

Green no longer just means money

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Green has, over the last few years, taken on a new meaning. Today when someone says the word green they are usually not talking about cash carried in a wallet, but rather the environment. The Academy Award winning film, *An Inconvenient Truth*, helped spur on the movement to protect the environment and acknowledge global warming. Savvy corporations like General Electric and Wal-Mart quickly jumped on the green wagon and are seeing the results in the other kind of green.

For some businesses, going green takes a bit more effort and is being accomplished in small increments. Like the popular song of the seventies *It's Not Easy Being Green* sung by a Muppet named Kermit, terminals and other maritime industries are asking how they can change to better the environment while maintaining operations and reducing costs.

Actually, it's not that hard being green, but it can be hard funding green projects. Several years ago, the Maryland Port Administration (MPA) began modifying and in some cases completely changing its concept of operations in relation to the environment. The first step was a new recycling effort and the use of cleaner chemicals and fuels. Ultra low-sulfur diesel with biodiesel from vegetable oil is being used in all its power vehicles, equipment, back up power generators, engine driven fire protection system pumps and cranes. Standard diesel fuels with high sulfur content releases the particulates that one can often be seen emitting from the big trucks on the road. By using bio-diesel fuels, which are derived from vegetable oils, a cleaner burning alternative is provided.



DOC installation.



Poplar Island in progress.

Green initiatives

Hybrid vehicles are beginning to replace standard vehicles at MPA terminals. The hybrid models increase fuel economy and in some cases can as much as double fuel economy ratings compared to their gasoline powered counterparts. This results in less fuel consumption and lower maintenance costs. A 28 per cent fuel savings is projected by using the hybrids. The feasibility of using electric vehicles for daily on-site activities is also being seriously considered. The use of synthetic motor oils, also on the table for consideration, would reduce the number of oil changes thereby reducing maintenance costs and wear on machinery.

In addition to the hybrids, light duty Flex-Fuel vehicles will soon run on E-85 as opposed to unleaded gasoline. Other green additions at the MPA include the removal of underground tanks and more rubber tire gantry cranes and fleet vehicles using diesel oxidation catalysts to reduce diesel emissions.

The Maryland Port Administration (MPA) which oversees the public terminals at the Port of Baltimore has partnered with the Maryland Department of the Environment on many of the above initiatives. Partnerships are essential to ensure a greener maritime environment. In May 2008, the MPA received funding from the Environmental Protection Agency for projects to be administered by Maryland Environmental Service, an environmental support entity. One grant is for assessment of emissions reduction technology that could be applied to trucks working in and around the port such as eliminating any idling of vehicles on Baltimore's public terminals. The remaining funding is being used to assess a variety of emissions reduction technologies that could enable cleaner ways to move cargo.

Dredge material sites

The remaining amount of grant dollars will be used for installation of diesel particulate filters on 14 pieces of heavy construction equipment at a number of Maryland dredge material sites. These sites, including Poplar and Hart-Miller islands, are known nationally and internationally as environmental and economic successes.

In order to make the Chesapeake Bay Channel and the Port of Baltimore economically viable, the process of dredging has to be an ongoing procedure. In the early 80's the Hart and Miller islands project was set into place. Today the two islands that had



Dundalk Marine Terminal.



One of Poplar Island's denizens.

eroded away to just a few acres are now restored and joined together to create both a natural wildlife habitat on the upper part of the island and a recreational area for boaters, picnickers and swimmers on another section of the island.

The Poplar Island project has salvaged the remaining four acres of a once thriving island and restored it to its natural 1,140 acres. Once completed, all of Poplar Island will be dedicated as a wildlife preserve for migrating birds, Maryland Terrapins as well as insects and other avian species indigenous to the Bay area. This restoration has created an impact on surrounding islands and has helped reduce the erosion of the mainland shoreline.

Projects of this nature could not have been accomplished without the partnership of surrounding communities and other important stakeholders. In April 2008, Maryland Governor Martin O'Malley broke ground on a major environmental project in one of the most contaminated areas of Baltimore Harbor. Local residents and community leaders were invited to be part of the planning for the Masonville project, a new US\$153 million dredged material placement facility located on the Middle Branch of the Patapsco River as an outcome of a community driven planning process. During the planning process, residents, resource agencies and the Maryland Port Administration worked to ensure that all stakeholders benefited and in the process improved the environment. This process has been seen as a national model for engaging communities and stakeholders.

Today, construction is currently underway for the building of the Masonville Cove Environmental Education Center. The facility will allow the public to learn about storm water management, the Chesapeake Bay and the importance of recycling. In addition, a local wildlife sanctuary and biking and walking trails will be developed, as asked for by the local communities. One long-term plan at the Masonville site is the possibility of developing the site into a marine terminal to accommodate the expanding Port of Baltimore's automotive business. Currently, more than 40,000 tonnes of trash and debris

have been cleared to make way for this project. The cleanup has also included the removal of 200,000 gallons of petro-tainted water, 6,500 tonnes of timber, 122 tonnes of concrete rubble and 2,000 pounds of PBC-containing electrical equipment.

Sometimes, greening projects that affect the Port of Baltimore are not necessarily found around the terminals or in the Chesapeake Bay. Space on terminals around the world is precious. The MPA is always willing to work with the needs of its customers to help their business thrive. Since terminal land is within environmentally sensitive areas of the Chesapeake Bay, the MPA prepared the Institutional Storm Water Management Plan to address issues of construction on public terminals while creating green spaces off-site in return. Before implementation could begin, the plan had to be approved by the Critical Area Commission and the Maryland Department of the Environment.

Working with the City of Baltimore, some local schools will be the happy recipients of more green spaces on their school's property. The city supplies the space and the MPA funds the work and supplies the contractors. Asphalt is ripped up and replaced by grass, plants, trees and gardens. Not only do the new spaces provide safer and cleaner areas for children to play, the children learn new lessons in environmental stewardship. As this project progresses, the MPA will work with city officials to establish environmental programmes to ensure these new 'green schools' are maintained.

As the agency that manages the public terminals at the Port of Baltimore, the Maryland Port Administration is also supporting a growing environmental focus among the broader port community. As a member of the Baltimore Port Alliance, an umbrella group of maritime related businesses, the MPA participates in the BPA's Environmental Committee helping to make sure its green message reaches the appropriate audience, namely regulators and legislators. All of these efforts by the MPA will ensure a greater environmental commitment for years to come.

ABOUT THE AUTHOR

J.B. Hanson is a Public Information Officer for the Maryland Port Administration (MPA). He came from the private sector to the Maryland government in 1998 and has been with the MPA since July 2004. He has been in the field of media relations for over 30 years.

ABOUT THE ORGANISATION

Maryland's **Port of Baltimore** is ranked 12th for value of cargo (nationally) and ranked 13th for overall tonnage (nationally). The Port celebrated its 300th anniversary of waterborne commerce in 2006. The Maryland Port Administration, who celebrated its 50th year in 2006 as well, is the facilitator for the public sector terminals and falls within the auspices of the Maryland Department of Transportation.

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