



## District Nominee Presentation Form

### CERTIFICATIONS

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#### District's Certifications

The signatures of the district superintendent on the next page certify that each of the statements below concerning the district's eligibility and compliance with the following requirements is true and correct to the best of the superintendent's knowledge.

1. The district has been evaluated and selected from among districts within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
2. The district is providing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
3. OCR has not issued a violation letter of findings to the school district concluding that the nominated school district has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
4. The U.S. Department of Justice does not have a pending suit alleging that the school district has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
5. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the school district in question; or if there are such findings, the state or school district has corrected, or agreed to correct, the findings.
6. The district meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

### U.S. Department of Education Green Ribbon Schools District 2015-2018

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Name of Superintendent: Stephen A. Lockard, Ph.D.

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

District Name: Fairfax County Public School Division

(As it should appear on an award)

Address: 8115 Gatehouse Road, Falls Church, VA 22042

Telephone: (571) 423-1010 Fax: (571) 423-1007

Web site/URL: [www.fcps.edu](http://www.fcps.edu) E-mail: [superintendentlockard@fcps.edu](mailto:superintendentlockard@fcps.edu)

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

\_\_\_\_\_  
(Superintendent's Signature)

\_\_\_\_\_  
Date: January 23, 2017

(Superintendent's Signature)



**Nominating Authority’s Certifications**

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the district’s eligibility and compliance with the following requirements is true and correct to the best of the Authority’s knowledge.

- 1. The district is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
- 2. The district meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: Virginia Department of Education

Name of Nominating Authority: Dr. Stephen Staples  
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

\_\_\_\_\_Date: January 27, 2017

(Nominating Authority’s Signature)

**SUMMARY AND DOCUMENTATION OF NOMINEE’S ACHIEVEMENTS**

Provide a coherent summary that describes how your district is representative of your jurisdiction’s highest achieving green school efforts. Summarize your strengths and accomplishments, being sure to cover equally all three Pillars. Then, include concrete examples for work in every Pillar and Element. Only districts that document progress in every Pillar and Element can be considered for this award.

**SUBMISSION**

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to [green.ribbon.schools@ed.gov](mailto:green.ribbon.schools@ed.gov) according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509  
Expiration Date: March 31, 2018

**Public Burden Statement**

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email [ICDocketMgr@ed.gov](mailto:ICDocketMgr@ed.gov) and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

## Summary Narrative/Abstract

Fairfax County Public Schools (FCPS) is the 10th largest school district in the nation by enrollment with over 220 facilities, including 198 schools and centers, with a total area larger than four Pentagons. The district's comprehensive environmental education and sustainability program has been expanded into a systemic collaboration, dubbed Get2Green. Get2Green's mission is to promote student learning and action using the environment as a foundation, which is aided in part through a partnership with the National Wildlife Federation's (NWF) Eco-Schools USA program. Get2Green is driven by students, employees, businesses, and the greater community through a variety of initiatives. These initiatives are aligned with the FCPS Strategic Plan called 'Ignite' in both Goal 1 Student Success and Goal 4 Resource Stewardship. Through creation of the FCPS Sustainability Team, stakeholders meet biannually to support and strengthen existing programs, create new and innovative initiatives, expand student involvement, and provide greater community outreach. Get2Green has created competitive programs running division-wide awareness campaigns, provided annual student internships with authentic sustainability experiences, and voluntarily engaged 150 schools in student-driven stewardship activities such as recycling, building wildlife habitat, conserving energy, and growing food.

Many schools in FCPS, such as Flint Hill ES and Centreville ES, have implemented the NWF Cool School Challenge by sending teams of students to all public areas of the building to conduct audits with Kill-a-Watt meters, lumens meters, and temperature gauges. Action plans are developed based on the results of these audits and executed with constant data analysis as part of the work the students are doing. The Challenge estimates both the reduction in CO2 emissions and Kwh the school is producing so students see their impact firsthand.

To further facilitate this work, a Get2Green website was launched in summer 2016 that features several sustainability-related dashboards. The dashboards provide data on energy, recycling, and Eco-School USA progress in a way that encourages student and teacher engagement and competition between schools. The dashboards included on the website are interactive web tools that enable users to view resource use at all schools or for the district as a whole. This interactive website was created in-house as an innovative way to inform students, employees, and the community about the impacts FCPS schools have on the natural world and methods for reducing this impact. The website has already proven to be a useful tool for learning, teaching, researching, and empowering change.

In 2016, a group of interns from FCPS high schools worked with Get2Green to expand the resources on the website. They visited classes at all grade levels to demonstrate the use of the website and collect feedback to optimize functionality. They garnered excitement for participation in a district-wide energy conservation challenge taking place in spring 2017 and performed facility audits with staff. They also developed an innovative social marketing campaign to promote the challenge using social media platforms. The students' work helped improve Get2Green's use of social media to share efforts.

The Department of Facilities and Transportation Services (Facilities) is setting an example for students and the community by investing one third of every project dollar into increasing energy efficiency and sustainability efforts (geothermal, rain water cisterns, LED lighting, variable refrigerant flow mechanical systems, water source heat pumps, bio-filtera, solar hot water heaters, highly reflective roofing, pervious pavers, etc.)

Through Get2Green and FCPS' partnership with the energy conservation company Cenergistic, FCPS has realized \$10 million in energy savings since 2014. During this same period, FCPS experienced an 11% reduction in greenhouse gas emissions, a value in excess of 40,000 metric tons of CO<sub>2</sub>e. This is equal to more than 1 million tree seedlings that would have to be grown for ten years or over 9,000 cars not being driven for one year. These results were primarily achieved through Get2Green's energy conservation program, Eco-School work, and partnerships with companies such as Cenergistic. Student eco-teams recorded a collective reduction of 440,640 Kwh with the work they are doing.

Of the 90 FCPS schools registered as Eco-Schools, 33 have achieved an award. Twelve schools have achieved Green Flag status and three have earned double Green Flags. A Green Flag is the highest achievement a school can earn through Eco-Schools. FCPS has more Green Flags than any other school district in the country, making up more than 20% of the national total with only 52 other schools nationwide achieving Green Flag status. All Green Flag Eco-Schools must work on the reduction of energy use and at least two other environmental topic areas. On top of the work Facilities Management engineers are doing (6% reduction in carbon emissions from 2014 to 2015), these student teams are making a measureable reduction in our carbon footprint.

In 2015, 146 schools earned ENERGY STAR certification, the most of any school district in the nation. This accomplishment played a key role in Washington, D.C., achieving the EPA's #1 city for ENERGY STAR certified buildings ahead of San Francisco and Los Angeles. FCPS anticipates 152 schools to be certified in 2016 when the final results are announced.

Since 2014, FCPS has realized more than \$10 million in energy savings as a result of Get2Green and through partnership with energy conservation companies like Cenergistic. FCPS anticipates more than \$95 million dollars in energy savings by the year 2025.

## **Crosscutting Questions**

FCPS has participated in various local, state, and national programs related to environmental impact reduction, staff/student health and wellness, and environmental and sustainable education. Five schools are currently engaged in the EPA Battle of the Buildings to reduce their energy use. FCPS is partnered with the NWF Eco-Schools USA program and has the most Green Flags (15) of any school district. The district also has the most ENERGY STAR certified schools (146) of any district in the nation.

FCPS was a recent recipient of the Metropolitan-Washington Council of Government's Climate and Energy Leadership Award for 2016. The Climate and Energy Leadership award recognizes organizations in the Washington, D.C. region for their pursuit of environmental opportunities and stewardship in line with greater regional greenhouse gas reduction goals. Climate and Energy Leadership Awardees are recognized in front of local, regional, and national officials to bring attention to their successes and serve as a role model for the National Capital Region. FCPS also recently received the Virginia School Board Association platinum level green school rating and the Virginia Energy Efficiency Council Award. One school, Centreville ES, was named one of the top 10 US Green Schools by NWF. FCPS has six schools certified through Virginia Naturally Schools, Virginia's official environmental education school recognition program.

The FCPS Employee Wellness Program has been recognized by the American Heart Association and awarded its Gold Award as a "Fit Friendly" company since 2009. The program is

administered through the Office of Benefit Services in the Department of Human Resources. Its mission is to promote initiatives that enhance the overall health and well-being of FCPS employees. Wellness initiatives are based on scientific evidence and provide health information and fitness strategies to inspire healthy lifestyles and lower health risks for all FCPS employees.

In 2015, FCPS started an interdepartmental Sustainability Team that meets monthly to compare notes on current projects and to discuss new ideas for sustainability that have been raised by stakeholders, administrators, or students. This group also hosts biannual stakeholder meetings to solicit input on a variety of topics. The first of these meetings was held in June 2016 and the second was held in December 2016. The December meeting included a tour of the “green” features of a recently renovated high school and solicited input from stakeholders on a green school incentive program and on the plans for increasing the sustainable food program. Stakeholders include local businesses, non-profits, students, teachers, administrators, and staff from various departments. The FCPS Sustainability Team directly supports individual school eco-teams that bring together stakeholders in the school community - including students, teachers, custodians, cafeteria staff, families, and other volunteers - to engage in making school-based sustainability efforts successful.

## **Goal Area 1: Reducing Environmental Impact and Costs Element**

### **Energy Savings**

FCPS is committed to reducing energy consumption wherever possible to take advantage of conservation’s benefits to the environment and budget. School Board Policy #8542 Environmental Stewardship prioritizes the practices to be developed and implemented by staff members in order to address climate change and to meet other important environmental stewardship initiatives. New ventilation standards, green cleaning practices, green diesel technology, purchasing of fuel efficient vehicles, water conserving designs, mandatory recycling programs, and drought-resistant landscaping are key practices in achieving the energy conservation goal. The commitment to educating students and staff members in environmental stewardship responsibilities furthers this goal.

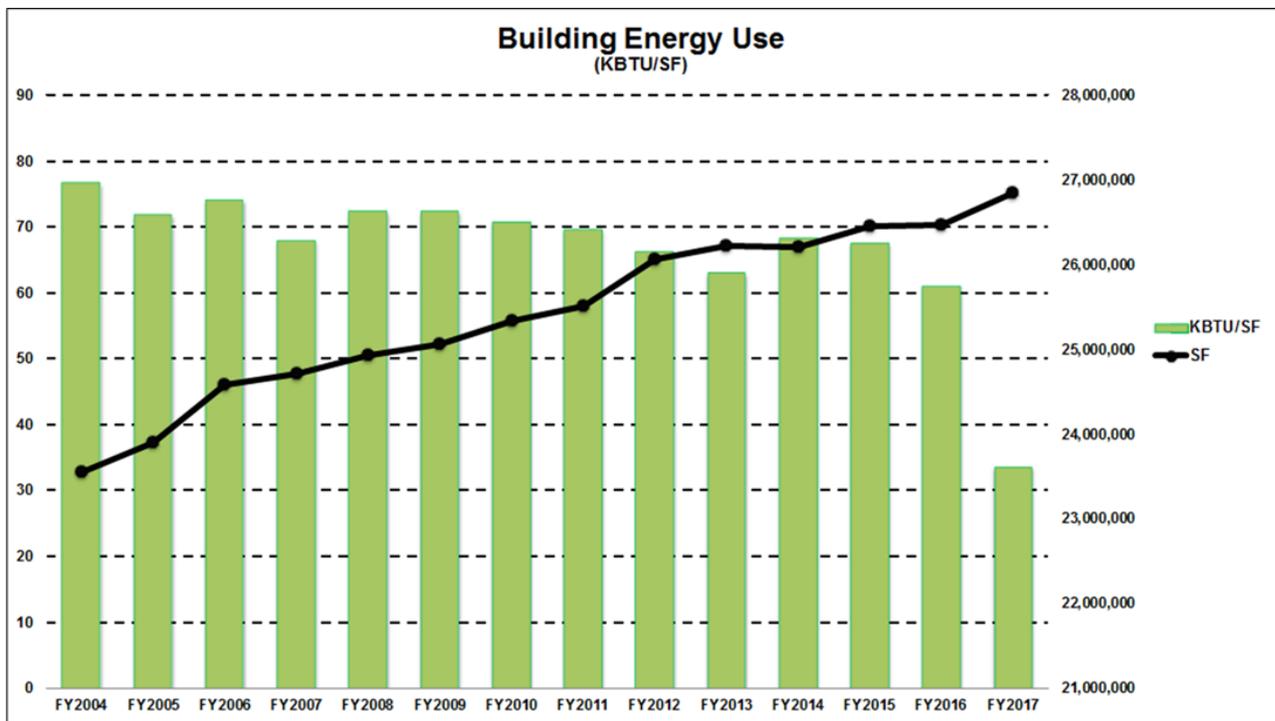
Regulation #8534 Energy Conservation Measures supports the Environmental Stewardship Policy by outlining the operations and maintenance of all FCPS buildings, grounds, and equipment for energy conservation measures. This policy advises that all thermostats be set between 70-76 degrees during occupied hours. Unoccupied setpoints should be 55 degrees in the heating season and 85 degrees in the cooling season to conserve energy. This regulation also directs bus drivers to minimize bus idle time. To reduce emissions and wasted fuel through idling, the Office of Transportation Services receives notifications through the Automated Vehicle Locator system when idling exceeds three minutes and often issues reminders over the radio, in safety messages, or in internal monthly publications. FCPS entered into a contract with Cenergistic, an energy conservation company, on February 1, 2014. Cenergistic has introduced a set of energy conservation guidelines to further expound the guidance of Regulation #8534, providing enhanced methods for energy conservation and sustainability and providing energy specialists to aid in ensuring success.

FCPS and Cenergistic use EnergyCAP, a third party accounting software that specializes in cost avoidance calculations to validate energy savings, track utility bills, and manage energy data. With EnergyCAP, FCPS can track any energy or non-energy commodity, greenhouse gas (GHG)

emissions, and any type of bill detail, then produce and distribute meaningful reports to stakeholders. FCPS has experienced an 11% reduction in GHG emissions, a value in excess of 40,000 metric tons of CO<sub>2</sub>e. This is equal to more than 1 million tree seedlings being grown for ten years or over 9,000 cars being taken off the road for one year.

EnergyCAP software also provides an interface for automated submission of building energy data to ENERGY STAR's Portfolio Manager. Through the interface, ENERGY STAR returns energy use information and an ENERGY STAR building rating for energy efficiency that can be used to achieve certification status. This function is critical for FCPS to achieve a top ranking among ENERGY STAR certified school districts. As shown in the graph below, energy use intensity has declined despite the steady increase in the total square footage of our buildings.

Through a comprehensive approach, FCPS has improved how each aspect of the current operations and infrastructure is analyzed. Every piece of equipment, and every system, is optimized for effectiveness and efficiency through managing a team of engineers and other energy experts who work with Facilities staff. Cenergetic energy specialists work with FCPS staff to ensure that the entire organization is engaged with the energy conservation program. This collaborative partnership has been key to FCPS realizing over \$10 million in energy savings since the program's inception. With continued dedication to this work, the district expects more than \$95 million in energy savings by 2025.



To complement the success of conservation in reducing GHG emissions, FCPS is committed to purchasing and generating energy from renewable sources. In 2012, Mason Crest ES, a repurposed administrative building, became a model of energy efficiency and sustainability by using geothermal energy for heating and cooling. This geothermal system is comprised of a well field located under the ball fields in the playground of the school with no above ground structures. Water is pumped underground to the through pipes in the well field that act as a heat

source in the winter and a heat sink in the summer. Heating and cooling for the building is provided entirely by this system with no supplemental source of energy.

In addition to geothermal, FCPS is reviewing possibilities for the development of solar energy. Feasibility studies are being conducted to provide a high-level, customized view of potential savings through solar energy and expect to include solar panels as both a source of renewable energy and valuable education tool for students in the future.

Geothermal and solar energy are two prime examples of FCPS' "green" building initiatives. However, there have also been continual improvements on energy conservation measures during the design and construction phase of each building. High efficiency HVAC systems are used in both new and renewal projects. Water Source Heat Pump (WSHP) or Variable Refrigerant Flow (VRF) systems are installed. These HVAC systems are highly efficient and provide a high degree of occupant comfort. At each school, all HVAC equipment is controlled by a computerized Automatic Temperature Control (ATC) system. The ATC system saves energy by stopping and starting equipment, setting temperatures back during unoccupied times, controlling the intake of fresh air, and allowing network access to help Energy Management manage and troubleshoot equipment without putting trucks on the road unnecessarily. Through the use of variable frequency drives (VFDs), pumps and fans are prevented from running at full speed when they do not need to, saving even more. FCPS also employs energy recovery units (ERUs) that precondition incoming air with energy from the outgoing exhaust air, saving a corresponding amount of energy.

Though water is not often in short supply in our region, it is nevertheless a precious resource. "Lo Flo" plumbing fixtures are installed that use far less water than older types of fixtures and meet or exceed current code. The district's current design features sensor type faucets rather than mechanically metered faucets. These fixtures reduce water use and maintenance. Any reduction in maintenance requirements means a possible reduction in vehicular travel by maintenance personnel and a corresponding reduction in CO2 emissions.

FCPS is setting an example for students and the community by investing one-third of every project dollar into increasing energy efficiency and sustainability efforts. A bulk of this investment is geared toward reducing the district's heat island effect, including more than \$6.5 million in cool roof installations. The district's Master Specifications (Division 07152) define the requirement for any contractor seeking a bid with FCPS to comply with a rigid set of standards for cool roof installation and insulation. FCPS building projects are built to Collaborative for High Performing Schools (CHPS) specifications. FCPS has played an instrumental role in the development of the CHPS standards for Virginia.

Prompted by the unnecessary destruction of trees in the county due to development, the County Board of Supervisors unanimously passed the Tree Planting and Preservation Ordinance to be included in the Fairfax County Public Facilities Manual (PFM). The ordinance includes requirements for a 10-year tree canopy plan, providing ample shade coverage for a large portion of the urban population. FCPS includes PFM requirements in all ongoing construction and renovation projects, including but not limited to reforestation efforts.

### **Improved Water Quality, Efficiency, and Conservation**

FCPS uses EnergyCAP software to track water consumption. Quarterly detailed consumption data are recorded and consumption is monitored by water meter for any out-of-trend

consumption activity. Unusual consumption patterns are immediately investigated, enabling FCPS to quickly find and fix water leaks and user caused increases. Teachers and administrative staff are provided with an Energy Savings Checklist of steps taken to assure water is off and water leaks reported. FCPS reduced water consumption by over 3.2 million gallons in 2015 compared to 2014, which is a 4.4% reduction.

To further conserve water, FCPS has installed drought-resistant landscaping with native plants and low maintenance landscape areas for reduced irrigation. Examples of customized projects during 2015 include restoring a wetland, vernal pool, and rain garden at Belle View ES; planting native gardens in new courtyards at Westgate ES; and creating a native garden of more than 1,500 sq. ft. at Quander Road School. Cisterns are installed at selected schools to capture rainwater from roofs, filter the water, and distribute it to native plants in rain gardens. Several of these cisterns were installed through National Fish and Wildlife Foundation grants. The cistern program is complemented by a robust rain barrel program funded by the Fairfax County Department of Public Works and Environmental Services (DPWES). Rain barrels at schools are providing localized irrigation water for landscaping and gardens. These rain barrels and cisterns also help to lessen the amount of stormwater runoff from FCPS facilities.

FCPS has taken significant steps to control the amount and quality of stormwater runoff. All renewal and new construction projects include site remediation components designed to meet stormwater quantity and quality standards set by Fairfax County and the Commonwealth of Virginia. A variety of remediation efforts are taken to control the quantity and velocity of water runoff, increase natural percolation of water into soil, remove sediment and floatable particles, store and release water, and reduce harmful pollutants such as metals, phosphorous, and nitrogen. Such efforts include underground bio-filtration boxes such as Filtera; underground separators such as BaySaver; underground storage and percolation systems such as StormTech; pervious hard surfaces such as open joint pavers, pervious concrete, and pervious asphalt; and bioswales and rain gardens. An interdepartmental team of FCPS staff works closely with Fairfax County personnel to ensure that all requirements of our MS4 permit are met.

FCPS has and continues to implement Nutrient Management Plans for acres where nutrients are applied in order to reduce pollution. During the 12 months ending June 30, 2016, 82% of elementary school, 73% of middle school, and 23% of high school identified acres were being managed under the program. The total area managed is being increased each year.

Cleaning of parking lots with sweeper trucks and hand sweeping to reduce sediment and trash occurs on a regular schedule. During the 12 months ending June 30, 2016, approximately 186 tons of debris were collected through sweeping operations.

Safe drinking water for students and employees is a priority for FCPS. The water source for all schools is municipal water, which is tested by the municipalities. As a precaution, FCPS maintains its own testing schedule at all schools. There have been no elevated levels of lead or other contaminants detected since the 1990s, with one exception. Approximately 50 water coolers installed in schools and offices were immediately replaced upon discovery of slightly elevated lead levels from solder joints.

Sustainable landscaping in FCPS is enhanced by the district's partnership with the US Fish and Wildlife Service on the FCPS Urban Wildlife Habitat Program. This program engages students in planning, constructing, utilizing, and maintaining wildlife habitat on their school grounds to

increase biodiversity, conserve water, minimize mowing, and serve as an outdoor classroom. There are currently native wildlife habitats at 84 schools, and 40 additional schools are interested in establishing a native wildlife habitat.

The Schoolyard Stewardship Mini Grant (SSMG) program run by Facilities provides funding to schools to implement projects that engage students in topics such as biodiversity, energy, school grounds, sustainable food, transportation, and water. The program resulted in 51 projects during 2014 and 2015 that included native habitat gardens, edible gardens, pollinator gardens, outdoor classrooms, raised planting beds, and a GroLab (with garden plants, compost tumblers, and resource material for students).

### **Reduced Waste Production**

To limit the environmental impacts of the large quantity of paper used in schools, FCPS began purchasing Natural Choice recycled copy paper with 46% recycled fibers in January 2016. The paper is certified sustainable by the Sustainable Forestry Initiative and the Programme for the Endorsement of Forest Certification. It is also chlorine-free.

FCPS Regulation 8541 requires all FCPS facilities to recycle. This is done through two recycling initiatives. The first is single-stream recycling of paper, cardboard, glass, metal, and plastic. The second is recycling of fluorescent light tubes and bulbs. Each facility has recycling posters detailing what can be recycled and recycling bins for material collection. There are currently 138 schools with cafeteria recycling and 168 schools with classroom recycling. Playing fields at every school have recycling bins.

The district's recycling rate in 2015 was 20.68% and rising due to initiatives such as food sharing, composting, and the replacement of polystyrene cafeteria trays with recyclable cardboard trays in fall 2016. Recycled material by weight has increased by 1.8 million pounds annually, a 37% increase since 2012.

Schools are encouraged to establish Food Sharing programs where untouched food items are collected and donated to homeless shelters and food banks. Food sharing programs are currently in place at 54 schools. Churchill Road ES collects 80 pounds for food sharing every day, reducing its volume of food waste sent to landfills by almost 30%. While not quite as popular as food sharing, composting is also being implemented at 31 schools to reduce trash output and provide fertilizer for school gardens.

To reduce waste generated by construction and renovation, waste materials from these projects are separated and recycled. Local recycled content is used in new and renovated schools when available.

Procurement, monitoring, inventories, removal, and proper disposal of hazardous materials is overseen by the Office of Safety and Security (OSS) per VOSH Standard 1910.1450, Laboratory Safety and Chemical Hygiene; VOSH Standard 1910.1200, Hazard Communication; and FCPS Regulation 8628. OSS delivers instructions and training to staff regarding hazardous materials disposal. Biannual training on good housekeeping and pollution prevention procedures is also provided.

FCPS ensures that staff, community groups, and contractors that may apply pesticides and herbicides receive the proper state certification through the Virginia Department of Agriculture and Consumer Services (VDACS).

Examples of hazardous materials are unknown chemicals, flammable chemicals, caustic/corrosive chemicals, oxidizers/reactives, poisons, petroleum products, and non-hazardous liquids (i.e. latex paints). FCPS recycles approximately 75,000 used fluorescent bulbs annually. Two bulb crushing machines pulverize bulbs and contain the mercury to be properly disposed. The Chemical Hygiene Officer (CHO) inspects laboratories and chemical storage, assists in training staff, and provides resources regarding implementation of the Science Safety Standards. The CHO has authority for approval, disapproval, and confiscation of chemicals.

FCPS has integrated green cleaning in custodial functions and is phasing in Green Seal cleaning products as new commodities contracts are let. Use of green equipment (such as HEPA filtered equipment, buffers, and vacuums) reduces particulates and improves air quality. Green rated cleaning products and chemicals with low to no volatile organic compounds (VOCs) are used. No aerosol products are used. Dilution control systems prevent over-concentrated cleaning products. Additional equipment for improved cleaning and air quality include microfiber dust and wash cloths, treated dust mops, walk-off matting, and recycled floor pads. Cleaning staff are asked to team clean in order to reduce energy use by limiting the areas of the buildings requiring heating, cooling, or lighting. Currently, testing is being performed to determine best practices for use of pretreatment snow melt in place of ice melt.

FCPS follows Fairfax County government's lead with the Environmentally Preferable Purchasing Policy (EPP Policy). The EPP Policy directs county departments to consider environmental impacts of the goods and services they purchase. There is a catalog of contracts for environmentally friendly goods and services from which to choose. This includes LEED-compatible furniture, energy- and paper-saving copiers, water recycling car wash services, carpet recycling, and recycled products.

### **Use of Alternative Transportation**

In order to combat growing regional congestion, FCPS has long embraced alternative methods of transportation to schools including walking or bicycle routes for students living within a set proximity from the school as well as sponsoring bus pass programs for use on public transit. According to Fairfax County government data, the Free Student Bus Pass Pilot Program saw more than 100,000 student trips on commuter transit between September 2015 and April 2016. This is in addition to the more than 130,000 students transported on over 1,600 FCPS school buses each day.

Nationwide in the last 40 years, student walking and bicycling to school declined from 48% (1969) to 13% (2009). During this time period, the percentage of parents using Kiss and Ride increased. The increase in Kiss and Ride users has complicated traffic conditions around many schools and frequently results in idling vehicles. To combat this trend, FCPS has applied for and been awarded Safe Routes to School (SRTS) grants. For the past three years, the FCPS SRTS program has helped promote walking/biking to school through pedestrian and bike safety lessons for over 15,000 students as well as developed and distributed signage to schools for Kiss and Ride areas that discourage car idling and promote walking.

Because of Get2Green and SRTS efforts, the number of schools hosting walk/bike events has more than doubled in the last three years. In October 2016, FCPS had the highest number of schools in Virginia participating in International Walk to School Day (83 middle and elementary schools). Schools extend promotions by implementing walking school buses, Walking

Wednesdays, and other walking/biking activities throughout the school year. Biking to school is made easier by bicycle storage provided through the Office of Safety and Security. In 2015, 21 additional bicycle racks were installed at schools. Currently, 90% of the 198 FCPS schools have bike racks. This year, SRTS will visit 24 schools, bringing a fleet of bikes, to teach units on bicycle safety. Two schools will receive their own set of bicycles for student instruction. Students in grades four through eight practice bike safety skills and learn about rules of the road for cyclists. By teaching pedestrian and bicycle safety skills, more students can use active transportation safely. In addition to helping students become physically active and taking cars off the road, SRTS also helps schools address the transportation pathway of Eco-Schools.

FCPS Policy #8542 defines the Outdoor Air Quality (OAQ) requirements for the district. To do its part to improve general air quality in the region, FCPS maximizes the use of school buses with green diesel technology using ultra low sulfur diesel fuel and, when replacing vehicles, gives preference to fuel efficient vehicles.

## **Goal Area 2: Improving the Health and Wellness of Students and Staff**

### **Integrated School Environmental Health Program**

FCPS Regulation #8550 Pest Control established procedures for pest control services with the inclusion of integrated pest management practices as set forth in the EPA publication 735-F-93-012. All pest control services are supplied by licensed certified plant operations section pest control personnel. Plant operations sections are contacted for all emergency situations requiring immediate attention. Plant operations services personnel coordinate pest control operations that require controlled pesticide application with the principal through electronic work order submission. Each principal is responsible for compiling a list of parents who want to be notified when pesticides will be applied within the school building.

OSS provides the knowledge and expertise required to keep the school division at minimal risk exposure to potentially hazardous contaminants. OSS also complies with federal, state, and local fire, health, and safety codes that impact the school division. The responsibilities of OSS include, but are not limited to: coordinating indoor environmental monitoring; investigating and resolving complaints/concerns involving sensitive health issues; developing and implementing programs to assure system wide compliance with Occupational Safety and Health Administration and Environmental Protection Agency regulations; managing inspections of all FCPS facilities to evaluate compliance with environmental and safety laws, regulations, and standards; developing employee-training programs designed to assure a safe and healthful work and learning environment; directing and monitoring the selection, purchase, storage, and handling of hazardous chemical materials; managing the minimization and disposal of hazardous waste generated at all FCPS facilities; administering the Blood-borne Pathogen program; and conducting water testing.

The Office of Facilities and Maintenance (OFM) is responsible for developing maintenance procedures to allow maximum efficiency in supervising and maintaining school facilities, and performs maintenance tasks as required. Air filters are replaced every three months. Unit ventilator cleaning and maintenance occur on a quarterly schedule. Coil cleaning is prioritized based on which units are in the most need. The night FCPS Operations HVAC staff ensures the proper operation and cleaning of all of our HVAC equipment. Teachers are requested to avoid

blocking unit ventilators or using them as shelving to prolong the lifespan and efficiency of these units.

FCPS building designs focus on improving student achievement by reducing ambient noise, optimizing classroom acoustics, maximizing natural lighting, and improving air quality. OFM has taken additional measures to improve the indoor air quality as part of state and national standards. In compliance with Virginia Mechanical Code, all programmable thermostats in portable trailers and classrooms are set with the fan position to “On” in order to ventilate odors and pollutants from classroom environments.

FCPS works with the Fairfax County Health Department to consult with local medical, dental, and emergency departments to develop a guide to outline the policies and procedures for school clinic room aides, staff members, and volunteers to handle health care emergencies. Some preventive steps include reviewing the Individual Health Care Plan (IHCP) with school nurses; discussing strategies to reduce potential risk of allergens that could trigger asthmatic episodes; providing education about asthma and allergen triggers to other students, parents/guardians, etc.; knowing where student inhalers and medication are located at all times in case of an event (per IHCP); making sure that a copy of the student’s IHCP and emergency procedures are available for substitute teachers and transportation personnel; and following up after an incident to determine the source of potential allergen triggers.

To improve indoor air quality (IAQ) and prevent exposure to asthma triggers at school, FCPS has established ventilation standards to ensure that temperature and humidity are maintained at comfortable levels. During renovations, IAQ is tested before construction in order to establish a baseline and is monitored regularly to ensure that quality levels are maintained. During renovations, FCPS observes more stringent IAQ standards than are required by the EPA. FCPS has adopted green cleaning practices for FCPS facilities in order to minimize negative effects on IAQ. Instituted green cleaning practices include filtration devices on buffers and vacuums, special entryway mats at all entrances to prevent the spread of dust, treated dust mops, and microfiber cleaning cloths. In the near future, Green Seal cleaning products and products with low to no VOCs will be phased in to use.

FCPS Policy #8628 establishes approval authority and specifies a strict acquisition procedure for chemicals and chemical products used in instructional programs, building operations, and maintenance in order to provide for the safety of students and employees. These procedures are designed to control the acquisition of chemicals that are purchased and stored, to assure compliance with the Virginia Occupational Safety and Health Laboratory Safety and Chemical Hygiene Standard (VOSH 1910.1450), to ensure that users of approved chemicals and chemical materials have safety information in the form of a material safety data sheet (MSDS) as required by Hazard Communication Standard (VOSH 1910.1200), and to minimize the generation of hazardous waste and disposal. In addition to policies and regulations governing chemical management, OSS publishes the Science Safety News, a newsletter designed to share important safety information that will help protect students and teachers in a science classroom. All secondary science teachers and elementary science lead teachers receive training in chemical management.

OSS provides guidance to employees to regularly monitor areas for airborne spores, nutrients, and moisture that combine to cause mold and mildew. Spores are always present in outdoor and indoor air. FCPS recommends to all staff that they take the following steps to prevent and

control mold and mildew growth: keep doors to unoccupied rooms open during summer vacation to allow air flow; do not leave carpeting and other surfaces wet; leave any room that contains moist surfaces open to avoid mold and mildew problems; do not overset carpeting; when cleaning carpets, use only the hot water extraction method; use fans to dry carpets quickly; avoid adding excess moisture to the building interior during cleaning activities; never use a hose inside the building to flood floors or to wash tables and chairs; assign someone to walk the school every day to check walls, ceilings, and furniture for the presence of any mold or mildew growth; and note musty odors and signs of moisture. Incidents of mold, mildew, condensation, or leaks are reported to Facilities Management to be addressed.

### **Nutrition and Fitness**

Of the 198 schools and centers in FCPS, 160 have earned awards through the USDA's HealthierUS School Challenge, with 24 schools earning the Gold Award of Distinction for excellence in nutrition and physical education. This achievement perfectly complements FCPS health and wellness curriculum and the vision of preparing all students to actively and effectively achieve and promote lifelong wellness. It also connects to work some schools do on the Healthy Living Eco-Schools pathway to focus on increasing the amount of physical activity and time outdoors students receive.

FCPS is in the process of creating a national nutrition model that supports student well-being with nutritious meals. Efforts to source food more sustainably as part of this process are relatively new. Over the next five years, salad bars will be implemented in all 141 elementary schools. A Farm to School Coordinator was recently hired to work on upcoming initiatives regarding sustainable food procurement. Work will focus on collaborating with local farmers to procure foods to use in our school nutrition programs, recruiting farmers for classroom education and farm tours, collaborating with schools to utilize harvested produce in school nutrition programs, and strengthening relationships with school gardens to provide garden-based nutrition education curricula. While access is vitally important to changing the school food environment, a nutrition educator was also recently hired to assist in linking sustainable food to the classroom and beyond. The nutrition educator will not only work with staff on evidence-based nutrition curricula, but provide students with service learning opportunities that will expand their scope of learning in food and nutrition. Food and Nutrition Services is committed to showing how a school district can be an agent of change in the community by challenging perceptions of school food and the positive impact it can have.

As more school gardens are established in FCPS, the success of the nutritional education programs continues to grow. There are currently vegetable gardens at 78 FCPS schools, with 48 additional schools interested in starting a vegetable garden on their school grounds. Schools incorporate their gardens into the curriculum by weighing what they grow, doing cost/benefit analyses, studying the growth cycle of plants, and conducting research to create informational signs. The produce grown in a school's garden is used in culinary classes or for salad parties, added to the cafeteria inventory, or donated to local food pantries or low-income families at the school. FCPS is partnered with the Audubon Naturalist Society to bring their Salad Science program to Fairfax County. The Salad Science program was piloted in two schools in the 2015-16 school year and has expanded to five schools for the 2016-17 school year.

The FCPS School Board adopted a comprehensive Student and Staff Health and Wellness Policy in May 2016 and a Regulation in October 2016 that meets the Healthy Hungry Free Kids Act.

The School Health Advisory Committee provides the primary input on the wellness policy. The Policy includes guidelines for physical education, physical activity, and health education. It also directs each school or department to have a staff wellness liaison to support the wellness policy and to make school recreational spaces available to staff members during non-school hours as appropriate.

Students in grades K-10 receive a comprehensive health and physical education program that exceeds the Virginia Standards of Learning for Health and Physical Education. This includes students accessing and exploring concepts in nutrition, fitness, sun safety, and healthy living across both content areas. Health and physical education provide formal and informal opportunities for teachers to instruct and promote sun safety, especially when physical education teachers are utilizing outdoor spaces. Students are encouraged to wear sunscreen, use sunglasses, and/or wear hats. FCPS has a local health curriculum that is consistent across the school division and is vertically articulated across grade levels. The curriculum encourages students to extend their learning and advocacy by providing them with opportunities to create meal plans for their family at home, develop strategies for personal and community safety including promoting sun safety practices, and create healthy living messaging such as Public Service Announcements and social media campaigns. Many schools go beyond the curriculum to extend student learning by incorporating opportunities for students to explore international food days, providing culinary activities, hosting health and wellness fairs, and supporting school garden initiatives to allow students to grow their own produce.

Per FCPS School Board regulations, elementary students receive the state-required 150 minutes of physical fitness per week through a combination of physical education and recess. Many schools exceed the 150 minute minimum requirement through additional physical education instruction and recess time. Students in grades 7-10 receive 225 minutes per week of physical education. While physical education is not required in grades 11 and 12, FCPS offers a variety of physical education electives for students in these grades. Electives include personal fitness, advanced physical education, and a fitness instructor course. The fitness instructor course prepares students to earn an industry credential as a personal fitness trainer.

Ensuring staff health is as important to FCPS as ensuring the health of students. FCPS has achieved the American Heart Association's Gold Award annually since 2009 for being a Fit Friendly company. Employees are offered a free online wellness platform called Get Active to use on an ongoing basis. The Get Active platform, which is also available as a mobile app, allows employees to set fitness and wellness goals and develop support systems with colleagues to achieve these goals. Two virtual fitness challenges are offered annually for employees to compete individually or on teams to virtually cover a certain distance, such as the length of the Appalachian Trail. The last two competitions have each seen over 3,000 employees participate. Our Employees Assistance Program (EAP) website offers webinars, podcasts, interactive tools, and tip sheets on healthy eating. There is also free health coaching available for all employees via the EAP. The Employee Wellness website has a blog that provides ways to eat healthy on the run and shares nutritious recipes. Customized onsite workshops on fitness, stress reduction, and healthy eating are offered at multiple sites throughout the district. In 2017, FCPS will launch a wellness incentive for completion of a health risk assessment.

The efforts to improve student and staff wellness are aided by community partners. FCPS has worked with Alliance for a Healthier Generation to increase staff awareness of the FCPS

Wellness Program. Get2Green, Instructional Services, and Food and Nutrition staff have been active on the Fairfax County Collaborative for a Healthier Fairfax since 2013. Working with this partnership, food desert areas in the county have been identified and work has commenced to provide more food access in those areas by increasing summer food programs such as free BBQ stations. Efforts have also focused on developing school gardens and nutrition programs that reach out to the culturally diverse populations at schools in food deserts.

Every year, the Fairfax County Board of Supervisors and Fairfax County School Board co-sponsor the Fairfax County Youth Survey to monitor the behaviors and attitudes that affect the health and well-being of Fairfax County youth. Students in grades six, eight, ten, and twelve are surveyed. The information collected in this survey guides schools, community groups, and government agencies in their management of programs intended to improve healthy behaviors.

In October 2016, FCPS hosted the third annual Mental Health and Wellness Conference focusing on student mental health. The Conference featured over 50 breakout sessions on topics such as resiliency, brain-based disorders, parenting, expressing and managing stress, executive functioning, and recognizing and managing depression and anxiety. Participants included teens, parents, coaches, educators, mental health providers, and individuals connected with organizations that work with teens.

FCPS has a zero-tolerance policy for bullying. School administrators take immediate action, including contacting parents/guardians and recommending a consequence, for bullying incidents. Serious threats are reported to the police. The individualized education program (IEP) team may have a student referred to it if the bullying incident involved a student with a disability. School administrators, counselors, psychologists, or social workers also work with students and intervene with the student who engaged in the bullying behavior, with the target of that behavior, and with the bystanders who witnessed the behavior.

Some middle and high schools in FCPS offer elective courses or after school clubs in peer mediation. In elementary schools, student peer mediators are taught communication, active listening, and mediation management skills to help peers work together to peacefully resolve disputes.

### **Goal Area 3: Providing Effective Environmental and Sustainability Education**

#### **Shared Responsibility for Environmental Learning**

In 2009, FCPS decided to invest in an Instructional Services position to promote the School Board goal for environmental stewardship. That position has grown from a half time position to a full time Program Manager for Environmental Stewardship in Instructional Services with a dotted line reporting to Facilities Management. A part-time Program Assistant for Environmental Stewardship was also hired by Facilities to support ongoing sustainability initiatives and to aid in the development of environmental and outdoor education for students. The investment in these positions demonstrates an interdepartmental commitment to meeting the goal of graduating environmental stewards, which is part of the district's Portrait of a Graduate strategy. This strategy has instructional personnel focused on developing programs such as Get2Green and STEAM to promote 21st century skills that make students good communicators, collaborators, creative and critical thinkers, global and ethical citizens, and goal-directed and resilient individuals. As part of the Instructional Services Leadership Team, the Program Manager for Environmental Stewardship is at the table as teacher materials and training are

developed to promote district initiatives. This ensures that environmental topics are incorporated into project based learning (PBL) work, STEAM, and interdisciplinary content areas.

A decision was made early in Get2Green's existence to not develop or adopt a specific curriculum for environmental education. Instead, Get2Green works to integrate the environment as a concept across existing content areas. Examples of this include a first grade science unit focused on the cardinal and other birds that has students design bird habitat, a second grade science and social studies unit focused on the Monarch butterfly that asks students to build butterfly habitat, and a fourth grade science and social studies unit focused on Virginia ecosystems with lessons hosted outside that focuses on human impacts on the environment. In total, FCPS has over 100 elementary science lessons that ask teachers to take students outside for investigations, and there is a guide to these lessons available to teachers. Get2Green plans to expand this guide to include multiple subject areas at all grade levels to allow for as many lessons as possible to connect to the outdoors. In general, the curriculum developed by FCPS specialists exceeds the requirements of the Commonwealth of Virginia in all subject areas. Science specialists are currently involved in the re-working of the state science standards.

At the secondary level, FCPS Life Science students in grade 7 participate in a Meaningful Watershed Educational Experience (MWEE) by visiting a local stream and conducting a variety of qualitative and quantitative tests which they subsequently use to evaluate the field site's "health." Students use scientific equipment to test water quality, examine macroinvertebrates, understand watershed characteristics, and identify the best management practices for storm water runoff. This is the second year of a redesign of the seventh grade semester-long ecosystem unit that includes this MWEE through a NOAA B-WET grant. The redesign will foster environmental stewardship projects by every student. Seventh grade life science teachers are being trained to use PBL techniques to work with the students. As the International Baccalaureate Environmental Science and Society course changed to require an additional student data-driven investigation, FCPS is working to develop materials to support student stewardship projects by providing data sources and materials for these global issue analyses.

FCPS introduced outdoor backpacks in fall 2016 to facilitate outdoor education for students in all grade levels. These backpacks contain binoculars, magnifying glasses, and bird guides to make it easy for teachers and students to conduct lessons outside. Teachers were required to complete a workshop on using the backpack and on using the outdoors as a classroom for a variety of lessons before receiving a backpack. Demand and enthusiasm for the outdoor backpack training was so high that another session of the course is planned for early 2017.

A variety of courses have been offered for staff over the years to assist them in providing age appropriate environmental education experiences for students. In the 2015-16 school year, course offerings included topics such as edible gardening, developing wildlife habitats, creating outdoor classroom space, becoming an Eco-School, and energy auditing and conservation. These courses are available to administrators, teachers, volunteers, and secondary students. In 2017, a 15-hour Get2Green course is being offered to train and provide resources to school-based staff to engage students in environmental stewardship activities at their schools.

Get2Green's professional development is designed to increase teacher and administrator background knowledge of ecological concepts and important issues in the Chesapeake Bay watershed. Through a variety of partners donating speaking time and spaces for education, we offer courses on the Potomac River and the Bay. An annual Chesapeake Classrooms course is

offered with the Chesapeake Bay Foundation that focuses on various teaching methods, such as PBL. That course is usually team taught by the environmental stewardship program manager with instructional specialists from STEAM, service learning, and PBL.

Early on, FCPS defined environmental stewardship as not only graduating students with knowledge of environmental topics, but graduating students with an understanding that their individual actions make a difference. With that in mind, efforts began to increase use of the environment as an underlying concept in curriculum development and an infrastructure was developed to promote student-driven stewardship projects. The program manager began to focus in four major areas: developing external partnerships and resources to assist schools and communities; providing technical expertise to schools; providing professional development for Get2Green stakeholders such as teachers, administrators, and custodians; and developing internal partnerships across FCPS.

With lots of schools to work with and few resources, the importance of outside partnerships was clear from the beginning. FCPS partnered with the NWF Eco-Schools USA program and has used that program as a format for schools to engage in stewardship work. The Eco-Schools program asks schools to create student-driven eco-teams with staff and community support, have students audit the school and community around a number of environment-related pathways to gain baseline data, develop an action plan, measure the action plan's success with additional audit data, and continue an iterative process of improvement. This process fits perfectly with district-wide work in PBL, STEAM, and inquiry learning in science and other subjects. All of the work students are doing to be successful in Eco-Schools leads them to gain many, if not all, of the Portrait of a Graduate skills. FCPS has 90 registered Eco Schools, of which 33 have received an Eco-Schools award. Get2Green collaborates with NWF on Eco-Schools audit development and professional development programs to promote Eco-Schools.

FCPS is also partnered with the US Fish and Wildlife Service, Patuxent Research Refuge on their Urban Wildlife Habitat Program. Patuxent Research Refuge provides interns, hosts field trips, and shares speakers and expertise on Chesapeake Bay issues and innovative work on other environmental topics. They have also funded wildlife habitat at ten schools.

FCPS is closely aligned with several Fairfax County government agencies, such as DPWES, on stormwater management. This partnership extends across all departments. FCPS Design and Construction works with DPWES in the design phases of construction and renovation, and OFM works with them on maintenance of best management practices. DPWES provides assistance to schools to educate students and staff on stormwater management processes and to engage students in stewardship projects. Other agencies help schools in areas such as wastewater treatment, solid waste management, garden planning, and storm drain marking.

FCPS also works with approximately 30 other organizations that lend expertise to schools and to the district for professional development programs. Some of these organizations send personnel for work days, or help run district-wide competitions such as the Business Case competition to promote recycling (Ernst and Young) and the district-wide energy conservation challenge (Provia Windows providing LED light bulbs).

Through work with NoVA Outside and George Mason University (GMU), FCPS student teams participate in the School Environmental Action Showcase that is held every spring. Student teams network with other teams and participate in activities such as the Caring for Our

Watersheds competition, KidWind Competition, and eco-art events. Students also interact with and learn from over 20 organizations that run hands-on activities and discuss environmental careers. This event is a culminating event each year affording students authentic audiences for the work they are doing to improve their environment.

### **Use of the Environment and Sustainability to Develop STEAM Content**

FCPS STEAM (STEM + the arts) vision statement is as follows: *To inspire and engage all students through rigorous project-based inquiry, interdisciplinary learning, and research- and field-based experiences. It will foster school-based cross-curricular collaboration and facilitate relationships with higher education institutions, the public and private sectors, professionals, and parents, providing authentic hands-on experiences.* To that end, FCPS uses both the indoor and outdoor environments as a context for STEAM education. Integration of STEAM concepts are evident in the planning, design, and delivery of instruction. Specifically, teacher-developed STEAM curricula that address renewable energy and environmental stewardship are available to all FCPS teachers through an internal resource repository. An example of available resources is a sixth-grade STEAM Unit that addresses science, math, and technology standards via PBL. Students design wind blades and turbines that generate enough energy to power an electronic device. Through the unit, students discover their carbon footprint, find the energy consumption of basic household products, and analyze the sustainability of both renewable and nonrenewable energy sources.

Launched this school year, the Edison Global STEM Challenge Program provides innovative learning opportunities to a cohort of approximately 90 students. The science, mathematics, and technology/engineering teachers at Edison HS collaborate to create interdisciplinary units of study that tackle real world challenges, modeled after the National Academy of Engineering's Grand Challenges. One unit, particularly, addresses food sustainability as students are charged with designing ready-to-use therapeutic foods for people with nutrient deficiencies. Students also design devices to address transportation challenges related to moving foods to areas of greatest need. Through this program, in addition to Governor's STEM Academies, students are learning about green technology as a viable career pathway.

FCPS has invested resources in PBL and has a team working with a set of schools to promote this teaching technique. In conjunction with this, a PBL unit is in development for all eighth grade science students to cover energy conservation. This PBL was piloted at one middle school this fall. The eighth grade students presented their work to all the seventh graders so the entire school is involved. Several groups researched LED bulbs. They are now working with our energy management group to set up a test of LED bulbs at their school to make recommendations for district-wide bulb purchasing.

### **Development and Application of Civic Knowledge and Skills**

For PreK-6 students, FCPS is focused on nature-based activities and action projects on school grounds so students become familiar with local ecosystems. As students reach middle and high school, their work expands to the community level with action projects and research that reach beyond the schoolyard and across the Chesapeake Bay watershed. High school students are taught to look at the local and global impact of issues they are studying and are engaging in more complex action projects. Environmental education subject material vertically integrates as action projects change through grade levels. For example, fourth graders study ecosystems, seventh

graders look at ecosystems in more detail as they study the Chesapeake Bay, and ninth graders look at ecosystem functions and explore global concepts. Each semester, students from GMU complete service learning projects or internships with schools throughout FCPS, where they support students at all grade levels engaged in environmental education and projects.

In many grade levels, students are asked to analyze human impacts on the environment. In eighth grade civics, there are specific standards for students to participate in community service related to environmental stewardship such as analyzing the state level protection of the Chesapeake Bay, US government development of environmental protection policies, and the role of the EPA.

A group of Get2Green principals meets twice per year to collaborate and compare notes on what is happening at their schools, strategize ways to increase our environmental stewardship activities, and act as an advisory board for Instructional Services and Facilities Management in developing procedures to promote these activities at schools. They meet with senior school officials to promote this work across the district and mentor other principals interested in getting teachers engaged in these efforts or in starting the Eco-Schools program at their school.

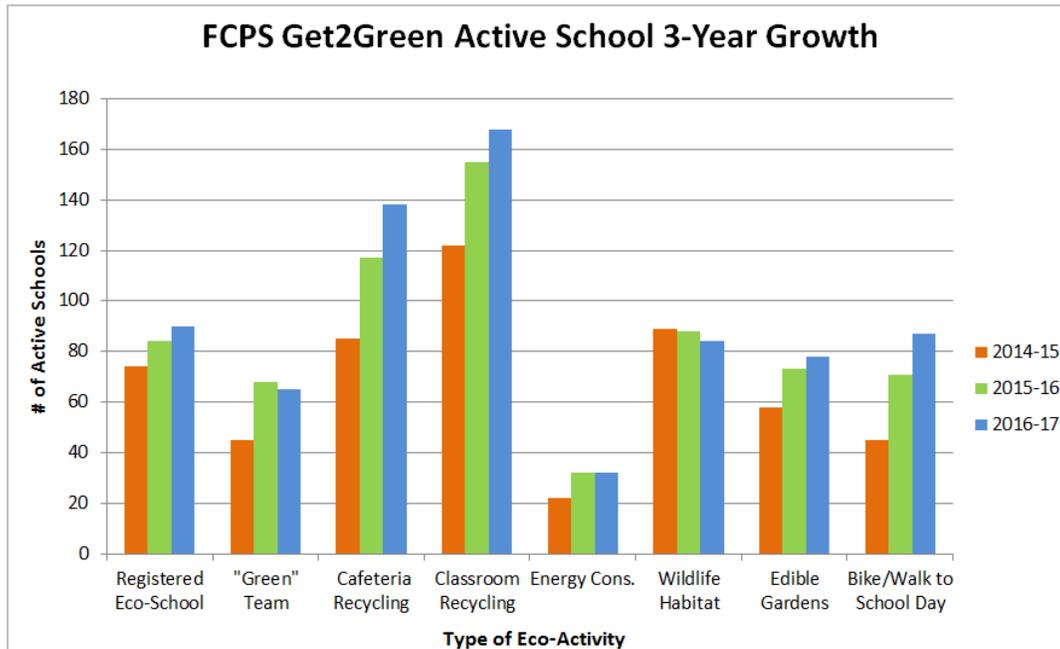
With student projects changing the school grounds, recycling procedures, energy management, etc., Facilities staff has to be involved in fostering this student engagement. Get2Green is constantly working to improve procedures as instructional practices change or expand to promote the work of students and teachers. The new Get2Green website is a joint project between Facilities and Instructional Services and will continue to be expanded to be a “one-stop” shop for environmental stewardship information.

An interdepartmental Sustainability Team was formed and meets regularly to discuss new ideas to increase our district-wide sustainability efforts and to coordinate to make these efforts run smoothly. For example, the Food and Nutrition department just created a polystyrene-free cafeteria. With changes to disposable cafeteria dishes, the district’s recycling procedures also changed. Facilities and Maintenance staff, custodians, teachers, and eco-teams are being trained in those new procedures, and the departments worked together to develop informational signs to distribute to schools. There is also a sustainability stakeholder group that meets biannually to support the Sustainability Team and give input for new and ongoing sustainability efforts. There are about 15 outside organizations, six teachers, and six high school students in this group.

One of the most significant achievements of the Sustainability Team is the creation of a Sustainability Handbook outlining current efforts on environmental stewardship and new strategic goals that align with the goals in the FCPS Strategic Plan. The Sustainability Team’s strategic goals support efforts in student success and resource stewardship. Goals to support student success focus on integration of the environment as a topic in existing curriculum and content areas, as well as increasing participation in the Eco-Schools program. The district-wide resource stewardship goal is supported by the Sustainability Team’s goals to have polystyrene-free cafeterias, improve energy conservation and recycling by publicly providing data on the Get2Green website, and develop a sustainable landscaping plan. While the stage of implementation for each goal varies, progress has been successful to date and all goals should be nearly or fully implemented within two years.

The success of our programs is being measured in several ways. In 2013, Get2Green began conducting an annual survey of all schools to identify the environmental stewardship areas in

which they are engaging. There has been considerable growth over the past three years as illustrated by the graph below. The survey data shows that there are 150 schools engaged in some sort of environmental stewardship activity. Knowing the levels of activity and interest in school-based stewardship initiatives has helped Get2Green focus resources and professional development on areas of greatest demand. The data collected has also helped identify areas for improvement, such as the need for a strategy to keep school-based stewardship initiatives active as teachers and administrators leading a school's work retire or change schools.



Get2Green's success can also be tracked through monetary savings in energy conservation, pounds of recycling, and acres of wildlife habitat. Energy and recycling data is collected from billing information and provided publicly on the Get2Green website. Get2Green also developed a biodiversity survey schools can use to measure biodiversity on school grounds, with the goal of using the data to measure the impact of school efforts to enhance wildlife habitat over time.

As the district expands its work to promote Portrait of a Graduate skills, teachers are using a set of rubrics to measure student progress in learning these 21st century skills. Get2Green work provides students opportunities to develop these Portrait of a Graduate skills through valuable hands-on projects. In addition, FCPS is beginning to work with a professor at GMU on a study to measure student "joy and wonder" around learning science and will be talking about how this can be used to measure success in environmental education. The most important outcome of successful district-wide stewardship efforts is not quantifiable – that students graduate appreciating the difference their actions can make and feeling empowered to positively influence their community and the planet.