was developed to present a wholistic summary of MPA's economic, social and environmental efforts and success. The program is creating a Sustainability Strategy that will provide a framework for performance through identification of new or enhanced goals driven by improved processes, projects, programs and initiatives.

The MPA sustainability accomplishments in FY 2024 include:

- **Port's Air Quality Partnership continues**—MPA completed the eighth successful year working with the Maryland Department of the Environment ("MDE") to implement air quality improvement projects under the Voluntary Air Agreement. Originally signed in 2015 and updated in 2021, the agreement commits MDOT, MPA, MDE, and Maryland Energy Administration to develop and implement projects that reduce air emissions or increase energy efficiency at the Port, while recognizing the importance of climate change and providing a greater focus on stakeholder engagement with underserved and overburdened communities. In 2023, the agencies redoubled their efforts to engage with environmental justice communities around the Port through projects, tours of state-owned terminals, meetings, and regular updates on air quality improvement actions.
- **Diesel Emissions Reduction Act ("DERA") 2021 Grant Progress**—In collaboration with RoadOne and IKEA, the MPA received the first of three zero-emission ("ZE") dray trucks to serve the Port on a regular basis. Keen Transportation, a subsidiary of Wallenius Wilhelmsen, received the first ZE dray truck in 2023. It has serviced moves from Dundalk Marine Terminal to nearby locations in Maryland. Keen is currently preparing their initial freight move to Carlisle, PA. The MPA's partner, RoadOne, will be receiving two new ZE dray trucks in 2024 for dedicated haulage of containerized cargo shipments on behalf of IKEA.

- **Energy audits and net zero assessments**—As a part of MPA’s ongoing efforts to support the Climate Solutions Now Act goal of net-zero greenhouse gas (“GHG”) emissions by 2045, the first phase of energy audits and net zero assessments were completed in 2023. The first phase focused on buildings at Dundalk Marine Terminal, South Locust Point Marine Terminal, and the Baltimore World Trade Center. This assessment utilized 2006 and 2018 baselines for comparison to current energy utilization and identifies potential electrification and decarbonization opportunities to meet Maryland’s carbon emission reduction goals.
- **Coastal Resilience and Climate Change Vulnerability Assessment** – The MPA was awarded a \$150,000 Federal Emergency Management Administration grant under its Building Resilient Infrastructure and Communities Program to develop a comprehensive flood and storm vulnerability assessment and improve overall coastal resiliency at its marine terminals. The study includes key GIS data that will be utilized to inform design and permitting decisions that will increase the resilience of MPA’s assets to extreme weather impacts.
- **EPA Clean Ports Program**—In May 2024, MPA submitted two grant submittals for the EPA Clean Ports Program. The planning project application included an update and expanded emissions inventory, an alternative energy analysis with an emissions reduction strategy plan, a workforce analysis, and the development of a comprehensive community engagement plan. The purpose of this project is to accelerate criteria air pollutant and GHG emission reductions, promote energy resiliency, and reduce pollution-related impacts to Port-adjacent communities, many of which are identified environmental justice communities. The deployment project application contained projects from both MPA and collaborators from around the Port (PAC, Wallenius Wilhelmsen, SSA Marine, C. Steinweg) and beyond (CALSTART, Capital Logistics). The Deployment application is focused on terminal electrification and decarbonization through the procurement of 213 new zero-emission vehicles and equipment with their associated chargers, along with upgraded infrastructure at Dundalk and Seagirt Marine Terminals to support them. Through reducing the use of and scrapping outdated diesel equipment, this project supports the improvement of air quality surrounding the Port. Awards are anticipated to be announced in December 2024, with work beginning on the projects in early 2025.
- **LED lighting upgrades**—The MPA continued installation of new interior and exterior LED lighting in several areas throughout the Dundalk and North Locust Point Marine Terminals. The LED upgrades reduce electricity usage, increase worker safety, and help to lower greenhouse gas emissions.
- **Stormwater management improvements**—The MPA continued its implementation of stormwater management and total maximum daily load (“TMDL”) improvements to reduce pollution entering local waterways and ultimately the Chesapeake Bay.

- **Water Quality Trading Program**—The MPA worked collaboratively with MDE to refine the application process and register the first credits for stormwater projects under Maryland's Water Quality Trading Program (“WQT”) in 2019. The WQT is part of Maryland's Chesapeake Bay restoration effort that helps Maryland businesses and organizations more cost-effectively meet federal Clean Water Act TMDL requirements. The WQT creates a public marketplace for verified nitrogen, phosphorus, and sediment reduction credits to enhance the restoration and protection of the Chesapeake Bay. For the sixth consecutive year, the MPA listed available credits for 2023 on the WQT and worked with prospective purchasers to finalize sales of the credits.
- **Awards**—The MPA's sustainability and safety activities were recognized with four different awards this year:
 - Katrina Jones, MPA Program Manager for Education and Engagement, received the *Person of the Year* award from the Women's Traffic & Transportation Club of Baltimore for her exemplary involvement in Baltimore communities, the Port, and the WTTC.
 - Joe Nickoles, MPA Deputy Director of Crane, Facility, & Fleet Maintenance, was awarded the *MDOT Safety Award for Safety Leader* for his contributions to the successful execution and enhancement of MDOT's mission, goals, and objectives, and the promotion of safety awareness.
 - MDOT recognized Molly Krueger, MPA Media and Event Coordinator, and Janice Howlin, Accountant Trainee, with the *MDOT Above and Beyond* award for their quick thinking in providing assistance to a fellow employee during a medical crisis.
 - The State Employee Risk Management Administration (SERMA) awarded MPA Deputy Director of Crane, Facility, & Fleet Maintenance, Joe Nickoles, with the SERMA award for Unsung Hero for his substantial contribution to the health and safety of MPA employees and his reliable, dependent service to MPA on a consistent basis.
- **Stakeholder engagement**—Throughout FY 2024, the MPA environmental outreach team members participated in events such as the BPA Environmental Committee “Air Tour”, Port Safety & Environmental Committee Annual Meeting, Turner Station National Night Out, the Maderia Street Garden event, and a Turner Station Park Cleanup. Through MPA's continued engagement with the BPA's Environmental Committee, several donations of material for reuse to communities around Baltimore were made in FY 2024, including steel framing and wood dunnage for use in community gardens and wharf logs to be used as curbs and vehicle stops in public parks.

Dredged Material Management Program

Each year, between four and five million cubic yards (“mcy”) of sediment accumulate and must be removed from Maryland’s shipping channels to maintain the Port’s continued viability. The State’s Dredged Material Management Program (“DMMP”) operates under a 20-year plan for developing, operating, and maintaining placement options or alternative solutions for the management of the dredged sediment from both annual maintenance and new dredging projects. Citizen and stakeholder involvement is emphasized throughout the process.

In FY 2024, the MPA was responsible for operating three active DMMP sites, including the Masonville Dredged Material Containment Facility (“DMCF”), Cox Creek DMCF, and the Poplar Island Aquatic Ecosystem Restoration Project. Progress continued this year to develop solutions for adding long-term capacity for both Bay and Harbor channel material.

The MPA continues to expand traditional placement options, such as the vertical and upland expansions of the Cox Creek and Masonville DMCFs, as well as beneficial use solutions, such as the Mid-Chesapeake Bay Island aquatic ecosystem restoration project and other innovative reuse projects.

Cox Creek DMCF expansion achieved a significant milestone in FY 2023, as construction of the +60-foot dike raising and lateral expansion onto the adjacent upland area was substantially completed. The expansion to +60 feet provides 8.8 mcy of additional capacity for the Cox Creek DMCF for a total of 15.3 mcy. In FY 2024, a feasibility study and design efforts for the next phase of expansion, raising the dikes to +80-feet began and will continue in FY 2025.

Masonville DMCF expansion is underway and construction of the base dike widening that will serve as the foundation for future phases of dike raising first to +30 feet, then to a final elevation of +42 feet was completed in May 2023. The next phase of dike raising to +30 feet began in fall 2023 and is expected to be completed by the summer of 2026. The expansion will result in the site gaining approximately 4 mcy of capacity. Design for the next phase of dike raising to +42 feet began in the spring of 2024.



MPA DMMP Placement Sites

The MPA continues to explore new solutions for Harbor channel placement capacity including **Confined Aquatic Disposal** (“CAD”) cells. While a second pilot project has been paused due to stakeholder concerns, a CAD Subcommittee under the DMMP Bay Enhancement Workgroup will convene to evaluate the feasibility of CAD as a dredged material management option under the DMMP.

The **Seagirt Loop Feasibility Study**, a three-year feasibility study between the MPA and USACE, concluded in June 2023, three months ahead of schedule, with the signing of a Chief’s Report by the USACE Commanding General and Chief of Engineers. The report recommended improvements to the West Seagirt Branch Channel that included deepening to an authorized depth of -50 feet mean lower low water and an authorized average width of 760 feet with widening at bends as necessary for the safe navigation of vessels. These improvements, once constructed, will improve navigational efficiencies to help meet demand for future capacity including efficient handling of increased container volume at Seagirt Martine Terminal as well as faster and safer movement of vessels transiting the channel. The next phase of the project, preconstruction engineering and design is anticipated to begin in the fall of 2024.

The **Mid-Chesapeake Bay Island Ecosystem Restoration Project** is a top priority for the Port and Maryland’s Congressional Delegation. The first phase of construction activities for the restoration at Barren Island continued during FY 2024 and is expected to be completed in fall 2024. The second phase of construction activities at Barren Island is expected to begin following the completion of the first phase of construction. James Island design continues, and extensive agency coordination is underway to optimize the resiliency and ecological benefits for the project. The MPA and USACE continue to host Mid-Bay public outreach and stakeholder engagement efforts including tours of Poplar Island, informational Open House meetings, distribution of updates via newsletters and email, and regular habitat development workgroup and NEPA collaboration meeting.

Significant **Innovative Reuse** of dredged material activities and developments continued to advance in FY 2024. Seven contracts have been awarded under the Innovative Reuse Research & Development Request for Proposals to study feasibility of dredged sediment for a variety of end uses and marketable products including permeable bricks and pavers, topsoil, sod, concrete alternative products, and lightweight aggregate and vegetated berms to support ecological health in urban wetlands. Six of the awarded contracts have been completed and all show promising results for implementation on a large scale. Two additional Innovative Reuse Research & Development proposals have also been received and are under evaluation. Both proposals are expected to be awarded contracts in early FY 2025.

In 2022, MPA acquired the property adjacent to Cox Creek DMCF to serve as a hub for advancing the innovative reuse program and implementing large scale capacity recovery efforts. Phased remediation planning continues for the site, now named the **Cox Creek Sediment Technology and Reuse (“STAR”) Facility**.

Seaport Security and Cybersecurity

For 15 consecutive years, the MPA achieved perfect U.S. Coast Guard annual security inspection ratings. Significant partnerships have been established with the Maryland Transportation Authority Police, Maryland Natural Resources Police, Baltimore County Police, Baltimore City Police, Maryland State Police, State Fire Marshal's Office, Maryland Emergency Management Agency, Maryland Coordination and Analysis Center, U.S. Coast Guard, U.S. Customs and Border Protection, U.S. Homeland Security Investigations, Transportation Security Administration, Federal Bureau of Investigation, and the U.S. Department of Agriculture.

The MPA engages in a continuous and dynamic assessment process to meaningfully enhance the security of its terminals and headquarters at the World Trade Center. The MPA utilizes the Federal Emergency Management Agency's Port Security Grant program to protect transportation, critical infrastructure, and security initiatives. These funds have been utilized to enhance and maintain a sophisticated Closed-Circuit Television system, access control processes, install anti-vehicle borne Improvised Explosive Device barriers and develop and implement a sound cyber security annex to the MPA's Facility Security Plan and program

The MPA has consistently worked towards building and implementing a strong cybersecurity defense strategy closely aligned with the policies and guidelines of the MDOT Enterprise. The MPA, with its domain expertise in the field of maritime transportation, has played a significant role in the adaptation of cybersecurity resilience and risk management approaches. The MPA has also played a liaison role in applying cybersecurity technology and strategies in a maritime business environment, meeting the essential requirements mandated by the federal agencies such as the U.S. Department of Homeland Security, the Transportation Security Administration, and the U.S. Coast Guard.

The MPA continues to enhance its cybersecurity program and address necessary improvements. Cybersecurity projects recently completed include:

- Cybersecurity Automated Remediation - Phase I: Microsoft Products
- Enhancing Cybersecurity by Replacing End-of-Life Network Switches
- Replacement and Hardening of Surveillance Cameras with Critical Vulnerabilities
- Implementation of Critical Cybersecurity Procedures Requiring System and Network Changes
- Enhancing Cybersecurity of Port-Wide Wireless Links by Replacing Legacy Wireless Links
- Design and Approval of a Cybersecurity Annex to the MPA's Facility Security Plan

Cruise Maryland

The cruise industry in Maryland generates nearly 223 jobs and \$71 million in annual revenues for local business. The Port has offered year-round cruising since 2009 and is currently served by Royal Caribbean, Carnival, and Norwegian Cruise Line. Located in South Locust Point, the terminal is conveniently located near BWI airport and Interstate 95. In the last year, more than 444,000 passengers departed from the Port to destinations including the Bahamas, Bermuda, Canada, New England, the Caribbean, and Greenland.

The Port's location, at the heart of the Baltimore-Washington-Northern Virginia corridor combined statistical area, serves the nation's third most affluent consumer market and its fourth most populous region. Having a facility dedicated solely to cruising, in addition to the Port's enviable location immediately off Interstate 95, makes it extremely marketable and provides marquee visibility for cruise ships while in port.



Royal Caribbean Cruise Line in Baltimore, Md



Cruise Maryland in Baltimore, Md

Operations

SEAGIRT MARINE TERMINAL

In 2009, MPA entered into a 50-year Public-Private Partnership with Ports America Chesapeake ("PAC"), which continues to make investments at Seagirt Marine Terminal. Since taking operational control of Seagirt Marine Terminal, PAC has invested nearly half a billion dollars in capital improvements.

In the past year, PAC has added 15 new hybrid electric rubber tired gantry cranes into service, resulting in a 3-minute reduction of transaction times. This efficiency has helped achieve an average import delivery rate of 1,370 per day as compared to 1,253 a day previously, nearly a 10% improvement. PAC has also completed improvements to their inbound lanes on Broening Highway, increasing their available lanes by 40 percent and improving efficiencies by allowing for single stop transactions.



Seagirt Marine Terminal in Baltimore, Md

Other future projects in the works for the Seagirt Marine Terminal include:

- Redevelopment of the 37-acre Point Breeze Business Center property to allow for expanded capacity;
- Installation of radiation monitors and U.S. Customs and Border Protection workstations are projected to be operational in September 2024, allowing inbound and outbound access for trucks with loaded containers;
- A reconfiguration of outbound lanes to add capacity, increase safety and add speed has been designed and expected to begin construction by fall 2024;
- A new export grain transload facility at the Intermodal Container Transfer Facility ("ICTF") is in early stages of development, with a goal of having the facility operations by Q4 of 2025.
- The MPA and Ports America Chesapeake have applied for additional federal funding from the EPA Clean Ports Grant Program to allow for the migration of our fleet of yard trucks from diesel to electric.
- A new Vail Street outbound gate will be opening fall 2024. This gate will increase capacity by 50 percent and improve departure time from the terminal;

- An ICTF modernization project to double throughput capacity is in the design and permitting phase, targeting completion in 2026. This project will add six new rail tracks and infrastructure to support additional electric powered RTGs; and,
- An empty depot at 2501 Broening Highway is currently in the design and permitting phase, with an expected completion in 2025. This depot will reduce Seagirt Terminal traffic and allow for quick turnaround of empty containers.

RAIL

Railroads handle containers, project cargo, military cargo, forest products, autos, grain, cement, coal, and liquid bulk cargo moving through Maryland's Port of Baltimore. The MPA facilities are serviced by both Class I railroads operating in the eastern United States: Norfolk Southern handles freight at the Dundalk Marine Terminal and CSX operates in Seagirt, North Locust Point, South Locust Point, Hawkins Point, and Fairfield/Masonville Marine Terminals.

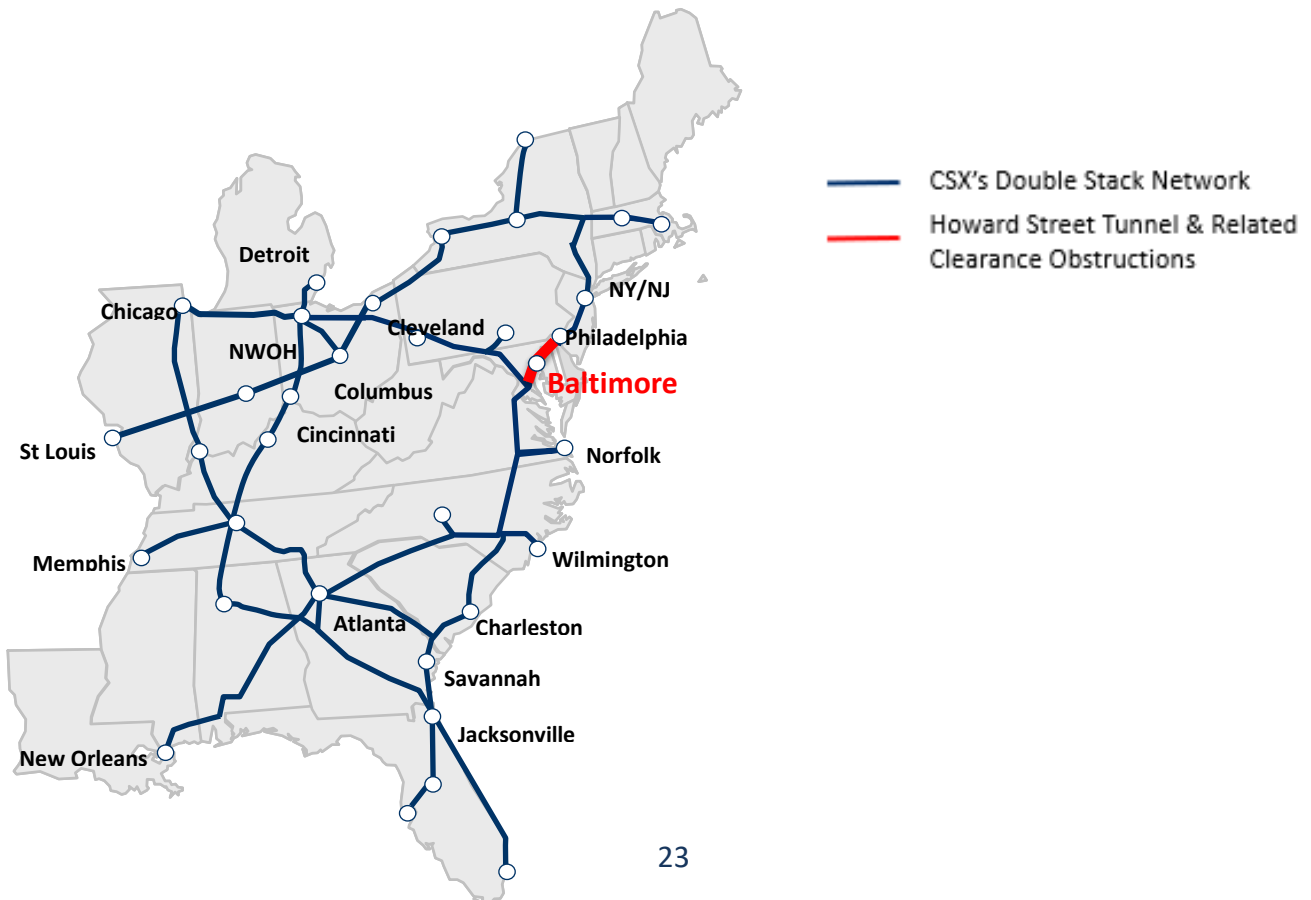
The Seagirt Marine Terminal is the Port's only dedicated container terminal with track rights belonging to the Canton Railroad, a short-line rail carrier owned by the Maryland Transportation Authority. Ports America Chesapeake has direct operational control of the ICTF at Seagirt Marine Terminal which allows rail access for CSX and Norfolk Southern through their agreement with the Canton Railroad. CSX currently provides daily international and domestic service to Chicago.

Major Projects

HOWARD STREET TUNNEL PROJECT

Double-stack capability on CSX's rail network has long been a priority for the MPA. The primary obstacle to achieving that goal has been CSX's Howard Street Tunnel ("HST"), a 129-year-old, 1.7-mile-long railroad tunnel through the heart of Baltimore City that is approximately 18 inches too low to accommodate double-stack intermodal trains. For years, it was thought that improvements to the existing tunnel would cost billions of dollars and be highly disruptive to the surrounding communities. Using advances in engineering technology, the MPA and CSX have developed a solution that can be delivered at a fraction of the original cost estimate with limited impacts to the public.

The HST Project is estimated to cost \$566 million and consists of vertical clearance improvements to the HST and 21 bridges located between Baltimore, Maryland and Philadelphia, Pennsylvania. The tunnel itself will be reconstructed within the existing envelope to provide the additional 18 inches of clearance needed for double-stack trains. For the bridges, most will only require track lowering beneath the bridge. There are three bridges in Baltimore City that require more extensive work to their superstructure: North Avenue over CSX, which will have a portion of its superstructure modified and rebuilt, along with Guilford Avenue over CSX and Harford Road over CSX, which will both be fully replaced with new structures. Once complete, the project will provide double-stack access to the Port's Seagirt Marine Terminal and connect the Port to 100 percent of CSX's primary intermodal network.



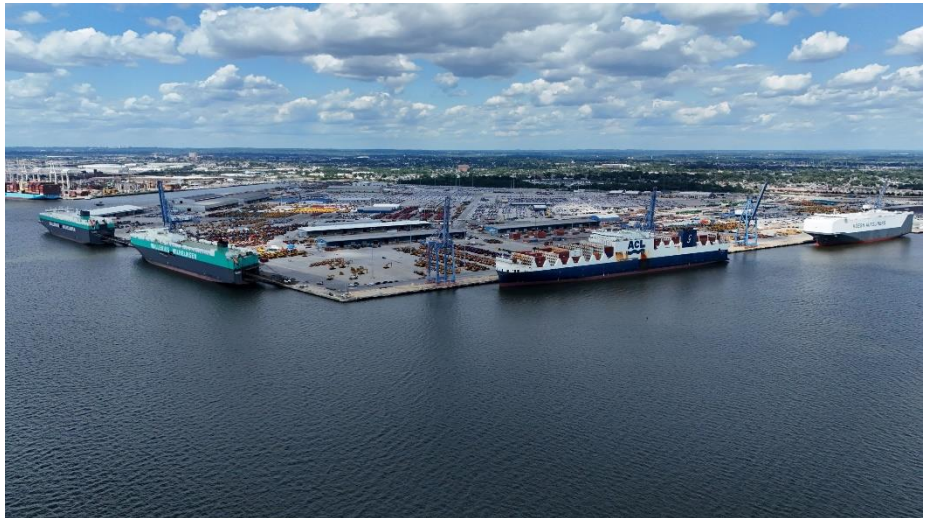
In July 2019, the State of Maryland was awarded a \$125 million INFRA grant from the USDOT for the HST Project. The remaining funding for the project will come from the State of Maryland, CSX, and Pennsylvania Department of Transportation. The Federal Railroad Administration issued final National Environmental Policy Act approval for the HST Project in June 2021. Project agreements were signed in November 2021. Construction is ongoing and is expected to be complete in 2027.

Once complete, the project will generate an additional 160,000 containers per year through Maryland's Port, 6,550 construction jobs, and an additional 7,300 jobs coming from increased business. In turn, the long-term jobs generate over \$1 billion annually in personal income, re-spending/local consumption, and business revenues, and an additional \$65 million annually in State and local revenue.

DUNDALK MARINE TERMINAL CLIMATE RESILIENCY PROJECT

Partially funded with a \$10 million FY 2020 USDOT BUILD Grant, the MPA will begin construction of the first of its three Dundalk Marine Terminal resiliency and flood mitigation improvements, including: a 2,300 linear foot box culvert with a pump for extreme rain events; 14-tidal gates ("backflow preventers"); and a perimeter barrier to prevent storm surge from overtopping the berths.

Storm surges are costly events that could flood up to 318 acres or 72 percent of Dundalk's open storage area, damaging high-value cargo. The project improvements will reduce the chance of catastrophic flood damage by 70 percent and avoid flooding that is currently experienced in some locations. The box culvert will also help reduce sediment discharge into the Patapsco River.



Dundalk Marine Terminal in Baltimore, Md

Due to rising costs of material and labor, MPA is working with USDOT to identify alternative sources of funding to advance the project through FHWA PROTECT formula funding. The project completed National Environmental Policy Act requirements with a Finding of No Significant Impact. Construction is expected to begin by late 2024 or early 2025.

Challenges: 2024 and Beyond

There are a variety of challenges on the horizon for the MPA and Maryland's Port. In addition to aggressive competition for port business and a slowing global economy, the challenges being faced include:

- **Recovery from the Key Bridge Incident**—While the channel is fully restored, there remains a long road ahead as the Port works to return cargo activity and associated overland shipping capacity to pre-Key Bridge-collapse levels and beyond.
- **An increasingly competitive environment**—The competitive environment among East, Gulf Coast, and Canadian ports has increased in recent years. Global logistics patterns have been shifting in response to changing trade patterns and increased options for the movement of freight. The MPA must remain competitive in the future through strategic partnerships, targeted capital investments, aggressive rates, outstanding quality programs, and exceptional customer relationships and services to maintain its competitive position relative to other ports. The MPA will continue to seek new cargo opportunities along with private sector partners, including the development of an on-dock, marine-based agricultural shipping operation.
- **Terminal system preservation needs**—Continued system preservation funding is critical to adequately maintain vital waterfront facilities in an increasingly harsh marine environment. In 2023, the MPA continued to perform Asset Management and Berth Inspection Programs that included three years of inspections that identified \$701 million of critical infrastructure preservation and reconstruction needs during the next six-years to ensure safety and operational integrity of the MPA's terminal berths and related infrastructure.
- **Sustainability of dredging and dredged material placement solutions**—Constraints on dredged material management solutions, the cost of dredging, and federal funding for ongoing maintenance dredging and dredged material management continues to be a focus of the MPA. Current capacity is inadequate to perform both maintenance dredging and new work private sector dredging projects without overloading the Harbor dredged material placement sites. The need remains to activate additional dredged material management solutions, such as large-scale Innovative Reuse, for the safe, long-term, and environmentally appropriate management of dredged material. Maintaining a sustainable, cost-effective, environmentally sensitive, and community-supported dredging program remains a considerable long-term challenge.
- **Continuing “ECO Port” and community initiatives**—The MPA has been an active partner in the protection and enhancement of the Chesapeake Bay, the communities surrounding the Port's facilities and the health of Maryland's citizens by supporting and advancing efforts to improve air and water quality. The MPA prioritizes its commitments to community engagement and partnerships as essential to its long-term sustainability, success, and growth.

To ensure future growth at the terminals, the MPA must continue to seek innovative solutions to air emission issues, particularly reductions in the use of diesel fuel. Diesel emissions remain the most significant source of emissions for the Port. Future solutions could include electrification or alternative, low-carbon fuels for cargo handling equipment.

- **Double-stack capability**—While construction is underway to address the double-stack bottleneck at HST, the improvements are still few years away from completion. The MPA will need to continue to engage with ocean carriers and beneficial cargo owners to attract as many containers as possible until the permanent double-stack solution is in place. The potential for double stacking from Baltimore will allow Maryland's Port of Baltimore to better compete for discretionary containerized cargo.
- **Limited space to grow**—As MPA seeks to expand cargo volumes, the availability of vacant space on our terminals proves a constraint. Without the ability to expand our footprint outwards, vertical development or higher velocity throughput of cargo out to surrounding distribution centers, warehouses, or storage lots will be vital.

Appendix

Contracts and leases approved by the Maryland Port Commission for FY 2024 (July 1, 2023 – June 30, 2024)

July 2023

1. Contracts #522802A and #522802B – Dredging and Coastal Engineering Services to support the State of Maryland's Dredged Material Management Program, Moffatt & Nichol, Baltimore, Maryland (#522802A), and Cahagan & Bryant Associates, Inc., Baltimore, Maryland (#522802B); Amount – \$5,000,000 (each contract); Term: August 24, 2023* – July 31, 2028 (*or earlier upon BPW approval).
2. Contract #522078 – Agency Wide Waterfront Structure Repairs at Maryland Port Administration (MPA) Marine Terminals, Ballard Marine Construction, LLC, Washougal, Washington; Amount – \$20,000,000; Term: August 24, 2023 – August 30, 2026 (*or earlier upon BPW approval).
3. Contract #518008, Modification No. 2 – Reconstruction of Berths 1- 6, Phase 3 – Berth 3 at Dundalk Marine Terminal, Cianbro Corporation, Baltimore, Maryland; Amount – \$947,558.89; Term: August 24, 2022* – August 25, 2023 (*or earlier upon BPW approval). Modification No. 2 increases the contract value to compensate the contractor for the additional costs of performance incurred to deal with unknown, differing site conditions encountered during construction and for increased costs of asphalt.

August 2023

No meeting was held in the month of August.

September 2023

1. Contract #519817 – Agencywide Facilities Improvement at Maryland Port Administration (MPA) Facilities, Baltimore Contractors, Inc., Glen Burnie, Maryland; \$10,000,000; Term: October 5, 2023 – October 4, 2026 (Three Years).

October 2023

There were no contracts requiring Maryland Port Commission approval.

November 2023

1. Contract #223016-S – Production of the Port of Baltimore Magazine, Media Two, LLC, dba Today Media Custom Communications; \$350,000. Term: January 1, 2024 – December 31, 2026 (Three Years with One (1) Two-Year Renewal Option).

December 2023

1. Contract #218035-IT, Modification No. 3 – IT Database Management Support, Client Network Services, LLC., Rockville, Maryland; \$190,349. Term: January 3, 2024 – June 30, 2024 (Six-month Extension).

January 2024

1. Contract #522089 – World Trade Center (WTC) Elevator Modernization; Elcon Enterprises, Inc., dba Elevator Control Services, Upper Marlboro, Maryland; \$6,762,935. Term: 572 Workdays.
2. Contract #219031-IT, Modification No. 2 – Programming Support Services [for the Port Operations and Security System (POSS) and other MPA information technology systems and projects]; Advanced Analytical Systems, Inc., Chantilly, Virginia; \$4,275,527. Modification Term: Add three resources to the contract for the period of February 15, 2024 – September 30, 2024, and exercise the first and only five-year renewal option (including the additional three resources) for the period of October 1, 2024 – September 30, 2029.

February 2024

The meeting for the month of February was canceled.

March 2024

1. Contract #522803 – Environmental Engineering Consulting Services for Various Locations to support the State of Maryland's Dredged Material Management Program (DMMP), Straughan Environmental, Inc., Columbia, Maryland. Amount: \$3,000,000. Term: April 4, 2024 – April 3, 2029 (Five Years).

April 2024

1. Contract #224006-S – Shuttle Bus Services at South Locust Point Cruise Terminal, Dream Management, Inc., Baltimore, Maryland; \$298,468. Term: July 1, 2024 – June 30, 2027 (Three Years with Two (2) One-Year Renewal Options).
2. Contract #522030R – Shed 201 B Roof Replacement at Dundalk Marine Terminal, Ruff Roofers, LLC, Baltimore, Maryland; \$5,826,390. Term: 420 Workdays.

May 2024

1. Contract #224001-S – Security Guard Services at MPA Facilities, Universal Protection Service, LLC, dba Allied Universal Security Services, Conshohocken, Pennsylvania, \$16,401,930. Term: August 4, 2024 – August 3, 2027 (Three Years with One (1) Three-Year Renewal Option).
2. Contract #224034-S – Janitorial Services at South Locust Point Cruise Terminal, Pierce Contracting Services, LLC, Odenton, Maryland, \$325,000. Term: July 1, 2024 – June 30, 2027 (Three Years with One (1), Two-Year Renewal Option).
3. Contract #220005H-S – Innovative Reuse of Dredged Material; Northgate Environmental Management, Inc., Frederick, Maryland, \$299,701. Term: One Year from Notice to Proceed. This contract will provide the Maryland Port Administration (MPA) with a study of the use of dredged material as supplementary cementitious material and cement clinker.
4. Contract #218035-IT, Modification No. 5 – IT Database Management Support, Acentra Health, LLC, Rockville, Maryland, \$190,349. Term: July 1, 2024 – December 31, 2024 (Six-month Contract Extension).

June 2024

1. Contracts #522827A, #522827B, and #522827C – Miscellaneous Engineering Services (Work Order Based Contracts for MDOT MPA Facilities); Total Amount – \$21,000,000. Term: July 18, 2024* – July 17, 2029 *(or earlier upon BPW approval) (Five Years):
 - Contract A – Whitney, Bailey, Cox & Magnani, LLC, Baltimore, Maryland; \$7,000,000
 - Contract B – Johnson, Mirmiran & Thompson, Inc., Hunt Valley, Maryland; \$7,000,000
 - Contract C – Moffatt & Nichol, Inc., Baltimore, Maryland; \$7,000,000