

Maryland Port Administration

2024 Sustainability Report



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Message from the Governor

Since becoming governor, my administration has taken strong steps to ensure that Maryland is on the right path toward a sustainable future. Building a competitive state and a sustainable one are not mutually exclusive and don't require a choice. We will do both at the same time. Improving our climate and doing things responsibly with a focus on sustainability is about more than avoiding disaster. It's about growing opportunities. Opportunities like having zero-emission heating equipment standard regulation and working with the Regional Greenhouse Gas Initiative to establish a new cap for carbon dioxide emissions from power plants that align with Maryland and partner states' 100 percent clean energy goals.

In 2024, I signed an executive order to advance Maryland's Climate Pollution Reduction Plan. It is one of the most comprehensive orders on climate change ever issued in our state and it directs a whole-of-government approach to address climate change, including requiring agencies maintain a Climate Implementation Plan, new actions to propose new emissions standards, and the creation of the Governor's Subcabinet on Climate. The order also calls for the Maryland Energy Administration to establish a framework for a clean energy standard to achieve 100 percent clean energy by 2035 and directs the Maryland Department of Transportation to undertake several measures to promote clean transportation.

Climate action is about growing opportunities. The Climate Pollution Reduction Plan supports the goals of the Climate Solutions Now Act of 2022, which requires Maryland to reduce greenhouse gas emissions by 60 percent below 2006 levels by 2031 and reach net zero emissions by 2045. The Plan estimates that the implementation of new climate policies will generate up to \$1.2 billion in public health benefits, a \$2.5 billion increase in personal income for Marylanders, and a net gain of 27,400 jobs between now and 2031.

We will continue to pursue and implement sound sustainable measures that will benefit Maryland in different ways. We will win because we work together, we will win because we tackle our goals with action, and we will win because we leave no one behind.

— Wes Moore



**GOVERNOR
WES MOORE**



Message from the Transportation Secretary

The Maryland Department of Transportation is building transportation services for the future -- services that offer physical mobility and accessibility to affordable housing, jobs, food, healthcare, amenities and other critical services needed for everyday living. Whether it's mass transit, highways, or the Port of Baltimore, these MDOT services support access, mobility, and economic development.

We take a comprehensive approach to environmental stewardship and sustainability. This facilitates programs in air quality, climate resilience, energy, land and water resources, and regulatory compliance. These considerations are integral in our transportation planning, design, construction, and day-to-day operations.

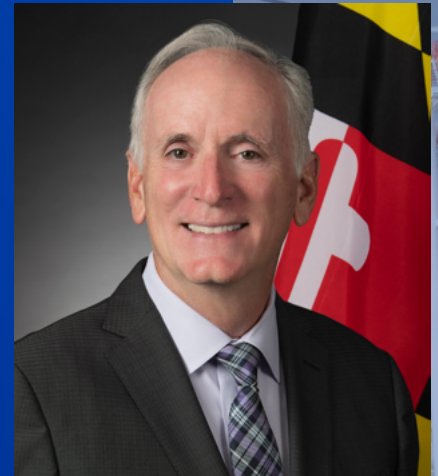
All our transportation modes believe that protection of human health and natural resources and the implementation of environmentally responsible business practices are essential elements of their missions. Our strong commitment includes minimizing transportation activity impacts to marginalized communities and ensuring meaningful involvement in decision making processes. MDOT remains committed to supporting larger societal goals, partnering with the communities we serve and promoting social equity, environmental protection and sustainable communities.

Our environmental compliance includes pollution prevention and recycling policies that preserve natural resources, reduce waste, save energy, and improve air and water quality. We've also taken strong steps to reduce conventional energy use through efficiency measures and by expanding our renewable energy sources, including solar and tax credits for electric vehicles.

MDOT projects are reviewed as normal business practices for impacts to trees, water, wetlands, wildlife, and aquatic life. We also work closely with our environmental partners to improve the water quality of our Chesapeake Bay. Each of our transportation modes incorporate environmental best practices, such as reducing pollution in stormwater runoff from state highway projects. Mitigation efforts are also part of our game plan when impacts cannot be avoided. This may mean restoring a stream or planting trees, or even habitat restoration for birds, mammals, and aquatic life at the Maryland Port Administration's Poplar Island.

AT MDOT, we're proud to play a big role in helping to establish a strong path forward for sustainability in our state.

— Paul J. Wiedefeld



**PAUL J.
WIEDEFELD**



Message from the Executive Director

Balancing and integrating our core mission of increasing waterborne commerce through Maryland to generate economic benefits along with providing forward-thinking environmental solutions drives us at the Maryland Port Administration. Our determined focus on smart sustainability aligns with Governor Moore's vision to make sure Maryland is on the right path toward a sustainable future.

It is with this direction that we are so excited to be moving forward with our private partners in the U.S. Environmental Protection Agency's Clean Ports Program. The program enables the Maryland Port Administration, along with our partners CALSTART, Capital Logistics, C. Steinweg Group, Ports America Chesapeake, SSA Marine, and Wallenius Wilhelmsen to purchase 213 pieces of new zero-emission vehicles, equipment, and charging infrastructure that will replace old, inefficient, and polluting diesel combustion engines. The Clean Ports Program will also fund capacity upgrades to the Port of Baltimore's electrical grid, which will help reduce greenhouse gas emissions by an estimated 35 percent in carbon dioxide emissions compared to 2020 Levels.

Equally as important, the program supports community engagement with neighborhoods located near the Port that have borne the brunt of transportation-related health impacts. Thanks to these grants, the Port of Baltimore and its partners are accelerating their collective efforts to support Maryland's climate goals of reaching net zero by 2045.

The Port of Baltimore is one of Maryland's leading economic generators with more than 20,000 direct jobs and more than 273,000 jobs in Maryland connected to our busy Port. Establishing an effective balance of commerce and the environment is not mutually exclusive. Working closely with our customers, environmental partners, and neighboring communities, we will continue to do all we can to reduce emissions, improve air and water quality, and continue down a responsible and sustainable path.

— Jonathan Daniels



JONATHAN DANIELS



Maryland Department of Transportation and Maryland Port Administration

Maryland Port Administration (MPA) is a mode of the Maryland Department of Transportation (MDOT) and supports its mission to provide a well-maintained, sustainable, and multimodal transportation system that facilitates safe, convenient, affordable, and efficient movement of people, goods, and services.

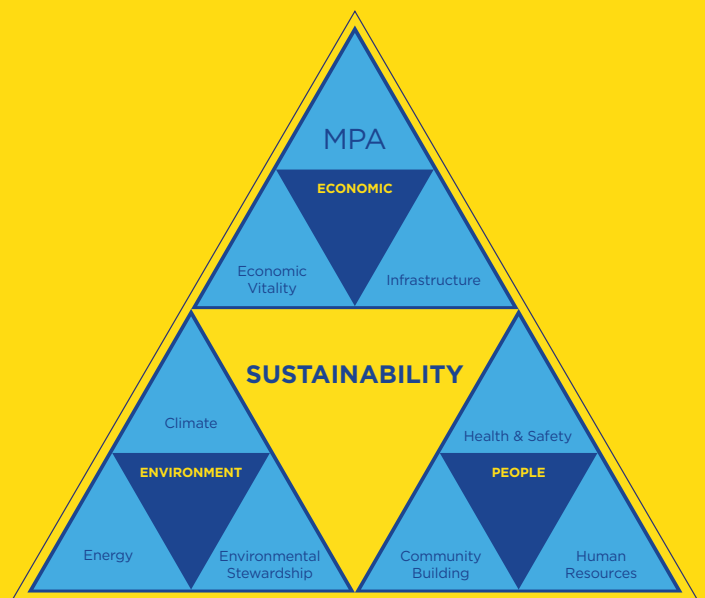
As a crucial partner in developing and implementing MDOT plans to improve infrastructure resilience, promote decarbonization, and integrate climate-conscious transportation, MPA continues to leverage available program funding to advance projects that move us closer to our net-zero goal and help mitigate, prepare, and adapt to the consequences of climate change.



Our Commitment to Sustainability

MPA is proud to be a key economic driver in a forward-thinking state, and our approach to sustainability aligns with Governor Moore's vision to address climate change while creating a more robust regional economy. Operating in the Chesapeake Bay, the largest estuary in the United States and one of the most economically significant regions in the country, MPA is committed to driving Maryland's vitality under the guiding principle that economic, social, and environmental sustainability are all essential components of our mission.

This report covers implementation, expansion, and resilience activities throughout 2024 that bolster sustainable economic vitality, infrastructure, human resources, health, and safety, environmental stewardship, climate and energy, and community building. Taken together, these programs ensure the Port and the surrounding communities and region will continue to grow and thrive.

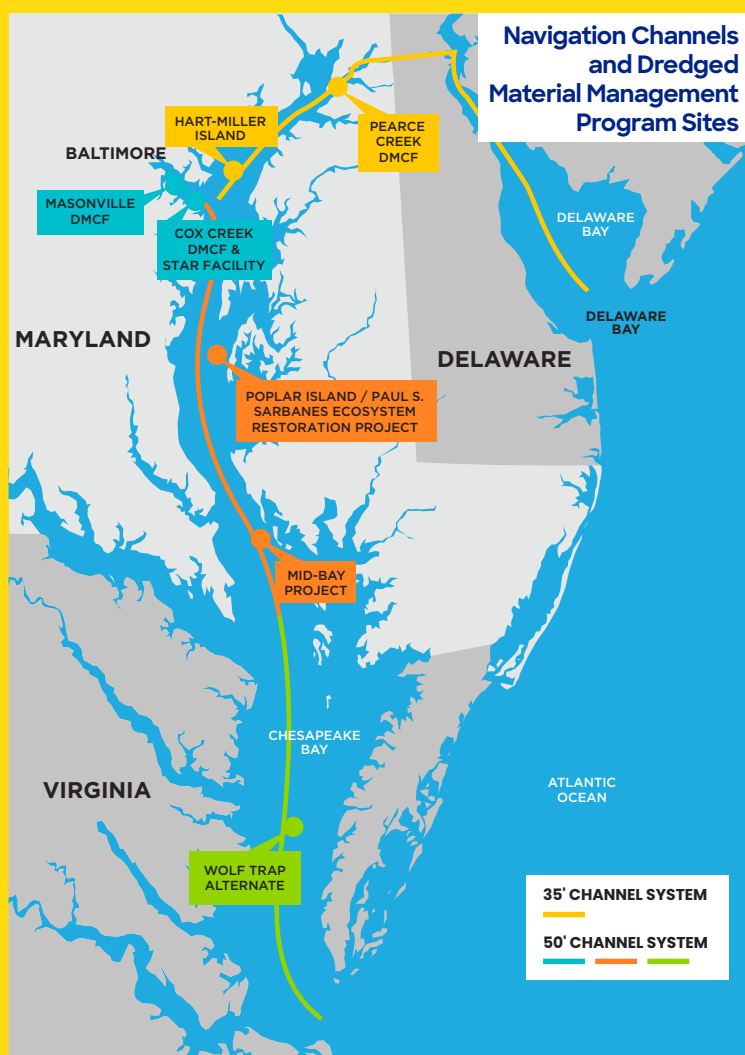
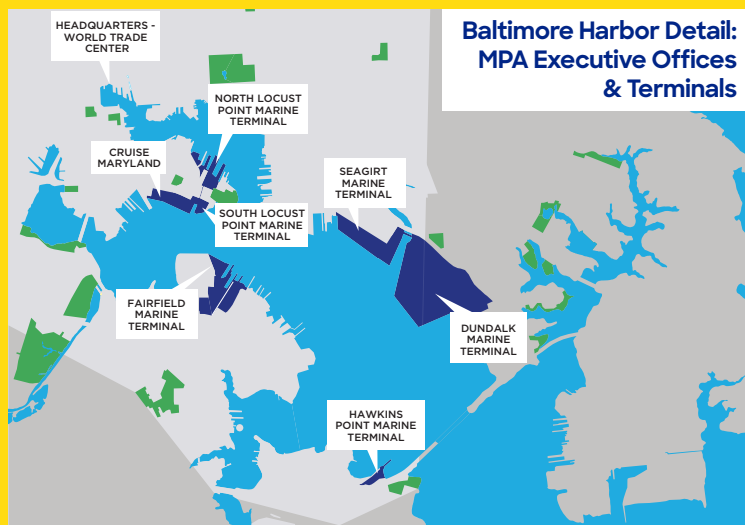


An MPA Overview

The Port of Baltimore is a dynamic network of terminals, companies, and infrastructure stretching across the Chesapeake region. MPA plays a central role, working alongside private partners and sister agencies to keep operations running smoothly while directly managing key facilities and infrastructure:

- MPA's executive offices are located at the World Trade Center Baltimore, which anchors the region's international commerce efforts.
- MPA operates six marine terminals, which includes Cruise Maryland, facilitating the movement of goods and passengers.
- Maintaining 130 miles of navigation channels is a critical MPA responsibility. Each year, approximately 5.8 million cubic yards (mcy) of material is dredged from the channels and is managed at a series of sites throughout the bay.

MPA's mission is to stimulate the flow of waterborne commerce through the ports in the State of Maryland in a manner that provides economic benefit to the citizens of the state.





Economic Vitality

The Port of Baltimore has a profound economic impact on Maryland's economy, contributing more than \$51 billion in total economic impact annually and supporting approximately 273,000 jobs. It is a key contributor to the economic prosperity of the region.

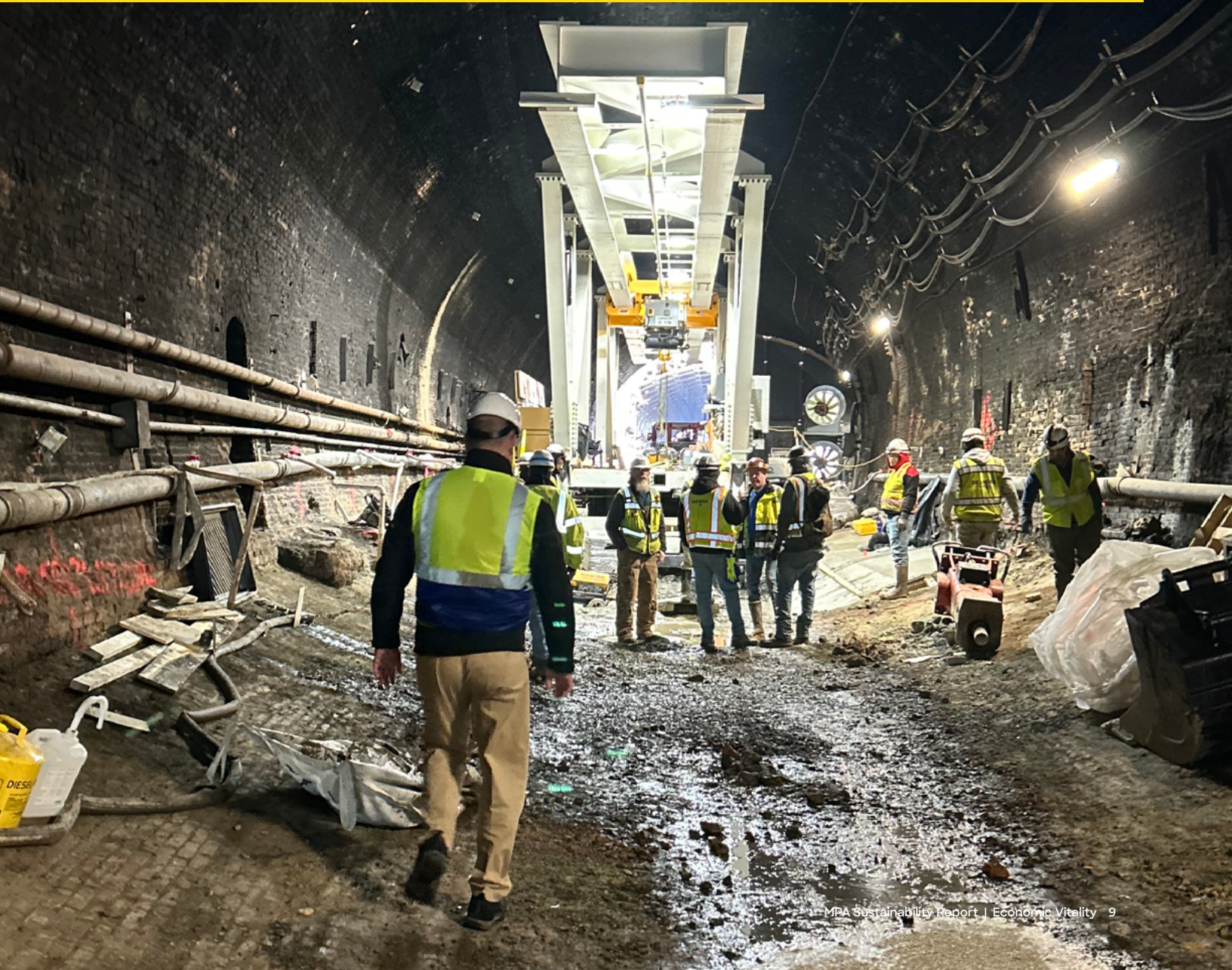
Strategically located on the Patapsco River near the Chesapeake Bay, the port offers easy access to major East Coast markets—just 70 miles from Washington, D.C. and 200 miles from New York City—positioning it as a key hub for global trade and logistics. Each year, MPA handles more than one million 20-foot containers and moves a diverse array of cargo including automobiles, salt, produce, and household goods.



Double Stacking Through the Howard Street Tunnel

Reconstruction of the 130-year-old, CSX-owned Howard Street Tunnel will enable double-stack intermodal container trains to move in and out of the Port by removing **22 clearance obstructions** between Baltimore and Philadelphia representing the last major bottleneck to move double stack cargo through Baltimore. By October 2024, all of the obstructions north of Baltimore were cleared, which allowed double-stack container rail operations on a temporary route through Delaware, Pennsylvania, New Jersey, New York and into the Midwest.

The full completion of the Howard Street Tunnel Project is expected to **increase business at the Port of Baltimore by approximately 160,000 containers annually** and generate nearly 14,000 jobs, which include construction jobs on the project and jobs that will be created by the anticipated increase in business. In addition, the project will reduce carbon emissions due to decreased highway congestion, improve supply chain efficiency, and alleviate the remaining transportation bottlenecks on CSX's rail network by creating the shortest distance high-capacity rail conduit from the Mid-Atlantic to the Upper Midwest—a game changer, not just for Maryland, but for the region.



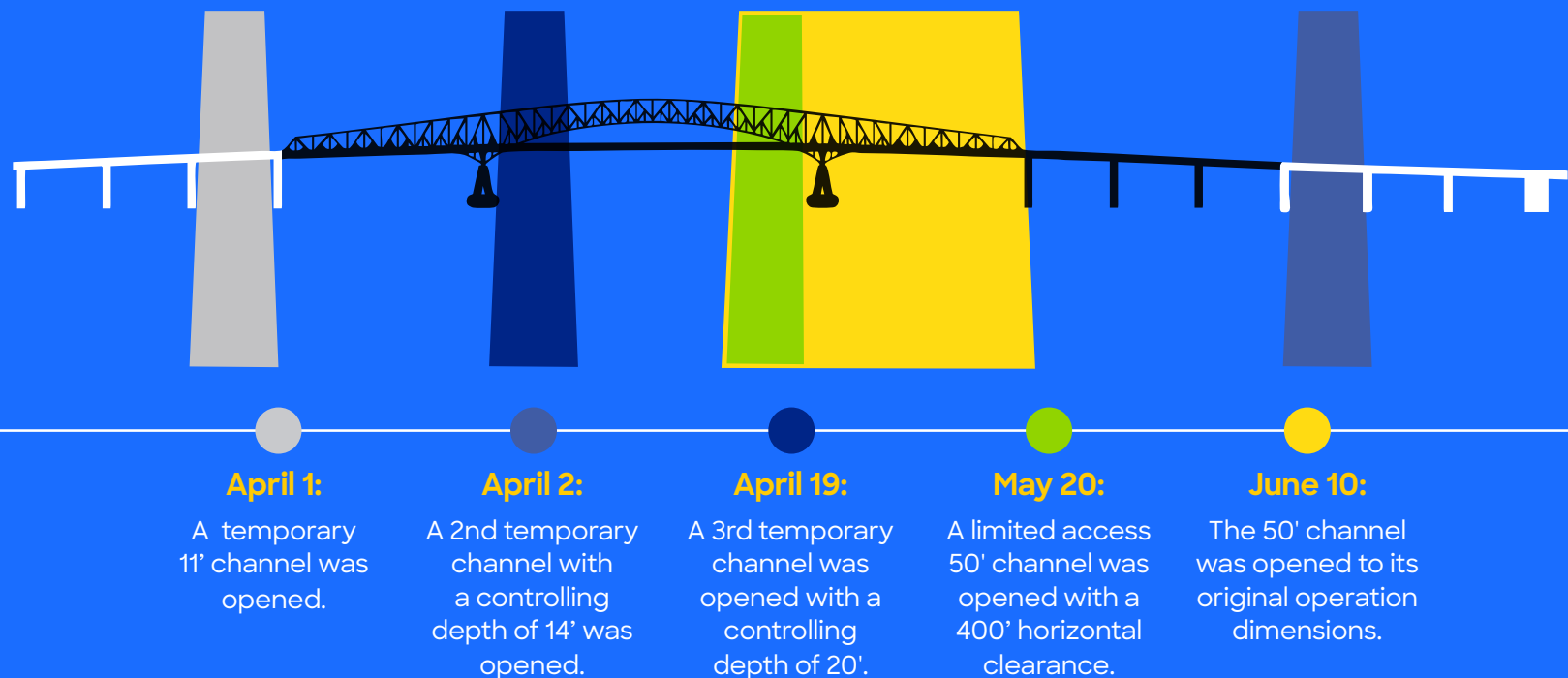
Key Bridge Rebuild

Event Timeline

On March 26, 2024, a 100,000-ton container ship, the Dali, collided with the Key Bridge, plunging the bridge into the Patapsco River, and closing the 700-foot-wide shipping channel into the Port. This event put nearly 2,500 longshoremen out of work, and affected a daily workforce of 8,000 truckers, pilots, and terminal, rail, and tugboat operators.

Within one day, through the Unified Command, MPA quickly mobilized and established an Incident Command Post at the cruise terminal. Despite profound challenges the **Port of Baltimore never fully shut down**, maintaining operations at Tradepoint Atlantic. MPA worked in close coordination with local, state and national agencies to swiftly complete response and recovery efforts.

This graphic shows the channels opened over the 10-week period as the Port regained full access to the channel.



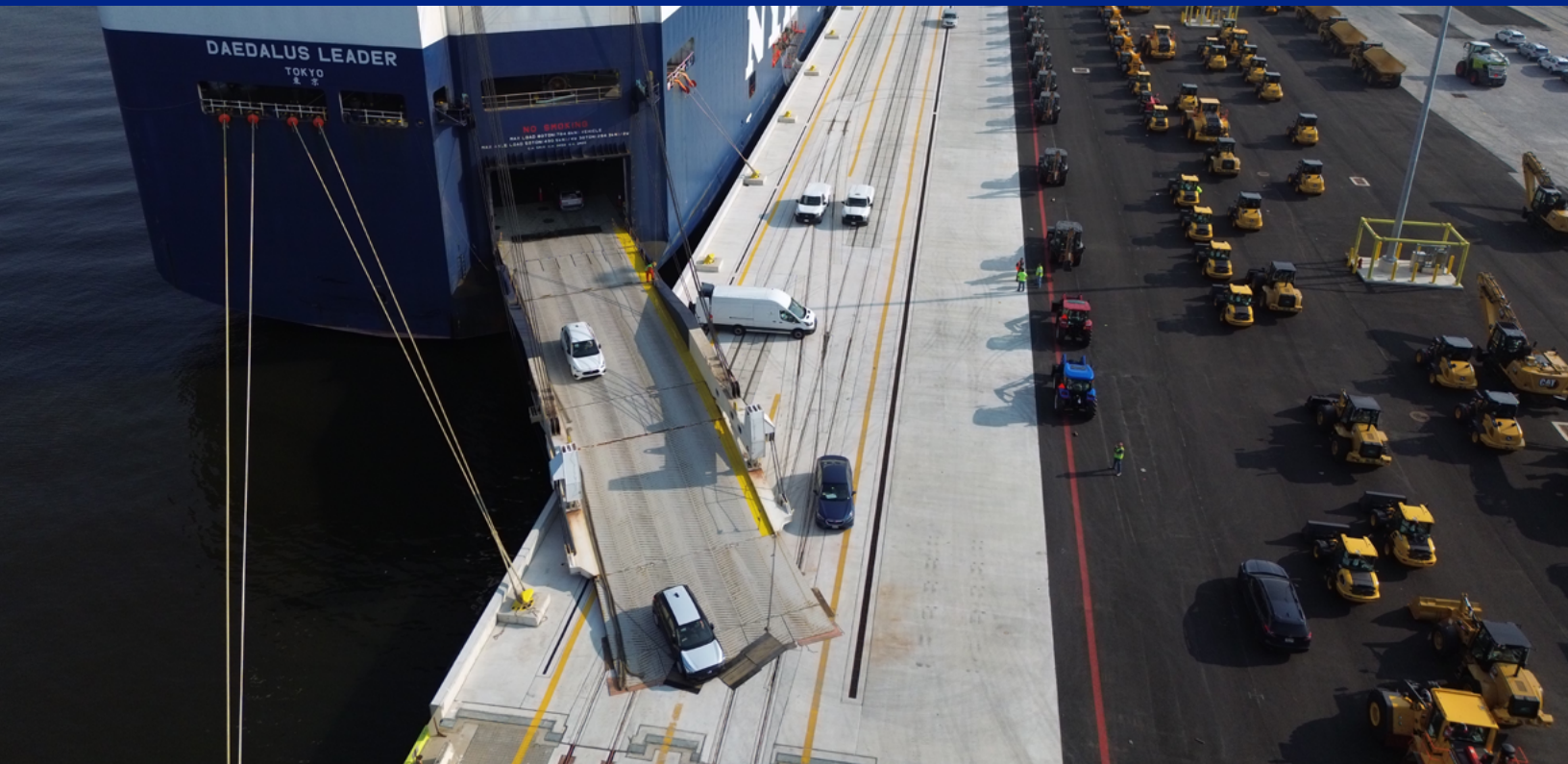
Communicating Progress

Throughout it all, MPA kept stakeholders and affected communities informed by regularly posting 'Port Updates.' From committee meeting briefings to union member and business leader updates to keeping the general public up to date, MPA was diligent and transparent in sharing information.

"I am grateful for the extraordinary work of the Unified Command, whose members moved with speed and focus to lift thousands of tons of steel out of the water without a single injury," said Governor Wes Moore. "They have been true partners in this work, and they proved what it means to be Maryland Tough and Baltimore Strong."

Smooth Sailing for Cruises

Cruise activity supports **more than 400 jobs** and **approximately \$1 million per cruise** in economic benefits, including local spending on hotels, dining, and entertainment. Looking to the future, the Port recently signed a five-year agreement with Carnival Cruise Line. In December 2024, Cruise Maryland ranked #1 in Royal Caribbean's entire fleet for customer satisfaction.



Cargo Coming Out On Top

Despite the unprecedented operational challenges caused by the Dali's destruction of the Key Bridge, the Port sustained strong cargo performance, although its performance likely would have been even better if cargo activity had been not disrupted due to the destruction of the Key Bridge. The Port continued to handle a broad array of cargo types that included:

- **706,335 tons** of roll on/roll off (Ro/Ro) farm and construction machinery
- **749,799 vehicles** (automobiles/light trucks)
- **8.2M tons general cargo**, 741,215 twenty-foot equivalent units containers

Port's National Ranking:

- **#1** for imported gypsum and forest products
- **#2** for Ro/Ro automobiles and light trucks, imported sugar and salt, exported coal
- **#11** in total tons handled and **#10** in total cargo value handled



Partner Growth at the Port

Port tenants and partners are making investments that reflect ongoing growth and contribute to the economic viability of the region.

- In partnership with GXO Logistic, Conair opened a new Maryland Distribution Center in Hagerstown, Maryland. GXO estimates that the Center's proximity to major consumer markets will eliminate 4.7 million transportation miles, **reducing Conair's annual CO₂ emissions from distribution operations by approximately 2,100 metric tons.**
- McCormick Spice consolidated several warehouses into one facility at Tradepoint Atlantic, **adding 1.85 million square feet of capacity and approximately 300 jobs to the Port.**
- Floor and Décor opened a second **1.1 million square foot distribution center** at Tradepoint Atlantic.



Minority- and Veteran-Owned Business Partnerships

MPA contributes to a strong and diverse regional economy by doing significant business with minority, women, and veteran owned companies.

- **49 contracts** awarded to Prime and Subcontractor Minority Business Enterprise (MBE) firms.
- **16%** of all procurement expenditures allocated to MBE firms.
- **\$13,736,347** awarded to MBE firms.
- **\$398,612** to Veteran-Owned Small Business Enterprise firms.



Grant Funding

The Port has secured millions of dollars of federal and state grant funding for programs that benefit the Port and the surrounding communities and region. In 2024, **MPA was awarded \$191,726,145 in federal grants.** In addition, MPA submitted proposals for \$5,624,230 in 2024 that were not awarded. By pursuing these funding opportunities, MPA reduces strain on the state budget and makes implementation of forward-thinking sustainability initiatives possible.

Metrics Roundup



Infrastructure

MPA is committed to developing, maintaining, and partnering to achieve sustainable infrastructure for the Port, its operations, and the surrounding area. This means making a conscious effort to address system preservation, while improving efficiencies in terminal operations, transportation, and material.



Seagirt Loop Channel Receives Authorization

Working with the U.S. Army Corps of Engineers (USACE), MPA is expanding the Seagirt Loop Channel by deepening the channel to 50 feet and widening the channel at bends. Progress on this transformational project continued as construction authorization was approved by Congress and planning began. The proposed improvements will enable a continuous loop of ship traffic, resulting in safer and more efficient navigation to help meet the demand for future capacity at Port facilities, including increased container volume at the Seagirt Marine Terminal expected from the Howard Street Tunnel Project. The preconstruction, engineering, and design phase for this project is expected to be completed in 2026.

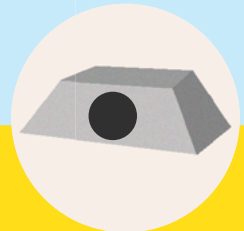
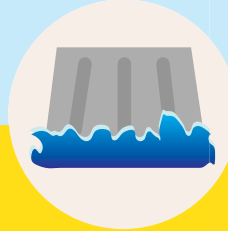
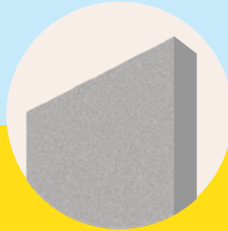


Dundalk Marine Terminal

Improving the Port's Largest Cargo Facility



Electrical system design is underway, laying the groundwork for a full-scale **electrification transformation**.



New seawall, tidal gates, and drainage upgrades strengthen the site's **flood resilience**.



Streamlined entry design is **reducing truck idling and emissions**.



On-site interceptor removed 12.5 tons of debris in 2024, **protecting local waterways**.



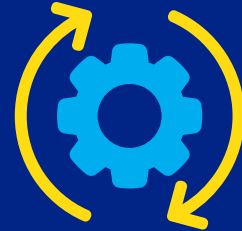
Upgrading Facilities

At MPA's headquarters in the World Trade Center Baltimore, various upgrades and modernizations were made to improve building efficiencies, including converting to LED lights, modernizing the elevator system to reduce energy usage by up to 50% (to be completed in 2025) and rehabilitating four air handler units (AHU) to reduce air leakage, remediate corrosion, and replace outdated components (also expected to be completed in 2025).

Designs for replacing the main AHUs at the Cruise Terminal, part of the South Locust Point Marine Terminal are in development, with plans to implement a heat pump system to replace the existing gas-fired heating system. This upgrade will **reduce fossil fuel emissions and improve overall energy efficiency**.

There were several **Dredged Material Containment Facility (DMCF) expansion efforts in 2024**, representing important progress toward meeting the Port's ongoing dredged material capacity needs.

- MPA achieved a significant construction milestone with the Cox Creek DMCF Expansion by raising the upland dike, perimeter dike, and cross dike to +60 feet.
- Dike raising at the Masonville DMCF to an elevation of +30 feet is 50% complete and slated for completion ahead of schedule by the end of 2025.



Taking Technology and Cybersecurity to the Next Level

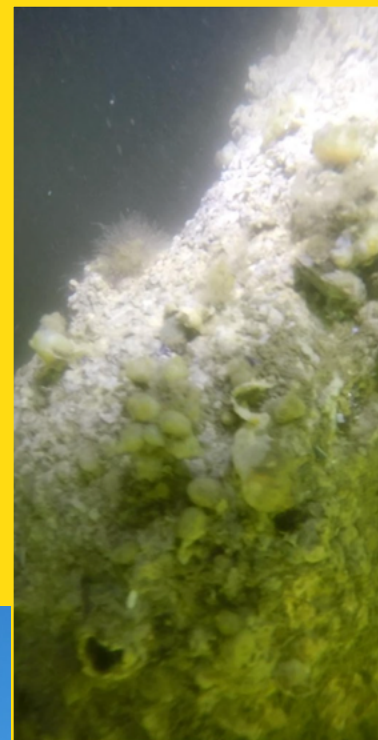
Firmware upgrades were made to 108 radios to allow for over-the-air updates, so MPA radios now automatically receive MD FIRST statewide updates.

With the **Port Security Grant Program Cybersecurity Award**, MPA is conducting a security assessment and risk-based analysis of our six marine terminals to support updating our Facility Security Plan.



Building Artificial Reefs

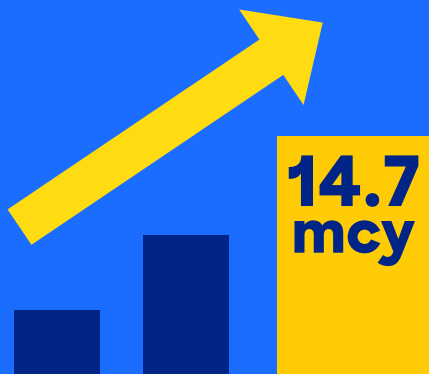
Discarded materials can be used to create artificial reefs, providing valuable habitat for aquatic life. **Repurposed concrete from infrastructure work was used to create an artificial reef**, with 5,400 cubic yards of concrete rubble placed over a 48,000 square foot area at Hackett's Point reef site, just south of the Bay Bridge on the Western side of the Chesapeake Bay. The material came from the replacement of the Fairfield Marine Terminal Pier 4, which generated a total of 10,084 tons of concrete when the old pier was removed.



Metrics Roundup



The creation of the artificial reef at Hackett's Point saved 675 dump truck loads of debris from being transported, creating 1,152 pounds of carbon emissions reduction through 3,563 haul-ton miles avoided.



Upon completion of the +80 foot dike raising, the capacity at Cox Creek will be expanded to 20.9 million cubic yards (mcy). **Raising the dikes to +60 feet will expand capacity to 14.7 mcy.**

Human Resources, Health, and Safety

MPA holds the safety and well-being of employees as a top priority and believes very strongly in supporting its personnel with continuous training opportunities for personal and professional growth. MPA proudly promotes externships for current employees and internships that welcome college-age students into the industry. Workforce development and continual safety exercises for employees that engage with heavy equipment are also integral parts of MPA operations.



Training MPA Team Members for Success

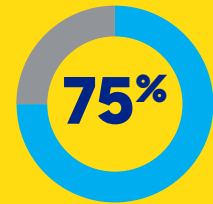
A wide array of trainings were conducted to improve the health, safety, and well-being of Port employees, including: managerial training to bolster understanding of the discipline process and to improve the recruiting, interviewing, selecting, and hiring processes; and employee training on the grievance process, sexual harassment, and emergency operations and coordination. Trainings developed in 2024 for future use will focus on performance appraisals, active aggressors, suspicious packages, and other emergency preparedness topics.

Growing the Port's Workforce

Career Fairs and Recruitment efforts directly undertaken by MPA in 2024 include: the College & Career Fair at Edmondson-Westside High School, the Manufacturing, TransPortation, & Retail Career Fair, the Forest Park Annual Career Awareness Fair, the State of Maryland Fall Job Fair, and the Mayor's Office of Employment Development Career and Resource Fair.

With support from MPA and industry professionals, the Baltimore Port Alliance (BPA) hosted its sixth Hiring and Career Expo, bringing together 34 employers and more than 300 job-seekers, making it the largest expo to date. The event also matched five support organizations with workers impacted by the Key Bridge collapse.

HIRING AND CAREER EXPO HIGHLIGHTS



75% of job seekers at the Hiring Expo learned about opportunities for which they will apply



78% of employers intend to interview or make offers to candidates they met



100% of exhibitors would attend the event again



Supporting Early Career Growth

The Community College of Baltimore County, in collaboration with MPA and BPA, hosted its annual **Maritime Educator Externship** in July. The week-long program taught nine local secondary teachers, career coaches, guidance counselors, and administrators about maritime and logistics career pathways.

Now in its second year, MPA cohosted the Masonville Cove Links **WildSTEM summer internship** program, which provided four college interns with exposure to conservation career paths, practical experience, and a pathway for future career and leadership opportunities.



Prioritizing Port Security

MPA hosted **64 onsite inspections** designed to ensure the safety and security of employees at the Port's public marine terminals. MPA also invited local and federal emergency responders to **seven separate emergency training drills** designed to familiarize those personnel to the Port.

MPA executed or participated in exercises to **ensure readiness and a clear communication structure** for events such as: Maryland Fleet Week, Severe Weather Contingency Planning, Command Post Responsibility, Hurricane Debby Virtual Command Post, the Annual WTC Fire Drill, Hart-Miller Island (HMI) Joint Annual USCG Oil Spill Response, Poplar Joint Annual USCG Oil Spill Response Exercises, Port of Baltimore Tabletop Exercises, and a Communication Interoperability Exercise.

To mitigate environmental and health impacts, MPA is investing in **newer and safer wash treatments for equipment and cargo** in a partnership with Dundalk Marine Terminal-based Lanodir.



Metrics Roundup



Environmental Stewardship

The Chesapeake Bay is the gateway to the Port of Baltimore and its watershed is home to over 18 million people and 3,600 species of plants and animals. Protecting this national treasure and the people, plants, and animals that live within it are essential elements of MPA's mission. Recognizing that stewardship extends beyond the Port and the water's edge, MPA has invested in innovative programs that further environmental stewardship, reuse of dredged material, and water quality improvement.



Innovative Reuse & Beneficial Use

Putting Dredged Material to Work for Communities and the Chesapeake Bay

Innovative Reuse (IR): Cutting-Edge Approach to Dredged Material Use

9

Research and Development projects

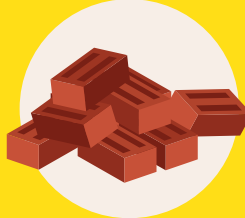
using dredged material to create industrial, horticultural, and agricultural products are showing commercial viability.



**Supplementary
Cementitious Material**



**Lightweight
Aggregate**



Bricks



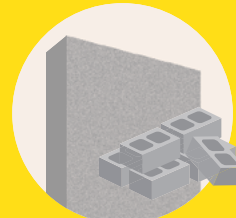
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**3-D Printed Shoreline
Protection Barriers**



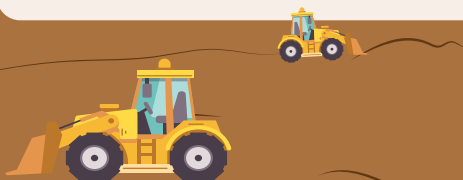
Reef Balls



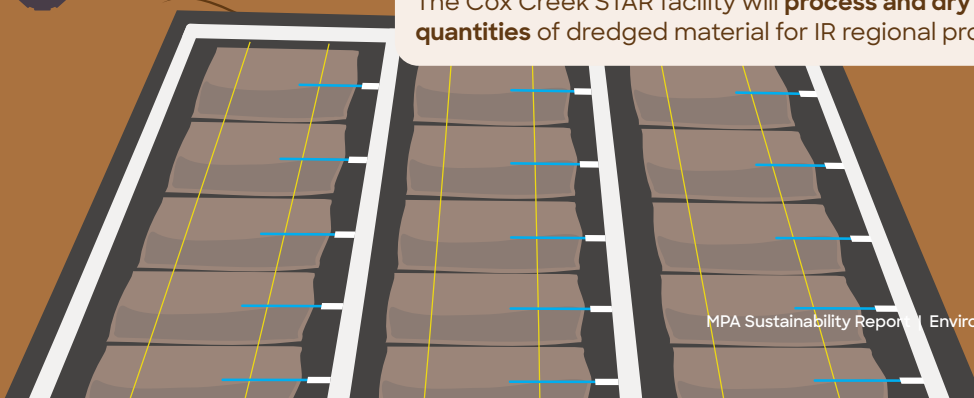
**Concrete
Retaining Walls**

The Cox Creek Sediment and Technology Reuse (STAR) Facility Preparing for Production

The Cox Creek STAR site is undergoing a structured, multi-phase remediation process to address legacy contamination.



The Cox Creek STAR facility will **process and dry large-scale quantities** of dredged material for IR regional projects.



Beneficial Use (BU): Restoring Habitat with Dredged Material

PAUL S. SARBANES ECOSYSTEM
RESTORATION PROJECT AT POPLAR ISLAND

260+
species

of birds identified on site,
establishing it as
a significant habitat

POPLAR ISLAND

1,715
acres

of Internationally
acclaimed BU work

SUPPLIED DREDGED MATERIAL FOR
COMMUNITY PROJECTS INCLUDING:

Race Street
Wetlands
restoration in
Baltimore City

Stoney
Beach
Restoration
in Anne
Arundel
County

POPLAR ISLAND

10M+
fish

thrive in surrounding
waters

Planning for Future Benefit

THE MID-CHESAPEAKE BAY ISLAND
ECOSYSTEM RESTORATION PROJECT

2,144
acres

of land and tidal wetlands
on James and Barren
Islands are being restored.

BARREN ISLAND

Phase I of Barren Island
construction is complete
and Phase II has begun.

— Phase I
— Phase II and beyond

James
Island

JAMES ISLAND

Design work is
65% complete.

Raising the Bar for Water Quality



MPA has supported construction of four water-based trash wheels to remove and prevent trash from entering the Baltimore Harbor and Patapsco River. The original Mr. Trash Wheel has been joined over the years by other “family members” – Captain Trash Wheel, Professor Trash Wheel, and Gwynnda the Good Wheel of the West. **In 2024 these wheels collected 437.5 tons of debris.**



As part of its Municipal Separate Storm Sewer System (MS4) permit compliance efforts, MPA continued to ensure adherence to best management practices (BMPs) by conducting annual tenant inspections for stormwater management, spill prevention, and pollution reduction. **Inspections have been completed for 20 tenants, spanning more than 9 terminals and auxiliary properties.**



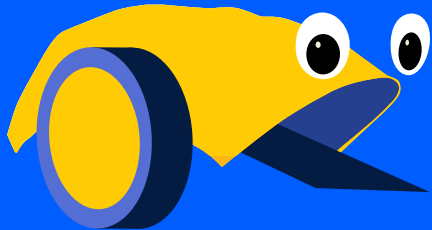
Nearly one ton of debris was removed from the Masonville Cove and Cox Creek shorelines during clean-up events in 2024, and **nearly 6.5 tons have been removed** since cleanups began.



MPA is a partner in the Great Baltimore Oyster Partnership, a community-based oyster restoration effort that has grown **over 1.3 million young oysters** to date. Oysters support both the Bay and our economy by filtering pollutants and providing habitat for fish and crabs.



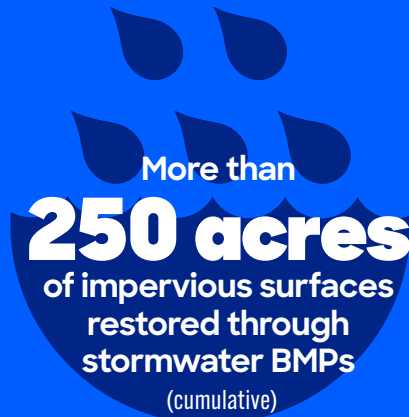
Metrics Roundup



3,275 tons

OF DEBRIS REMOVED BY THE TRASH
WHEEL FAMILY SINCE INCEPTION

(cumulative)



More than

250 acres

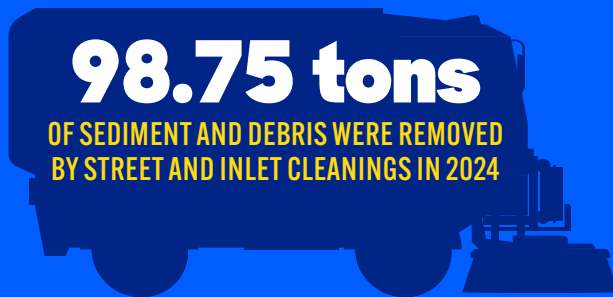
of impervious surfaces
restored through
stormwater BMPs

(cumulative)



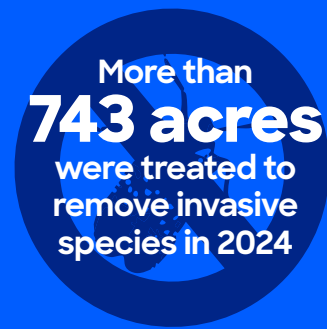
155

BAGS OF TRASH COLLECTED THROUGH
ADOPT-A-HIGHWAY EFFORTS



98.75 tons

OF SEDIMENT AND DEBRIS WERE REMOVED
BY STREET AND INLET CLEANINGS IN 2024



More than

743 acres

were treated to
remove invasive
species in 2024

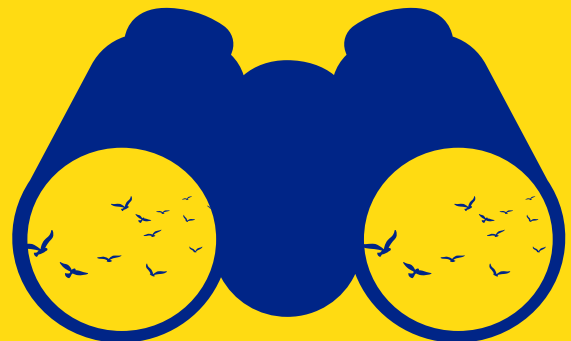
NUMBER OF BIRD SPECIES OBSERVED AT EACH DREDGED MATERIAL MANAGEMENT PROGRAM SITE IN 2024:

Hart-Miller Island: **208**

Masonville Cove: **208**

Poplar Island: **198**

Cox Creek: **183**



Climate and Energy

Maryland's 2022 Climate Solutions Now Act (CSNA) aims to reduce greenhouse emissions by 60% by 2031 and to achieve net zero emissions by 2045. **Implementation of new climate policies is anticipated to generate up to \$1.2 billion in public health benefits, \$2.5 billion in increased personal income, and a net gain of 27,400 jobs in Maryland between now and 2031.**

To support the Governor's clean energy and emissions reductions vision, and to meet CSNA standards, MPA has partnered with a range of stakeholders on efforts to improve air quality, increase electrification, and strengthen the Port's climate resiliency.



Historic Climate Grant Funding Awarded to the Port

In 2024, MPA received **\$147 million of grant funding** through the Environmental Protection Agency (EPA) Clean Ports Program to support clean jobs and support Port zero emissions goals. These funds have been met with an investment of **over \$36 million** from other partners and the State, creating **a total \$182 million to advance climate planning and infrastructure and equipment electrification**. This also includes a workforce impact analysis and career development initiatives to support job equity in the transition to cleaner technologies.

On October 29, 2024 the Port was honored with a visit by Governor Wes Moore and President Joe Biden, who announced MPA's Clean Ports award

and addressed the nation on Inflation Reduction Act (IRA) investments in port infrastructure and the economy. Nationwide, the Clean Ports Program awarded **over \$4.3 billion** to projects designed to accelerate air pollutant and greenhouse gas emissions reductions, promote energy resiliency, and reduce related impacts to adjacent neighborhoods and communities.

Maryland is also benefiting from a **\$249 million Climate Pollution Reduction Grant** awarded to the Clean Corridor Coalition, a partnership with New Jersey, Connecticut, and Delaware that will deploy electric vehicle charging infrastructure for commercial vehicles along the I-95 corridor.



Driving Towards Net-Zero

As part of its commitment to be the first Maryland state agency to be fully net-zero, MPA is working to reduce its scope 1, 2, and 3 greenhouse gas (GHG) emissions. The Port has developed a voluntary emission reduction program and invested in clean equipment and practices in line with EPA's Clean Port Initiative.

In accordance with Maryland's Climate Pollution Reduction Plan, the Port is evaluating and reducing criteria air pollutants (CAP) and GHG emissions attributable to transportation projects as part of the Maryland Consolidated TransPortation Program. Examples of MPA's emission reduction strategy programs can be found in the table below.

MPA's Emission Reduction Strategy Programs

Program	Emission Targets	Details
Clean Diesel Program	CAP and GHG	MPA's clean diesel grant program "Dollars for Drays" provides truck operators funding for more efficient trucks. As of 2025, 317 trucks have been replaced.
Energy Audits	GHG	In 2024, MPA and partner energy service companies completed the first phase of Energy Audits and Net Zero Assessments on various buildings throughout 3 terminal properties.
Electrification	CAP and GHG	Approved funding to replace two terminal tractors and two diesel forklifts with one electric bucket truck and one electric forklift funded through the Volkswagen Diesel Emissions Environmental Mitigation Trust Fund.
Electrification: Research	CAP and GHG	MPA was awarded funding from the Federal Highway Administration's Reduction of Truck Emissions at Port Facilities grant to research and promote adoption of electric Power Take Off devices on car carrier trucks.
Electrification: Vehicles	CAP and GHG	Added an electric light duty vehicle at Cox Creek and planned to procure a zero-emissions street sweeper truck to replace MPA's existing diesel-powered street sweeper truck, which will reduce emissions by about 8.4 tons of CO ₂ .
Electrification: LED Lighting	GHG	Installed more efficient interior and exterior LED lighting throughout the terminal and WTC areas.
Renewable Energy: Microgrids	CAP and GHG	Worked to identify funding for design of a microgrid at DMT, which would provide enhanced resiliency and increased flexibility and reliability during extreme weather events and high peak energy use.
Renewable Energy: Solar	GHG	MPA is actively pursuing solar arrays at various terminals by maximizing reduced operational spaces, investigating the structural capacity of the various large rooftop areas on warehouses, and replacing previous panels installed at South Locust Point.
Alternative Energy Purchasing	GHG	Initiated efforts to identify opportunities to increase the Port's alternative energy sources.
Sequestration	GHG	Sought funding to maintain the Port's longstanding tree planting efforts. Continuing efforts to promote coastal wetland habitat restoration projects.

Strategies to Increase Resilience

MPA has prepared a “**Climate Implementation Plan**” that outlines resilience strategies and opportunities including decarbonization efforts across the agency to meet its commitment for net zero emissions by 2045. The plan will be finalized in 2025 and has been complemented by a range of efforts to integrate solar energy and electric vehicles and lifts into Port operations.

Building a Resilient Roadmap to the Future

MPA is undertaking an extensive Coastal Resiliency and Climate Change Vulnerability Assessment for all MPA terminals and Dredged Material Management Program sites, their associated land bases, and other mitigation sites. This effort will inventory, model, and analyze these facilities for a risk assessment highlighting various levels of sea level rise and storm surge.

Poplar Island climate and carbon sequestration research seeks to maximize resiliency and habitat restoration and develop lessons learned for other beneficial use projects in Maryland, across the country, and around the globe. Multiple studies have been completed or are underway assessing the relationships between wetland restoration using dredged material and nutrient cycles, GHGs, and long-term resiliency in the face of sea level rise.

Partnering to Reduce Emissions

MPA partner Wallenius Wilhelmsen, a market leader in Ro/Ro shipping and vehicle logistics, chose Baltimore for deployment of the first electric rail car mover in the U.S. maritime industry. The electric rail car mover is designed to handle the repositioning of rail cars carrying high and heavy cargo, such as construction equipment, agricultural machinery, and other oversized units. By replacing traditional diesel-powered equipment, the zero-emissions electric mover reduces noise pollution and lowers overall operational costs. This aligns with our commitment to decarbonizing logistics while ensuring the safe handling of complex cargo.


Metrics Roundup



13.87 tons
OF NITROGEN OXIDE EMISSIONS



182 tons
OF CARBON EMISSIONS



16,000 gallons
OF FUEL

Reduced each year through the use of Wallenius
Willhelmsen's electric rail car mover, which is an
important tool for cargo handling



\$145 M
CLEAN PORTS IMPLEMENTATION
GRANT AWARD



\$1.9 M
CLEAN PORTS PLANNING
GRANT AWARD



\$36 M
GRANTS AND PARTNER
CONTRIBUTIONS TO CLIMATE
RESILIENCE INITIATIVES

For a total \$182 million to advance climate planning and
infrastructure and equipment electrification

Community Building

MPA is committed to investing in its neighboring communities and has established a range of engagement, education, recreational, and workforce development programs. These programs reflect the needs and interests of MPA's constituents and drive outcomes that benefit all Marylanders.



Collaborating with Communities

Each year MPA's longstanding community advisory committees and engagement programs provide opportunities for the Port to share information with and learn the concerns of community members, business leaders, nonprofit organizations, and government officials.

Notable new initiatives for 2024 include the convening of the Mid-Bay Community Stakeholder Group, a standing group of committed Eastern Shore community representatives, and the Mid-Bay Community Conversations initiative. These efforts help facilitate information exchange, understanding, and relationship-building.

To improve understanding of what the Port does and how it operates, MPA started a **"Working at the Port" video series**, which highlights daily activities of various Port employees.

MPA is also **strengthening the capacity of "Friends of" volunteer stewardship groups** to further outreach and engagement efforts. Through site visits and networking, the Friends of Masonville Cove and Hart-Miller Island are learning how established groups find and retain volunteers, manage operations, prioritize projects, and extend their impact to surrounding communities.



Expanding Engagement with Underserved Communities



MPA hosted its first “**Doing Business with MDOT**” outreach event that focused on minority and veteran-owned enterprises and other certified small businesses. Between exhibitors and registrants, there were 100 people in attendance.



Outreach to the Spanish speaking community expanded at Masonville Cove, with additional bilingual programming and signage, increased materials in Spanish (including a bilingual nature bookshelf for children and families), and outreach at events such as **Latino Conservation Day** and other school and community programs.



MPA’s engagement with communities on Maryland’s Eastern Shore expanded in 2024 through events such as the **Juneteenth Celebration in the City of Cambridge**, and the **Nause-Waiwash band of Indians 32nd Native American Festival** in Vienna, MD.



In an effort to better inform projects in planning and design, **Portview 2.0** was updated to include environmental justice (EJ) data. This is the first time this information is available to all Portview users, increasing the visibility of these topics and facilitating consideration of climate resilience and EJ as factors when evaluating options.





Connecting Communities with Nature

The **Swan Creek Nature Trail**, partially funded by a \$214,250 U.S. Department of Transportation grant, is a planned 2-mile loop in the Cox Creek Forest Conservation Easement Area that will include boardwalks, outdoor classrooms, and informational signage. Design is complete and construction begins soon with the goal of opening the trail in late 2026.

Masonville Cove Urban Wildlife Refuge Partnership, created to improve community access to the waterfront, **received over \$500,000 in 2024** adding to the \$5.3million+ in grant and donation funding since 2006. These funds helped facilitate 6,058 visits from students and community members in the past year.

New opportunities provided by National Fish and Wildlife Foundation's Chesapeake WILD funding allowed 60 Baltimore City youth and 24 Girl Scouts to engage in new hands-on outdoor education programming at Hart-Miller Island and Cox Creek DMCF.

To ensure more opportunities for first-time and non-affiliated birders, MPA began using a lottery for birding event registration across all DMCFs. As a result, in 2024, **69% of participants at HMI birding events** were first-time attendees, and **18% of Cox Creek DMCF birders** were new to MPA birding programs.

The Masonville Cove Connector is being designed and developed in close collaboration with community groups to meet their needs. This shared use path will provide safe and equitable access to Masonville Cove for walking and biking and link to over 20 miles of regional trails.

Each year, Hart-Miller Island State Park opens seasonally to the public via boat access. **Over 37,700 people visited in 2024** to fish, camp, boat, swim, bike, hike, and picnic.



Community Partnerships to Drive Impact

Through the Baltimore Port Alliance, MPA partners with and supports communities through the donation and reuse of Port-related materials. BPA members like MPA, C. Steinweg, BWC Terminals, and Ports America Chesapeake partner with communities in a variety of community-driven upcycling efforts such as:

- Lumber was donated to support projects at Turner Station, VQ Adams Memorial Garden, the Upton Planning Committee's Sacred Kolors Garden, People's Association of Oliver Community, Temple Church & Ministries, and the Stoney Beach community.
- Donated steel frames were reused by the Seton Hill Association, At The House, Inc., and the Greater Mount Holly Community Development Corporation.
- Public spaces were enhanced with donated wharf logs, which also prevented plastics and other debris from entering landfills.
- Containers and plastic totes were donated to the Upton Planning Committee's Sacred Kolors Garden.



Seeding the Next Generation

A new partnership with Boy Scouts of America is increasing opportunities for scouts to earn merit badges and becoming certified merit badge counselors.

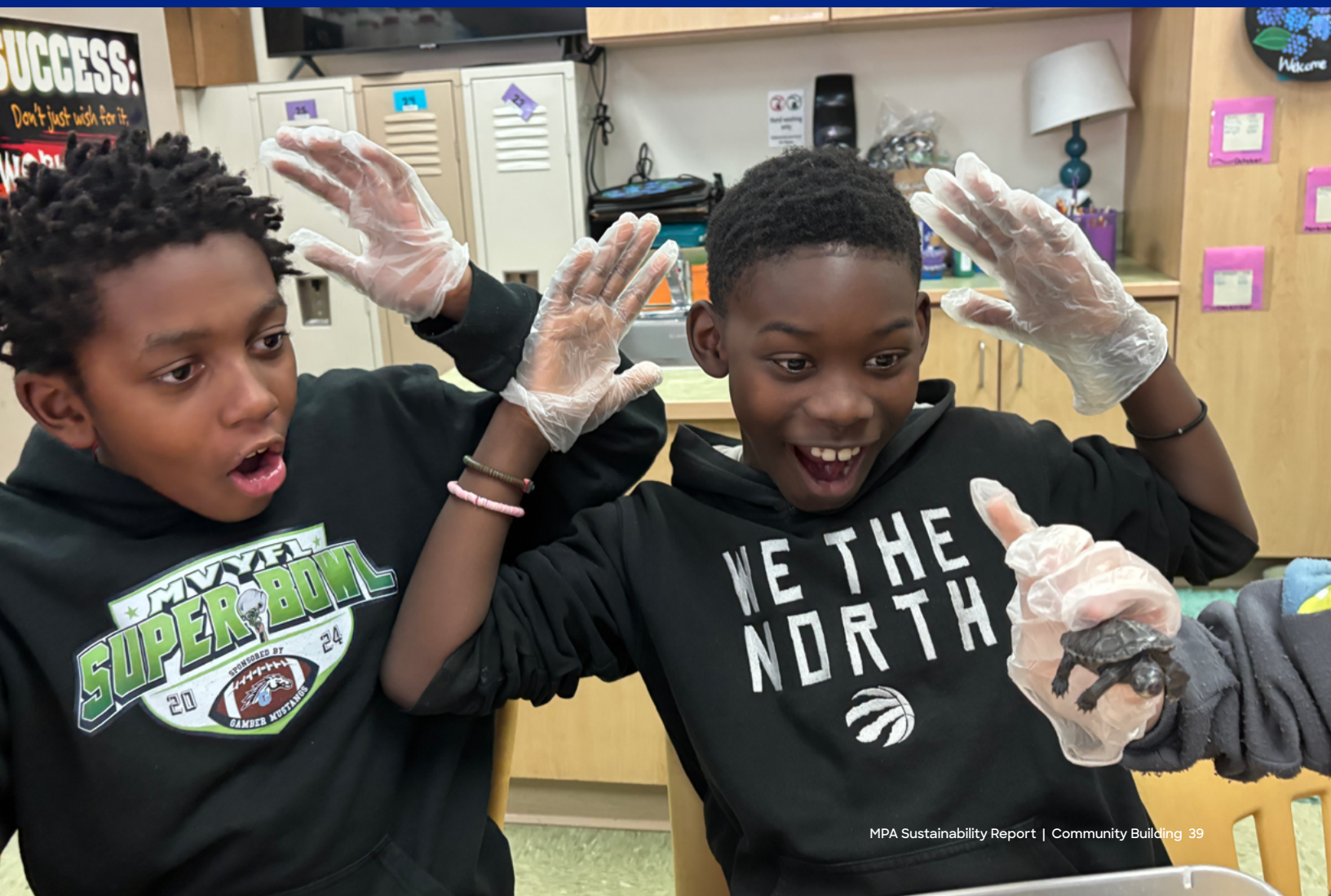
In 2024, at Masonville Cove, a boy scout had the opportunity to complete his Eagle Scout project by installing a storage closet for fishing gear near the pier, benches with backs, and bird and bat boxes to increase habitat.

The Geo Girls BioBlitz at Masonville Cove included fishing, kayaking, and species identification and data collection.

Responding to demand, Youth Birding Week expanded to two weeks to accommodate a wider age range, resulting in 27 young birders participating in hands-on activities.

Through the **Terrapin Education and Research Partnership (TERP)**, Maryland students give diamondback terrapin hatchlings from Poplar Island a head start in life. In return, they receive a head start in Bay conservation education. This MPA-sponsored program works with schools to place about 200 hatchlings per year in classrooms from fall through spring, where students care for them, study their behavior and natural history, and record their growth. The terrapins are then returned to Poplar Island at the end of the school year.

Finally, MPA also helped organize and coordinate a range of shoreline cleanups with local community colleges, and stream studies with local high school students.



Metrics Roundup

More than
21,000
interactions
at nearly
800
MPA education and
outreach efforts in 2024

14,000 
students
engaged

596
classrooms
engaged

~200
HATCHLINGS IN
THE TERP PROGRAM

20th

ANNIVERSARY
OF THE TERP PROGRAM

Digital Roundup

MPA has been expanding its digital presence to reach more community members and make information easily accessible.

SOCIAL MEDIA FOLLOWERS:

47,149

SOCIAL MEDIA IMPRESSIONS:

11,509,090

POST SHARES:

24,229

POST REACTIONS & LIKES:

161,970

NUMBER OF VIDEO VIEWS:

34

Awards

Highlights of top awards MPA received in 2024 include:



MPA Engineering was honored with the **Maryland Quality Initiative Conference Planning Award** for successfully creating the Water System Renewal Plan at Dundalk Marine Terminal to reduce water waste and prioritize replacing aging water systems.



For the 15th consecutive year, the Port received a top U.S. Coast Guard security assessment for the six state-owned, public marine terminals that are managed by the MPA.



On Urban Wildlife Conservation Day in September, WildSTEM Internship partners and students received a **Governor's Citation** to recognize their experience and contributions.



MPA received a **Maryland Quality Initiative Municipal Award** for the Air Handler Unit Rehabilitation at the WTC. This project improved energy efficiency by reducing air leakage, remediating corrosion, and replacing outdated components.



Glossary of Acronyms

AHU	Air Handler Unit	MBE	Minority Business Enterprise
BMP	Best Management Practice	mcy	million cubic yards
BPA	Baltimore Port Alliance	MDOT	Maryland Department of Transportation
BU	Beneficial Use	MPA	Maryland Port Administration
CAP	Criteria Air Pollutants	MS4	Municipal Separate Storm Sewer
CSNA	Climate Solutions Now Act	Ro/Ro	Roll on/Roll off
DMCF	Dredged Material Containment Facility	STAR	Sediment Technology and Reuse
EJ	Environmental Justice	TERP	Terrapin Education and Research Partnership
GHG	Greenhouse Gas	USACE	U.S. Army Corps of Engineers
HMI	Hart-Miller Island	WTC	World Trade Center
IR	Innovative Reuse		



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