

Port of Baltimore Multi-Agency Workgroup Air Quality and Stakeholder Achievements 2015 - 2020



Maryland
Department of
the Environment

Multi-Agency Workgroup: In 2015, the Air Administration of the Maryland Department of the Environment (**MDE**), the Maryland Port Administration (**MDOT MPA**), and the Secretary's Office of the Maryland Department of Transportation (**MDOT**) signed the **Voluntary Air Agreement** creating a **Workgroup** charged with identifying air quality improvement projects at the Port of Baltimore and pursuing funding programs to support project implementation.

During the five years since the Workgroup was established, it has served to build productive relationships and opened new channels for dialogue and collaboration among the agency representatives. Their commitment to meet on a monthly basis and share ideas and strategies to fulfill the Voluntary Air Agreement has resulted in improved planning to meet mutual goals. The dialogue has also created an enhanced understanding of the operations and challenges the agencies collectively face to implement strategies to improve air quality and increase energy efficiency. The programs and projects discussed are beyond regulated, compliance-driven projects, and instead emphasize voluntary actions. The activities of the Workgroup have also resulted in a more focused and coordinated approach in stakeholder engagement, particularly with underserved communities.

Air Quality Improvements: Since 2015, the agencies have secured over \$8 million in funding to **upgrade existing diesel equipment and vehicles and buy new, cleaner-burning ones at the Port of Baltimore**. Funding sources for the emission reduction projects include the **Volkswagen**

Mitigation Fund and **USEPA Air Grants**, with additional support from **private sector** matching funds. The Workgroup facilitated NOx-reducing projects including replacing older dray trucks, cargo handling equipment and harbor tug engines.

Stakeholder Focus: The Workgroup has increased the level of input from Port Stakeholders by including the private sector, small businesses and communities in the discussions and project design. **Canton Railroad, Ports America Chesapeake, BalTerm, Wallenius Wilhelmsen Solutions, T. Parker Host, the Baltimore Compost Collective, and Marshall's Trash Removal** have, or will be receiving funding for air quality improvement projects.

The Workgroup has strengthened ties to **neighborhoods, faith-based organizations, and NGOs** by inviting them on tours of the terminals, attending community meetings, having them participate in Workgroup meetings, and supporting residential clean up initiatives. The Workgroup has also teamed with **the Maryland Motor Truck Association to promote the Idle Free MD initiative**.



Maryland Inter-Agency Air Quality Voluntary Agreement Accomplishments

“The purpose of this Voluntary Agreement is to document and confirm the Parties’ ongoing commitment to pursue mutually agreeable and cooperative efforts that will sustain and advance the economic health of the Port of Baltimore and protect the environment of the State of Maryland.”

Project Implementation

Since the Port’s Diesel Equipment Upgrade Program was launched in 2008 the Port has received \$14 million in state and federal funds for upgrading and purchasing equipment and vehicles. Beginning in 2015, the Workgroup strengthened existing efforts by pursuing several emissions reduction projects and grant-supported projects, including:

Volkswagen Mitigation Trust Fund – MDE is processing applications for NOx-reducing projects at the Port and in surrounding communities from Canton Railroad, Ports America Chesapeake, T. Parker Host, the Baltimore Compost Collective, and Marshall’s Trash Removal.

FY 2018 DERA Grant – MDOT MPA received \$2.45 million to replace dray trucks that haul cargo to and from the port, cargo handling equipment and replace engines in the Spirit of Baltimore cruise ship. MDE received a DERA grant for \$276,383 to continue supporting the MPA dray truck program.

FY 2019 DERA Grant – MDOT MPA received \$1.8 million to continue its dray truck and cargo handling equipment replacement efforts.

Port Air Quality – The Workgroup studied how the Port’s emissions reduction activities helped Maryland’s State Implementation Plan comply with federal air quality standards.

OWLETS 2 – Analysis has continued on the data collected during the MDE/MDOT MPA partnership’s second Ozone Water-Land Environmental Transitions Study to measure ozone formation and breakdown over land and water areas, including maritime traffic and land-based potential sources.

MDOT MPA Safety, Environment and Risk Management Sustainability Strategy 2020–2023

Development of this strategy includes a goal to Identify and Implement Technologies and Practices that Reduce Greenhouse Gas and Diesel Emissions to Near Zero.”



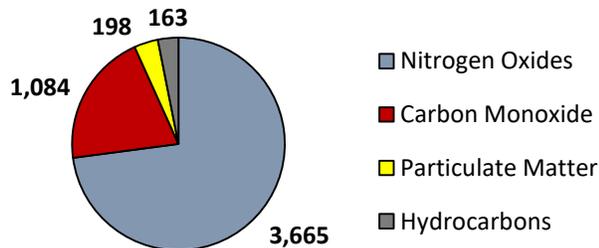


Emissions Reduction and Energy Conservation Projects

In addition to continuing to research activities, technologies, and equipment that might potentially reduce harmful air emissions and/or conserve energy, the Workgroup prioritized those that could result in improved air quality for communities near Port operations by focusing on the following:

- Automatic idle reduction technology for locomotives and port equipment
- Cargo handling equipment (forklifts, yard tractors, top loaders, and cranes) replacements and engine repowers
- Dray truck replacement – providing partial purchase price to replace older polluting trucks
- Harbor tugs – identifying older tugs to receive new cleaner engines

Over 5,100 Tons of Pollutants Reduced Since 2008 From Port's Diesel Equipment Replacement Program



Air Pollutant Sources and Air Pollution Reduction Technologies

Using air emissions inventories developed by MDOT MPA, the Workgroup continued to identify the technologies and activities to best address Port-related sources of air emissions. MDOT MPA engaged a Fellow from the Environmental Defense Fund's (EDF) Climate Corps Program each of the last five years to research air quality and energy efficiency related topics. These include evaluating shore power and vessel exhaust scrubber system (ESS) technologies, achieving zero and near-zero emissions strategies, the feasibility of using fuel cells for Port operations, the viability of fleet electrification at MDOT MPA, and the potential carbon sequestration ability of dredged material on Hart Miller Island's restored wetlands.

Identifying and Targeting Potential Funding Sources

The Workgroup continued to identify potential funding sources for projects. Its list currently includes:

- EPA Clean Diesel Program (DERA)
- EPA Environmental Education Local Grants Program
- EPA Environmental Justice Small Grants Program
- EPA Community-Scale Air Toxics Ambient Monitoring Grants Program
- US Department of Transportation Better Utilizing Investments to Leverage Development Discretionary Grant Program
- Federal Highway Administration Congestion Mitigation and Air Quality (CMAQ) Improvement Program
- US Maritime Administration Grant and Assistance Programs
- US Department of Energy Grant Programs
- MDE Environmental Penalty Settlements
- Maryland Energy Administration
- Maryland Clean Energy Center

- Federal and State Volkswagen Diesel Vehicle Settlements
- Climate Access Fund



Activities to Inform, Engage and Invest in Stakeholders

MDOT MPA and MDE continue to place a high priority on increasing stakeholder engagement. The Workgroup continues to focus on underserved areas in its outreach efforts.

Community Engagement

- Attending community group meetings to provide presentations on air quality and the agencies' efforts to reduce air emissions.
- Developing relationships with representatives of faith-based and other organizations in West Baltimore, Brooklyn, Dundalk, and additional areas near the Port.
- Providing and participating in tours sponsored by the Baltimore Port Alliance for community members to give them a first-hand look at Port operations.

- Providing and participating in tours for EPA regional and national staff, Chesapeake Bay Foundation, community members and private terminal operators to familiarize them with successful grant-funded Port projects and discuss future possibilities.
- Teaming with the Maryland Motor Truck Association to promote the Idle Free MD campaign which discourages unnecessary engine idling that contributes to harmful air emissions.
- Providing outreach materials to truck drivers serving Seagirt Terminal explaining the importance of idle reduction.
- Including private Port tenants and others in the Workgroup's monthly meetings to exchange information and ideas.
- Creating and marketing a Diesel Equipment Upgrade Program website and producing a video on cargo handling equipment replacements.
- Presenting Port environmental accomplishments and plans to outside groups such as the Maryland Port Commission, Maryland Department of Transportation's environmental justice workshop, and MDE's Air Quality Control Advisory Council.
- Publishing accomplishments and events in the GreenPort newsletter, MDE Heron, Port of Baltimore magazine, and in social media.
- Participating in tree plantings with Blue Water Baltimore along Broening Highway.

Community Grants

- Assisting Marshall's Trash Removal in Turner Station to apply for a Volkswagen Mitigation Fund grant to replace an older trash truck.
- Working with Curtis Bay/Brooklyn residents to help apply for a new truck for the Baltimore Compost Collective.
- Meeting with Baltimore City Department of Public Works to consider replacing older engines for Inner Harbor trash skimmers and water taxis.
- Investigating the Climate Access Fund for local solar energy projects.

- Helping the Greater Baybrook Alliance, Safe Alternative Foundation for Education (SAFE), and Maryland Association for Environmental and Outdoor Education apply for EPA Environmental Education grants.



Maryland's Air Quality

Maryland's air quality has dramatically improved in the last 20 years—see the state's Clean Air Progress Reports online at <https://mde.maryland.gov/programs/Air/Pages/AirQualityReports.aspx>. Many challenges had to be overcome to protect public health and the environment from the effects of ground level ozone. Improvements in fuel efficiency, cleaner fuels and diesel engines, and efforts by the private sector to lower emissions at ports and airports greatly reduced NOx emissions. Maryland's levels of fine particles are now well below the daily and annual standards. SO₂ pollution has decreased in the past 10 years, driven by the Healthy Air Act and switching from coal to natural gas by power plants and large industries, and by regulations requiring low sulfur fuels for heavy engines and home heating.

The Clean Cars Act of 2017 dramatically reduced NOx and greenhouse gas emissions by requiring vehicles purchased in Maryland to be the lowest emitting vehicles allowed by law and it played a major role in helping the State to reduce ozone and

fine particulates and meet climate change goals. That law and the Greenhouse Gas Emission Reduction Act of 2016 show Maryland is working on initiatives to reduce climate change pollutants. New opportunities for reductions include minimizing transported air pollution effects on Maryland and continuing to support federal and regional policies that enable clean air progress.

Updated Agreement

To build on the progress of the last five years, the Agreement has been updated to include:

- The Maryland Energy Administration as a participating agency. This brings greater focus and additional resources to address energy efficiency and clean energy.
- Recognition of the importance of climate change and the need to work cooperatively to address this threat.
- Greater focus on stakeholder engagement with underserved and overburdened communities.
- Acknowledgement of the co-benefits from implementing air quality projects for both air quality and water quality improvements.

Conclusion

The Agreement's goal of pursuing cooperative efforts to sustain and advance the economic health of the Port of Baltimore while protecting the environment and public health is being achieved through the ongoing efforts of the Workgroup.

