



## Environmental Stewardship

Ensure that the delivery of the State's transportation infrastructure program conserves and enhances Maryland's natural, historic and cultural resources

### Objectives:

- Limit the impacts of transportation on Maryland's natural environment through impact avoidance, minimization and mitigation.
- Employ resource protection and conservation practices in project development, construction, operations, and maintenance of transportation assets.
- Implement transportation initiatives to mitigate the impacts of climate change and improve air quality.
- Support broader efforts to improve the health of the Chesapeake Bay, protect wildlife, conserve energy, and address the impacts of climate change.



Retrofitting and replacing MTA buses with hybrid or clean diesel technologies helps improve Maryland's air quality

### Accomplishments and Ongoing Activities:

- MTA received a \$40 million federal grant to replace Baltimore's 65-year old Kirk Division Bus Facility with two sustainable 'green' buildings that will help reduce noise and vehicle emissions in the neighborhoods near Kirk Division. In addition, the now fully funded project will reduce operating costs, create local construction jobs in Northeast Baltimore, and help more than 350 local transit employees maintain a growing fleet of new, energy-efficient buses.
- Working with the U.S. Army Corps of Engineers, MPA pioneered beneficial uses of dredged material for restoring eroding islands, and developing upland and wetland habitats in the Chesapeake Bay.
- SHA and MDTA are implementing new stormwater practices in response to the Chesapeake Bay Total Maximum Daily Load (TMDL) requirements. This includes treating stormwater runoff by installing sand filters, infiltration berms and bioretention landscaping, restoring streams and planting trees. SHA's program is designed to treat approximately 6,700 acres of currently untreated paving and will remove nearly 172,000 tons of sediment, 4,700 pounds of nitrogen and 1,089 pounds of phosphorus from the Chesapeake Bay watershed annually.

The Maryland Port Administration is pioneering beneficial uses of dredged material to restore eroded islands and to create upland and wetland habitats in the Chesapeake Bay

- SHA planted nearly 120,000 trees on 480 acres of State property in Anne Arundel, Baltimore, Carroll, Charles, Frederick, Harford, Howard, Montgomery and Prince George's counties.
- MDOT is retrofitting and replacing aging fleet vehicles to reduce emissions and improve air quality. This includes replacing MTA buses with hybrid or clean diesel vehicles; purchasing diesel MARC Train locomotives that meet stringent new EPA requirements for all types of pollutants; replacing MPA dray trucks with newer equipment that will use ultra low sulfur-bio diesel fuel; and retrofitting SHA dump trucks used for maintenance activities with special filters designed to reduce diesel fuel emissions.
- MDOT has encouraged use of electric vehicles by the public by installing electric vehicle chargers at various State-owned locations, making refueling more convenient.
- Over the next five years, MVA will reduce paper forms and increase the use of alternative service delivery methods, as well as provide virtual and wireless availability for driver and vehicle services and products.



## Goal: Environmental Stewardship

- Make optimal use of energy resources in accordance with State goals for petroleum use reduction, GHG emissions reduction, energy conservation and cost reduction, and support for renewable energy.
- Monitor developments in alternative vehicle fuel technologies and evaluate for their application to transportation fleets.
- Expand the use of alternative fuels in the State transportation fleet and service vehicles so that all fleets deploy the most fuel-efficient, clean, and cost-effective vehicles appropriate to their intended use.
- Implement policies to ensure that new and renovated facilities are designed and constructed using optimal environmental standards.
- Continue to explore the feasibility of integrating renewable energy generation technologies into the transportation system.
- Institutionalize the consideration of future sea levels and storm conditions in prioritizing infrastructure investments in coastal areas.
- Enhance preparedness and planning efforts to protect human health, safety and welfare in light of changing climate conditions.
- Continue the development and implementation of modal and department-wide Environmental Management Systems (EMS). EMS is a proactive, coordinated systems approach to environmental management; it targets resource protection and risk management through conservation, stewardship and compliance efforts as they pertain to the lifecycle of transportation assets and their environmental context.
- Continue to monitor and test vehicles for emissions compliance through the State's Vehicle Emissions Inspection Program.
- Diligently pursue the water quality improvement goals of the Chesapeake Bay Watershed Implementation Plan through a broad set of pollution control strategies.
- Continue to evolve practices to avoid and minimize impacts of the transportation system to natural and cultural resources and include enhancement and preservation wherever feasible, including for example tree planting and re-forestation measures.
- Maximize opportunities to incorporate environmental benefits into all transportation projects to ensure compliance with state and federal requirements.



Electric vehicle chargers at transit stations



Goal: Environmental Stewardship

Lead Agency	Performance Measure
SHA	Percent of compliance on erosion and sediment control ratings
SHA	Total fuel usage of the light fleet
MPA	Acres of wetlands or wildlife habitat created, restored, or improved since 2000
MVA	Compliance rate and number of vehicles tested for Vehicle Emissions Inspection Program (VEIP) versus customer wait time
MDOT/SHA/MTA	Travel Demand Management; Transportation Emission Reduction Measures (TERMs)
MDOT	Transportation-related emissions by region
MDOT	Transportation-related greenhouse gas emissions



MDOT's modal agencies are implementing a broad set of pollution control strategies to ensure the water quality improvement goals of the Chesapeake Bay Watershed Implementation Plan are met