



## 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.

# Harford County Public Schools



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[www.hcps.org/](http://www.hcps.org/)

Education

Member since October 2009

## Management and Leadership



### **Environmental Team**

*The Resource Conservation Steering Committee's mission is to evaluate the current state of our school system's sustainability by analyzing the effectiveness of our energy management plan and environmental stewardship through education. The Resource Conservation Manager meets with the committee to review progress made on our goals and to establish new initiatives toward sustainability. Membership includes the Director, Facilities Management Department, Assistant Superintendent for Operations, Principal, North Harford High School, Assistant Supervisor of Resource Conservation and Facilities Mgmt., Building Engineer, Southampton Middle School, Educator, Bel Air High School, Assistant Supervisor of Environmental Science, Curriculum Dept., Purchasing Assistant, Purchasing Department, Senior Business Representative for BGE, Assistant Supervisor of Mechanical Engineering, Planning and Construction, Asst. Supervisor of Energy and Automated Building Systems and Facilities, Budget Analyst, Finance Dept., Teacher Specialist, Elementary Environmental Science, Carpentry & Construction Instructor HTHS, Chief of Efficiency and Innovation, Harford County Government, and Lead Secretary, Facilities Management Department.*



### **Environmental Policy Statement**

*The purposes of this policy are to establish Board goals and objectives relating to energy conservation and environmental stewardship; to facilitate responsible conservation practices; to emphasize environmental education*

*curriculum; to allow Harford County Public Schools (HCPS) to comply with current and future regulations relating to energy management and conservation; to establish practices that will be applied to all aspects of HCPS operation to include but not limited to Operations and Facilities Management, Transportation, Planning and Construction, Purchasing, and School Based Decisions.*

### Policy Statement

*It is the policy of the Board that HCPS shall conduct its business and operations to the extent reasonable and practical, so as to:*

- 1) Utilize the minimum amount of energy.*
- 2) Explore and implement energy conservation programs.*
- 3) Utilize technology to monitor energy usage.*
- 4) Explore the use of renewable energy sources in both new and existing facilities.*
- 5) Utilize alternative funding approaches to leverage implementation of renewable energy, conservation, recycling projects through partnerships with private organizations and other creative funding strategies.*
- 6) Partner with other government institutions in energy and environmental stewardship programs.*

*The Superintendent will consult with the Energy Management Committee to develop, review, and implement procedures which more fully implement this policy.*

### **Environmentally Preferable Procurement**

*We use the U.S. Communities 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.*

*All cleaning solutions that are used in schools are Green products except for the disinfectant. A Green disinfectant has not been made available yet. All newly ordered equipment, ranging from a floor buffers, vacuums, to the cleaning rags, are green compliant. Recycle Paper/Trash Liners & Restroom paper products are all recyclable.*

### Waste

#### **Recycling**

*Our system utilizes single stream recycling, allowing us to recycle a variety of materials. In the first year of operation, our recycling program reduced our operational costs by \$114,000. In addition, we reversed an annual cost escalation*

*of approximately \$45,000 to a four-year low. Materials that we recycle include all types of paper and cardboard (including books), plastics, and aluminum/steel/tin food and beverage containers.*

## **Composting**

*HCPS initiated a commercial composting pilot program in 2009 at one of the high schools and an elementary school. The program has now expanded to twelve school sites where we are collecting approximately 216,000 lbs of food waste annually. Students and cafeteria employees place food waste in large bins provided by Veteran Compost which are collected twice a week and taken to the company's farm in Aberdeen. Once on site, the material is processed into rich renewable compost that is ready for sale to farmers, landscapers, and home owners.*

*HCPS is actually using some of the nutrient rich compost to amend the soil on our own sports fields. This process makes the fields less compact so they are safer for play and reduces the need to use fertilizer for grass growth. In addition, the program is serving to support the curriculum in our schools. This fall several environmental science teachers are scheduled to tour the Veteran Compost facility in Aberdeen to gather insights for use in their classroom.*

*See our composting process [here](#).*

## **Energy**

### **Energy Efficiency**

*Our school system has a building automation program provided by Utility Direct which allows the Facilities Dept. to keep track and monitor the amount of electricity usage per school and per square footage. This allows us to see which schools are using the most power. Upon request, we can filter information to each school. We use this information to identify areas of need to direct our efforts. Our energy reduction strategies allowed us to redirect \$400,000 from our operational accounts to support our special education program. In addition, we have recently completed a third phase of Performance Contracting with Johnson Controls to facilitate extensive energy efficiency projects in 27 of our schools. Our first two performance contracts result in an average annual savings of \$800,000. Our current phase has resulted in a cost avoidance of \$5,312,245 in its second year and is expected to achieve over \$20,756,000 over 15 years. We have also upgraded lighting at our schools using the BGE EnergySavers Rebate program. Through this program, we've reduced energy usage by 4,031,075 kWh annually,*

saving \$443,000. This program has provided almost \$2,000,000 in rebate funds to support our goals.

**Renewable Energy**

*We have successfully installed scale solar electric stations on six of our school sites. The systems are expected to reduce operational costs by \$2,000,000 over the twenty-year contract with the solar provider. In addition, we have utilized solar hot water systems at two of our schools and recently installed a wind turbine at our Harford Glen Environmental Center to generate electricity for the site and serve as an educational tool for our students.*

## Transportation

**Fleet Vehicles**

*Harford County Public Schools has been awarded a \$264,000.00 grant by the Maryland Department of the Environment as part of the American Reinvestment and Recovery Act (economic stimulus money). Most of the grant funds will be used to retrofit the latest emission control technology onto older diesel engines in an effort to reduce diesel emissions and provide a cleaner atmosphere both in Maryland and around our schools. The plan is to install Diesel Particulate Filters (DPF's) and Closed Crankcase Ventilation Systems (CCVS's) onto our pre-2007 school busses. In addition, grant funds will be used to purchase a filter cleaning machine that can be used on our diesel busses to keep them running as pollution free as possible and reduce our operational costs. A Diesel Particulate Filter is a filter which goes into the exhaust system of the bus and greatly reduces the amount of pollution or particulate matter that escapes into the atmosphere through the exhaust system. The bus then uses a process called "regeneration" which generates high temperatures within the exhaust system to burn the soot out and keep the exhaust system functioning properly. The Closed Crankcase Ventilation System is a device which keeps fumes from exiting the engine into the atmosphere. After the vapors pass through the device, the filtered oil is then returned to the crankcase of the engine for continued use.*

## Water

**Stormwater Management and Site Design**

*HCPS has partnered with the Department of Natural Resources to design and construct three large scale rain gardens at our elementary schools. These gardens mitigate water run off while serving as an excellent teaching tool for our students. In addition, we have recently installed a pervious concrete patio at one*

*of our high schools to study its effectiveness on reducing rain water runoff. Our new green roof on the concessions stand at Joppatowne will also assist us in better addressing run off issues.*

## **Green Building**

### **LEED Gold**

*Our new headquarters building is LEED Gold using the Rating System for New Construction. In addition, we are proud to announce that our Joppatowne Elementary School has been awarded LEED status as well. Our new elementary school currently under construction is expected to achieve LEED Gold as well.*

### **Sustainable School Construction Project**

*We recently partnered with over 25 members of the construction industry to build a new concessions stand at one of our high schools. This building uses many state of the art sustainable construction processes and materials such as a green roof, pervious concrete patios, LED lighting and ICF walls. Partnering with the USGBC, we have hosted two workshops for green construction at the facility.*

## **Other**

*In our efforts to continually evaluate our sustainability efforts and areas of concern, we have developed the following programs;*

- *Green Cleaning for environmentally friendly cleaning supplies*
- *Team cleaning to reduce lighting demands and improve efficiency*
- *No Idling for any of our fleet vehicles at any school site*
- *Pharmaceutical Recovery to properly dispose of unclaimed medication has collected over 2000 lbs. of medication from our schools*
- *Furniture Refurbishing to recondition our school furniture rather than dispose into the waste stream*
- *In addition to being members of the Maryland Green Registry, we are members of The Maryland Recycling Network, and The United States Green Building Council*
- *Host of over 5 Sustainable School Operations workshops for our region*



**View our video**

***Profile Updated June 2017***



**Maryland**

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

*Learn more at [green.maryland.gov](http://green.maryland.gov)*

