



Maryland Green Registry MEMBER

The Maryland Green Registry promotes and recognizes sustainable practices at organizations of all types and sizes. Members agree to share at least five environmental practices and one measurable result while striving to continually improve their environmental performance.

St. Mary's County Public Schools



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www.smcps.k12.md.us/
Public School System
Member since August 2010

Management and Leadership



Environmental Team

The mission of the St. Mary's Public Schools Green Schools Program is to educate, encourage, and support participation in sustainable activities that better use natural and economic resources and take into account the needs of future generations, as we "Work, Live, and Learn for Tomorrow." The Green School Technical Committee meets quarterly to discuss the overall progress towards our Green School objectives and to discuss current and proposed initiatives. The Green School Coordinators in each school meet collectively as a group quarterly to receive training, network, and collaborate on their Maryland Association of Environmental and Outdoor Education certification status.

Green School Objectives

- *Educate, encourage, and support the changing of behaviors and the participation in sustainable activities*
- *Support all St. Mary's County Public Schools in obtaining the Maryland Association for Environmental and Outdoor Education Green Schools certification by 2013*
- *Provide information, training, and education to students, staff, and the community through the mobile classroom, Green School Coordinators, and community outreach events*
- *Provide accessible energy and recycling data*
- *Facilitate the delivery of programs for energy and environmental learning opportunities*

- *Promote energy and environmental conservation utilizing operational processes and procedures*
- *Provide award and incentive programs for conservation efforts*
- *Celebrate our successes in conservation and sustainability through recognition and acknowledgement*

Environmentally Preferable Purchasing

We use the Anne Arundel County Public Schools office supply contract awarded to Office Depot. They have designated many items as “green” and provide a “Green Book” which identifies environmentally labeled supplies. They can also aggregate total spending according to green categories.

Cleaning products that are used in facilities are green products. They have to meet either the Green Seal of Approval or the Environmental Choice (Canadian equivalent) requirements.

Environmental Restoration or Community Environmental Projects

A major part of our Green Schools Program is to educate and inspire our students, staff, and community to participate in sustainable activities. To facilitate the initiative, we have a mobile classroom that we utilize for outreach events such as our county fair, Earth Day, Farm to School, and other “green” events to provide information, resources, and education on conservation and sustainability. The mobile classroom provides a means for us to promote our school construction program, conservation initiatives, and to provide hands on learning opportunities to engage our students.

In addition, we have a mascot for our program named “Wattson.” This full scale terrapin visits our students as a sustainability ambassador to encourage and promote the Green School objectives and to “seek out” opportunities to help the students conserve energy and improve the environment at their school.

Waste

Recycling

Our system utilizes single stream recycling, allowing us to recycle a vast variety of materials including: cardboard, plastics, aluminum, steel, tin, food and beverage containers, and paper. During 2011, we recycled an average of 29.64% of our waste, saving the school system approximately \$17,662.

A new marketing campaign launched for the 2010-11 school year encourages all students and staff to increase our recycling efforts by educating

everyone on what can be recycled. Information is presented on how to pack a “green” lunch from home.

As part of our construction program, 75% of the construction debris from our new Evergreen Elementary School was recycled and diverted from the landfill.

Energy



Energy Efficiency

Our school system utilizes a program called Utility Direct by SchoolDude which allows us to track and analyze the amount of energy usage per school and per square foot. This allows us to identify and analyze utility waste, savings opportunities, and billing errors. The information is available through the web to the Green School Coordinators. This information allows the Green School Coordinators to work with their school teams to reduce energy consumption at their schools as part of our Energy Conservation Program. The Capture the Flag contest awarded the school that reduced their electricity consumption the most from the same month of the prior year, the Energy Award Flag to fly at their school for the month. The Capture the Flag contest is being reconfigured to be a Green School Audit which will incorporate energy efficiency as well as other sustainable activities at each school. Since FY 2007, we have reduced our electric consumption by 18,349,961 kWh, for a cost savings of \$2,403,139.

Our school system received \$290,000 as part of the supplementary appropriation funded through an increase in the state alcohol sales tax that was added to the FY 2012 Public School Construction Program Capital Improvements Program. We have opted to use this funding for lighting projects at Chopticon, Great Mills, and Leonardtown High Schools, Esperanza, Margaret Brent, and Spring Ridge Middle Schools, and Lettie Marshall Dent and Mechanicsville Elementary Schools. The project will replace the high intensity discharge lights in the secondary gymnasiums, auxiliary gyms, and some cafeterias with energy efficient lighting that will also improve the lighting levels in these areas. This project is targeted for a spring 2013 construction time frame.

In April 2012, the General Assembly approved \$25 million of the Public School Construction Program funding to be dedicated to an Energy Efficiency Initiative (EEI) for projects that improve the energy efficiency of schools. We submitted projects to replace the existing exterior lights with energy efficient lights at most schools as part of the FY 2014 State CIP. A portion of the project will also include installing controls to tie the exterior lights to the existing building control system. This will allow lights to be turned off from a central location for holidays and breaks instead of the current manual method. It will also make it

easier to adjust the hours the lights operate in accordance with Daylight Savings Time.

Renewable Energy

Our new LEED Gold elementary school, Evergreen Elementary School, has 26 solar panels which are providing approximately 7kW or 1.5% of the school's power. In 2010, St. Mary's County Public Schools received a grant from the Maryland Energy Administration (MEA) for capital rebates for the installation of large scale solar photovoltaic (Solar PV) installations as part of Governor O'Malley's Project Sunburst initiative. St. Mary's County Public Schools was one of twenty-one recipients in the State to receive a Project Sunburst grant. The grant for St. Mary's County Public Schools is \$1,000 per kilowatt (KW) of installed Solar PV energy systems up to a maximum of \$497,000 for the proposed installations at George Washington Carver Elementary School (GWCES).

The system consists of 840 roof-mounted solar panels and 1,274 ground mounted solar panels. Combined, the generating capacity of the solar PV system is 500 KW which will produce an amount of electricity that is equivalent to 80% of the annual electric consumption at the school. The system is installed and operated under a power purchase agreement (PPA). Over the 15 years of the PPA, SMCPS is expected to save as much as \$1.4 million in energy costs. SMCPS intends to use the annual savings to fund renewable energy and energy conservation projects at other schools. In April and June 2012, GWCES did not consume any kWh supplied by Southern Maryland Electric Cooperative (SMECO).

Transportation

Fleet Vehicles

A new geographic information system (GIS) system was acquired and implemented that incorporates the functionality of efficient redistricting of school boundaries and bus routes. This will allow the analysis of efficient bus routes which will conserve fuel and reduce miles traveled.

Water

Water Conservation

Water conservation and efficiency is a priority for St. Mary's County, which depends entirely on underground aquifers. Evergreen Elementary School serves as a model for water conservation through the use of a number of technologies. Located immediately adjacent to the main entrance, two large

15,000 gallon wooden cisterns collect rain water from the roof. This water is used to flush all of the toilets in the building. These cisterns, in conjunction with low flow faucets, dual flush toilets, and waterless urinals, assist with a projected 92% reduction in water usage at this new school when compared to using conventional plumbing fixtures and systems. Waterless urinal and low flow technology is also integrated into other projects such as renovations.

Stormwater Management and Site Design

A compact site design on an environmentally sensitive site led to the conservation of a majority of the dense forest on Evergreen Elementary School site. A bioretention area near the main entrance shows how stormwater runoff from the road is mitigated and interpretative signage explains the process. The parking area was designed to provide preferred spaces for bicyclists and carpool vehicles.

Green Building

LEED Gold

Evergreen Elementary School, which opened in August 2009, was constructed under the LEED Gold rating system for new construction. This facility will serve as a prototype design for the next elementary school which is scheduled for construction funding approval in FY 2014.

Profile Updated October 2012



Help build a greener, more sustainable Maryland through voluntary practices that reduce environmental impacts and save money.

Learn more at green.maryland.gov

