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.

Prince George's Community College

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Higher Education
Member since November 2009

Management and Leadership

☑ **Environmental Team**

Prince George's Community College utilizes the Senior Team Council and the College Wide Forum governance structure as the directional and oversight body to facilitate implementation of its environmental/sustainability program. In support of the FY 2014-2017 Strategic Plan and to expand investment in learning environments to support student retention, progression and completion, a College Wide Sustainability Plan is being developed. This process will include the development of an environmental policy statement, a review of existing processes/operations for environmental impact, establish specific goals for the program and create an action

☑ **Environmentally Preferable Procurement**

Prince George's Community College continually conducts a review of products and services to determine ways to reduce environmental impacts. As a result of the latest review, the following actions have been taken:

- *Energy Star designated equipment is standard for equipment replacement*
- *Fluorescent 2X2 tubes are being replaced with LED 15 watts*
- *Standardized on T-8 bulb replacement using a low power factor ballast and 25 watt bulb. (This will reduce the wattage to 22.5 watts).*
- *Use of Green Seal certified paper products for restroom applications such as tissues and towels. Products are made from 100% recovered paper fiber meeting EPA guidelines for post-consumer materials and Green Seal standards for bleaching, deinking, and packaging.*

- *"Green Cleaning Processes" - a cleaning plan based on the assessment of space, products, and work practices to maximize cleanliness while reducing unnecessary hazardous cleaning chemical exposures. Provided worker training on Green Cleaning practices. This process improves indoor air quality, increases recycling, and minimizes the use of raw materials and toxic substances*
- *Installation of high quality entrance systems making use of external and internal matting and "trapping" system made of 100% post-consumer recycled PET reclaimed from plastic drink bottles and SBR rubber backing made with 15% post-consumer recycled tires. This matting stops contaminants from entering the building, reduces the amount of cleaning (labor and cleaning chemicals), protects floor surfaces from premature wear, and reduces volatile organic compounds (VOCs) in the building(s).*
- *Use of color-coded cleaning materials and processes (i.e., cleaning cloths, dry mopping and wet mopping technologies) to prevent cross-contamination, spread of disease and bacteria, and/or incidental mixing of chemicals which can result with the use of standard "white rag/white mops" and a multi-use product line.*
- *Use of micro-fiber cleaning cloths, dusters to trap and retain 60% more dirt/soil than conventional cleaning cloths.*
- *Use of HEPA filtration vacuum cleaners (vacuums capable of trapping 99.97% of airborne particles 0.3 microns and larger), resulting in 70% reduction in vacuum dust emissions, a 45% increase in dust collection, and improved indoor air quality.*
- *Implementation and ongoing use of "Scrub and Recoat" vinyl composition tile (VCT) programs to reduce VOCs and reduce costs incurred for annual stripping, sealing and refinishing processes. Stripper is only used every 5 years*
- *Campus-wide annual carpet extraction— prevent carpet gas emissions and improve indoor air quality by 35% therein extending carpet life from 3-7 years, and supporting noise reduction by 65% at the same time.*
- *Eliminated of the use of refrigerants with hydro chlorofluorocarbons (HCFCs) (ozone layer damaging) in chillers. NU22 is now replacing R-22*
- *Construction project include as a standard the use of recycled materials such as concrete, carpeting and wallcovers.*

☑ **Environmental Restoration or Community Environmental Projects**

Prince George's Community College hosted the annual Prince George's County Greenfest in September 2014 which included exhibits and vendors of green products and services. This festival provided fun, education, and information sharing about sustainable practices and products. This is the

college's fifth year of working in partnership with the county and hosting this event

The College partners with the State to promote job growth and environmental sustainability. The College is one of 13 two-year colleges in Maryland offering courses in weatherization and energy efficiency through an affiliation called the Construction and Energy Technologies Education Consortium (CETEC). The College established the Construction and Energy Institute, which is the umbrella organization for all construction- and energy-related courses, programs and partnerships. The College offers hands-on courses such as Building Energy Analyst, assessing an eligible dwelling for potential weatherization services, and Weatherization Crew Tactics, installing weatherization measures in eligible dwellings. The collection of offerings is provided through a number of components, including skilled trades programs, construction management, green construction, national certifications and online courses. In 2014, one thousand five hundred and fifty one (1551) seats were filled taking all Skilled Trade courses.

The College has hosted, along with NBC 4 (WRC-TV Washington, D.C.) and Shred- IT, annually for the past three years a free on-campus paper shredding event. The entire community is able to shred and recycle their waste paper free of charge.

Waste

☑ **Solid Waste/Material Use Reduction and Reuse**

Prince George's Community College is placing emphasis on reducing, reusing and recycling materials. Our standard trash removal has been reduced by 26.5% over the last five years. Old furniture, equipment and material is cleaned or repaired or stored for further use. Only furniture that is considered beyond economical repair is placed in the waste stream. The program's success is recognized by a 25% reduction 16,000 lbs. to 12,000 lbs. last year and a reduction of 31.25% over the past four years in bulk trash disposal.

The college has moved to a single stream recycling program. Our recycling efforts have increased 39.97 % in 2014 over the previous year. In 2015 we will continue to emphasis what to recycle and reduce the standard trash. With a new waste removal contract, our approach is to develop a partnership with the vendor to improve recycling by using industry "best practices".

The College has reduced the amount of solid waste going to landfill by over 37.5% over the past two years. The amount of standard trash going to

landfills has been reduced by 363 tons/year. The amount of bulk trash going to landfills has been reduced by 34 tons per year. These reductions have been achieved through a combination of recycling and waste reduction practices including the establishment of central receiving of all goods, which allows us to review and control what comes into the college, reducing packaging, and better control of bulk/construction wastes.

☑ **Recycling**

The College, working with local vendors, has implemented a single stream recycling program. As we prepare to solicit bids for a multi-year waste removal program, the College is looking for best practices in reducing reusing and recycling its waste. The bid specification will include an opportunity for the potential supplier to explain how they will work with the college to improve the waste program.

In 2014, the college increased its recyclables by 39.97 % over 2013 to recycling 40.14 tons.

Prince George's Community College disposes of used computer equipment and parts/components through a firm that guarantees any and all harmful chemicals and elements are extracted and recycled. None of the components end up in landfills.

☑ **Hazardous Waste/Toxic Use Reduction**

Prince George's Community College has reduced hazardous waste generation through environmentally responsible material substitution or elimination, process change, and spill prevention/response procedures.

- *Replaced standard base chemical products (for in-house custodial services) with Green Seal Certified base chemical products. As of this year, this process has reduced the number of active cleaning chemicals by 28% reducing the number of chemicals used by Environmental Services by 21.*
- *Continued to use and have actually enhanced in the use of low to no volatile organic compound (VOC) materials and paint finishes in all repairs, renovations, and new construction Utilizes an Integrated Pest Management (IPM) Program which continues to reduce the use of pesticides in preventing, controlling, and/or eliminating pest control issues. The college staff includes a licensed Pesticide Applicator*
- *Obtained and have maintained again this year, Maryland Department of Environment (MDE) Detection Certification for the College's underground storage tanks. All tanks are in compliance with MDE criteria and standards.*

Energy

☑ **Energy Efficiency**

Prince George's Community College has implemented the following energy efficiency measures:

- *Data Center utilizes server virtualization to reduce the number of servers needed by more than 30 units. This greatly reduces energy and cooling demands from data center operations.*
- *Replaced all CRT monitors with flat screen monitors that consume considerably less energy per monitor.*
- *Used dual-fired boilers (oil or natural gas) versus electric in the Bladen Hall central plant. These boilers provide heating for three academic buildings, student center, library, fine arts center, and an administrative building.*
- *Gas-fired boilers (versus electric) are used for heating in the Center for Advanced Technology, Center for Health Studies, Chesapeake Hall (academic building), Novak Field House, Bickford Natatorium, and the Facilities Management Building.*
- *The Bladen Hall central plant has an interruptible account allowing it to utilize both gas oil.*
- *Installed energy efficient lighting utilizing compact fluorescent bulbs and electronic ballast throughout all campus facilities.*
- *The College has partnered with Pepco's Energy Saving Program and received rebates totally to date $129,161. Projects included lighting, chillers and VFD installation.*

Transportation

☑ **Employee Commute**

- *In 2014, 16.7% of students attended classes online reducing the need to commute to the college.*
- *5 Extension Centers located throughout the county make it more accessible to commute to the college*
- *Installation of bicycle racks throughout the campus*
- *Low emission vehicle parking currently 19 spaces are designated*

☑ **Efficient Business Travel**

Prince George's Community College, along with all Maryland Higher Education Institutions, take advantage of the University System of Maryland's excellent video conferencing system. This system provides maximum

participation and minimal travel for monthly meetings of various functional staffs. The College utilizes GO-TO Meeting and Skype

☑ **Fleet Vehicles**

The College has 14 smaller, more fuel efficient vehicles which replaced older model full size vans and trucks. The College is now considering additional vehicle substitutions as well as the purchase of alternative fueled vehicles (hybrid or electric) for on-campus use.

Water

☑ **Water Conservation**

The College has implemented a number of water conservation measures including:

- *Installed waterless urinals in Center for Health Studies*
- *Installed low flow plumbing fixtures in the Center for Advanced Technology.*
- *Installed low flow urinals in the men's restrooms at an academic building, the student center, fine arts center, and the field house; water consumption per flush reduced from 5.1 to 1.4 gallons.*
- *Installed sensor flush valves on urinals and water closets at all renovated and newly constructed facilities.*
- *Majority of campus landscaping requires little or no irrigation due to native and drought resistant plantings.*
- *Have designated no mow areas*
- *Installed pervious concrete walkways*
- *Rainwater reclamation provided by three installed rain cisterns. This water is used for local Irrigation*

☑ **Stormwater Management and Site Design**

The College constructed bio-retention facilities in conjunction with several construction and renovation capital improvement projects. Bio-retention areas are landscaping features adapted to treat storm water runoff on the development site. Surface runoff is directed into shallow landscaped depressions and these depressions are designed to incorporate many of the pollutant removal mechanisms that operate in forested ecosystems. The filtered runoff is collected in a perforated under-drain and returned to the storm drain system. Bio-retention facilities are located in four separate areas at Prince George's Community College.

- *The 2013 Biology class project included the construction of a rain garden on campus*

- *Use of green roofing (vegetated roof) technology is part of the roofing system for Center for Health Studies.*
- *Use of pervious paving walkways*

Green Building

☑ **LEED Certified**

The Center for Health Studies constructed in 2012 was designated LEED Certified and include some of the following green features:

- *Bio-retention storm water management facility*
- *Innovative storm water design*
- *Native plantings*
- *Rain water reclamation for irrigation*
- *White reflective Energy Star roof*
- *Green roof (vegetated) system*
- *Super insulated building envelope (exceeds energy code requirements)*
- *Daylighting controls—sunscreens and shade devices*
- *High performance windows*
- *Use of low VOC materials and paint finishes*
- *Use of recycled materials*
- *FSC certified wood products*
- *Variable frequency drives (VFDs) on all secondary pumps*
- *Variable air volume (VAV) air handling units with VFD motors*
- *High efficiency motors*
- *Energy recovery unit for office portion of building*
- *Hydronic heat in lieu of electric heat*
- *Boilers with at least 94% thermal efficiency*
- *Small air conditioning units are heat pumps (not electric heat)*
- *Multiple chillers for efficient partial load operation*
- *Computer room designed with hot/cold aisles to address thermal loads efficiently*
- *Communication rooms served with chilled water units in lieu of split system condensing units*
- *Building systems commissioning to verify operating parameters*
- *Building temperature settings will be controlled through the campus Energy Management System*
- *Sensor faucets and water closets on lavatories*
- *Waterless urinals*
- *High efficiency (98%) water heater*
- *Daylight and occupancy sensors and lighting control systems*

- *High efficiency lighting*
- *Use of Green Seal Certified paper products in restrooms*
- *Use of a combined external/internal matting system at building entrances.*

The Center for Advanced Technology was completed in FY2007. Several energy saving features were incorporated into this building including:

- *Building commissioning*
- *Energy efficient lighting*
- *Daylight controls—sunscreens and motorized shade devices.*
- *High performance windows that reduce solar heat gain.*
- *Boilers with a 94% thermal efficiency.*
- *Large motors are controlled by variable frequency drives (VFDs). VFDs save energy by running motors at less than 100% output when full power is not needed.*
- *High efficiency motors were used for machinery.*
- *Use of small heat pumps (for air conditioning and heat) versus electric heat.*
- *White reflective energy star roof.*

All future renovations and new construction projects are being designed as LEED Silver certified.

Profile Updated May 2015