



# The Schoolyard Greening Program

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Students at Baltimore's Franklin Square Elementary School have a new butterfly garden where a parking lot once stood.

At Barclay Elementary/Middle School, students enjoy an outdoor reading garden and grass playing field lined with healthy young trees that replaced old playground blacktop.

Students at Windsor Hills Elementary/Middle School will soon plant nearly 15,000 square feet of new garden space in an area that was once deteriorated asphalt.

Projects like these, which turn hard schoolyard surfaces into softer green ones, have become a winning enterprise for both Baltimore public schools and the Maryland Port Administration.

## A Balance of Stewardship

The Maryland Port Administration developed its schoolyard greening program as a creative way to offset environmental impacts at the Port of Baltimore and bring long-term benefits to city school children.

The Port of Baltimore is an intense commercial hub, with terminals that include many buildings, roads, and parking areas. Any collection of hard surfaces like these washes a significant amount of stormwater into local waterways, along with pollutants it picks up on the way.

Regulations from the Maryland Department of the Environment and the Critical Areas Commission require the careful management of stormwater runoff from industry. Corrective actions often take place on site, but space limitations make it almost impossible to achieve these benefits at Port terminals.

As an alternative, regulators allow the Maryland Port Administration to mitigate its stormwater impact by conducting valuable restoration projects in other parts of the city.

The schoolyard greening program alone has already removed more than eight acres of blacktop at city schools and replaced it with grass, trees, and gardens. Removing the blacktop has reduced stormwater flow from the schoolyards, including measurable reductions in the amount of phosphorus running offsite.

Schoolyard greening not only helps meet regulatory requirements, but also provides



*The Maryland Port Administration's schoolyard greening program has replaced more than eight acres of schoolyard blacktop with grass, trees, and gardens. Examples of participating Baltimore City schools include:*

- *Matthew A. Henson Elementary School*
- *Baltimore Montessori Public Charter School*
- *Franklin Square Elementary School*
- *Benjamin Franklin Middle School*
- *Curtis Bay Elementary School*
- *Barclay Elementary School*
- *Windsor Hills Elementary School*
- *Hamilton Elementary/Middle School*

urban school children with a green oasis and environmentally friendly space for exercise and outdoor learning.

### **Partnership in Action**

The Maryland Port Administration has worked with several partners to identify school sites, coordinate with school administrators, develop design plans, and arrange for the removal and recycling of blacktop. Partners include the Baltimore City Public Schools, Parks & People Foundation, Baltimore City Department of Recreation and Parks, local watershed associations, and the engineering firm of Moffatt & Nichol.

The Parks & People Foundation works with schools and communities to develop the design concept and maintenance program for the green schoolyards. Eight schools have been greened to date. The cost has averaged approximately \$150,000 per acre.

The Port Administration's greening projects give schools an opportunity to complement the ongoing efforts of many other organizations and funders. The Chesapeake Bay Trust, for example, has funded many schoolyard projects. Some private corporations have offered financial support, and Civic Works has provided workforce assistance. The Parks and People Foundation, National Aquarium at Baltimore, Living Classrooms Foundation, and Baltimore watershed groups frequently work with students and teachers on stewardship projects.

These combined resources create an ever stronger package for environmental and outdoor education in Baltimore public schools.

### **More Greening, More Schools**

The Port Administration is currently installing green areas at the Baltimore Polytechnic Institute that will collect and filter stormwater runoff from up to three acres of existing parking lots, while providing students with a



*Replacing schoolyard blacktop with green spaces provides a setting for outdoor and environmental education. It also delivers measurable reductions in the amount of polluted stormwater that would otherwise run offsite into local streams, rivers, and ultimately the Chesapeake Bay.*

hands-on opportunity to monitor water quality. The Port Administration expects to continue such projects with one or two schools on an annual basis.

Schoolyard greening may also play a role in mitigation plans for the dredged material placement site at Masonville. However, while Masonville and other Port activities will continue to create opportunities for schoolyard greening, Baltimore has a limited number of schools with grounds large enough for cost-effective projects. This means that the Port Administration must also use other strategies to offset environmental impacts.

At Masonville, for example, the Port Administration has constructed an environmental education center and will conduct stream restoration projects, create wetlands, install trash net systems at stormwater outfalls. The Port Administration has also created a partnership for the restoration and reforestation of state-owned parkland.

While schoolyard greening is one winning solution, the search for other effective mitigation projects will continue. ■