



2014-2015 School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. In no case is a private school required to make any certification with regard to the public school district in which it is located.

- 1. The school has some configuration that includes grades Pre-K-12.
2. The school has been evaluated and selected from among schools 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.
3. Neither the nominated public school nor its public school district is refusing 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.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole 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.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. 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 public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school 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 2014-2015

Charter Title I Magnet Private Independent

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

Official School Name: Coles Elementary School (As it should appear on an award)

Official School Name Mailing Address: 7405 Hoadly Road; Manassas, VA 20112 (If address is P.O. Box, also include street address.)

County: Prince William County Public Schools State School Code Number *:0750660 (NCES School ID: 510313001290)

Telephone: 703-791-3141 Fax: 703-791-4761

Web site/URL: http://coleses.schools.pwcs.edu E-mail: forgaske@pwcs.edu

*Private Schools: If the information requested is not applicable, write N/A in the space

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

(Principal's Signature) Kathryn Forgas Date: 1/23/15

Name of Superintendent: Dr. Steven L. Walts (Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in official records)

District Name: Prince William County Public Schools

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



Rae Ed Darlington

Date: 1/23/15

(Deputy Superintendent's Signature – Designated Signer)

Nominating Authority's Certifications

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

1. The school has some configuration that includes grades Pre-K-12.
2. The school 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 and sustainability education.
3. The school 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. Steven R. 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.

[Signature] Date: 1/29/16

(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent "snapshot" that describes how your school is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars and nine Elements. Then, include documentation and concrete examples for work in every Pillar and Element.

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 according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: February 28, 2015

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 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

Include below a concise summary of how your school is making progress in its efforts to meet the three goals (pillars) of the USED Green Ribbon Schools Program. In the last sentences of this abstract, please provide a summary of any monetary savings that have been realized because of your school's "green" efficiencies.

Coles serves 500 students from 32 countries speaking 19 languages with two center based programs (hearing impaired and emotional disabilities). Creating environmental focused learning, we partnered with Dominion Power Resources, Prince William Education Foundation, National Gardening Association, Butterfly Association of Northern Virginia, Wild Ones, Merrifield Gardening Center, Parsons Farms, Boy Scouts, and the Parent Teacher Association to create nine school gardens including a certified and registered Monarch Waystation, six organic vegetables, fruit and herb gardens, a shade, and sensory garden. Many students and community members participate in planting and maintaining the gardens. Students research to raise hunger awareness and how to increase community engagement. Utilizing 4-H resources, students grew vegetable seedlings which were sent home with the oldest sibling in each family with directions on how to maintain a container garden. Students engage in outdoor, hand-on, project based learning including dissecting flowers, researching effects of different soils on seeds, native butterflies in Virginia, and raising Monarchs. Students are learning about watersheds, stream habitats and the importance of water resources through "Trout in the Classroom" project. Fifth grade students will be releasing their baby trout when they reach proper maturity into a stream designated by the department of Wildlife and Fisheries as part of the state's management practice of controlled harvestable fishes. Teachers' continuing education included Project Learning Tree's extensive outdoor classroom training, Problem Based Learning from George Mason University as part of James Madison University's VISTA Grant and Children's Engineer Training. Environmental and STEAM education has been integrated throughout daily instruction in all content areas. Health and Wellness Team designed an outdoor fitness trail to extend outdoor learning which is used daily by students as part of their morning routine before entering the school. During the winter, the fitness trail concept is brought indoors through the use of our quiet fitness trail. Posted outside the bathrooms are notebooks which contain exercises students do while waiting in line with their class. Three to five minute dances, videotaped by the PE teacher and located on the school server, as "brain breaks" throughout the day. "Fitness and Literacy Evening" showcases the connection between health and literacy for the community through phonemic themed gross motor, reading to Buck, a therapy dog, and tour of school gardens. Students choose portion controlled meals based on the ChooseMyPlate.gov program. SCA and Environmental Club Members collaborated to decrease our energy consumption. As a result, we have "No Paper Days" (no paper based instruction/activities) throughout the year, lights off Friday (dine with daylight and not lights) and student monitoring of the recycling of ink cartridges, eyeglasses, paper, plastic, and clothing. Students use 375 gallons of recycled water collected in rain barrels to hand water the gardens. Through these activities, we have saved a great amount in utility costs and with recycling efforts. In conclusion, our students are learning skills which prepare them to be productive members of the 21st century and to live in harmony with nature on a daily basis.

CROSSCUTTING QUESTIONS

1. (CcQ1) Is your school participating in a local, state, or national school program that asks you to benchmark progress in some fashion in any or all of the Goals (Pillars)? Yes No

Program Names (s) and level(s) achieved:

Healthy Schools Initiative, Virginia Naturally Program (3 years), Project WILD, Trout in the Classroom, Wild Ones, National Gardening Association, Project Learning Tree, Energy Star, Green Schools, Journey North

2. (CcQ2) Has your school, staff or student body received any awards for facilities, health or environment? Yes No Award name(s) and year(s) :

Virginia Naturally Award 2012- present, National Wildlife Federation Certified Wildlife Habitat, Certified Butterfly Garden, Registered Monarch Waystation, Energy Star Certification

GOAL AREA 1: Reduce Environmental Impact and Costs

Element 1A: Reduced or Eliminated Greenhouse Gas (GHG) Emissions

3. (1A1) Can your school demonstrate a reduction in greenhouse gas emissions?

Yes No Percentage Reduction 30% Time period: from July 2012 to August 2014

Initial GHG emissions rate (MT eCO₂/person) 543.05 July 2011-June 2012

Final GHG emissions rate (MT eCO₂/person) 376.38 July 2013-June 2014

Offsets: If your school offsets GHG emissions from building energy use, please explain any offsets used.

How did you calculate the reduction? Using EnergyCAP Software

4. (1A2) Does your school track resource use in EPA ENERGY STAR Portfolio Manager? Yes No

If yes, what is your score? 81 If score is above a 75, have you applied for and received ENERGY STAR certification? Yes No Year: 2014

5. (1A3) Has your school reduced its total non-transportation energy use from an initial baseline?

Yes No

Current energy usage (kBTU/student/year) 8360

Current energy usage (kBTU/sq. ft./year) 74.8

Percentage reduction: 21.7% Time period (mm/yyyy-mm/yyyy) 07/2013 to 06/2014

How did you document this reduction? Using EnergyCAP Software

6. (1A4) What percentage of your energy consumption is derived from:

On-site energy generation (e.g., solar, wind, waste-to-energy) 0% Type _____

Purchased renewable energy 0% Type _____

Participation in USDA *Fuel for Schools*, USED *Wind for Schools*, or other federal or state school energy program: Yes No Program Name _____

7. (1A5) In what year was your school originally constructed? 1969

What is the total building area of your school? 55787 sq. feet Percentage of the building area that meets green building certification 0% Certification (e.g., LEED) 0 Level _____

8. (1A6) Has your school added and/or renovated buildings in the past ten years? Yes No

New Construction: Certification Yes No Type (e.g., LEED) _____ Level _____

Total new construction area _____ Percentage that meets green building certification _____

Renovated Building(s): Certification Yes No Type (e.g., LEED) _____ Level _____

Total renovated area 55,787 Percentage that meets green building certification 0%

9. (1A7) Has your school implemented the Facility Energy Assessment Matrix within EPA's *Guidelines for Energy Management*? Yes No

Does your school have an energy- and water-efficient product purchasing and procurement policy in place? Yes No

Has your school/division made any specific efforts to utilize furnishings, furniture, appliances, and building materials that have minimum production/transportation impact on the environment? Yes No Please describe:

They try to purchase Energy Star rated appliances. Also, retrofit plumbing fixtures with energy efficient water saving features.

Please describe any other indicators of the applicant's progress towards elimination of GHG emissions and building impact. Include metrics if available.

Coles has reduced its time of day HVAC schedules from baseline year of July 2011- June 2012. Also, the school turns off and unplugs devices and turns off lights when not in use. Weekly cafeteria "lights off Fridays" assist reducing the use of electricity.

Element 1B: Improved Water Quality, Efficiency, and Conservation

10. (1B1) Can you demonstrate a reduction in your school's total water consumption from an initial baseline?

Average baseline water use (gallons per occupant) 1202 gal/person/per year (July 2011- June 2012)

Current water use (gallons per occupant) 1060 gal/person/per year (July 2013-June 2014)

Percentage reduction in domestic water use 11.8% 56

Percentage reduction in irrigation water use _____ N/A (If irrigation system not in place.)

Time period measured (mm/yyyy - mm/yyyy) 07/2011 to 08/2014

How did you document this reduction (e.g., ENERGY STAR Portfolio Manager, utility bills, school division reports)? EnergyCAP software

11. (1B2) What percentage of your school's landscaping is considered water-efficient and/or regionally appropriate? 100 % Describe the type and location of plantings.

The plantings are selected for their drought resistance so that water usage is kept to a minimum. Similarly, the plantings are selected because of their disease resistance and hardiness in this region. Native plants are located adjacent to the school such as: Rudbeckia Hirta, Aster Novae-Angliae, Eupatorium Corlestinum, Coreopsis Tripteris.

12. (1B3) Describe any alternate water sources used for irrigation.

Students created a drip irrigation system for our gardens using recycled 2 liter soda bottles. A rain barrel collects water which is used to irrigate our vegetable gardens and resupply the aquatic garden. Downspouts drain to graveled areas around the gardens allowing storm water to be reabsorbed.

Native plants which have adapted to Virginia's climate and require no irrigation are used for entrance landscaping and outdoor classroom areas. Outside faucets are secured to avoid unauthorized water use.

13. (1B4) Describe any efforts to reduce storm-water run-off and/or reduce impermeable surfaces.

Soil nutrient levels are tested, so the landscape and turf have the nutrients needed. A dense and vigorously growing turf and landscape discourages storm runoff. Downspouts connected to three trailers feed into our naturalized butterfly rain garden. Native plants, mulch, gravel and grasses planted around storm drains reduce water waste.

14. (1B5) The school's drinking water comes from:

Municipal water source Well on school property Other Briefly describe. _____

Describe how the school's water source is protected from potential contaminants including lead.

Prince William Service Authority routinely tests for contaminants such as lead, coliform bacteria, and copper to ensure they are within EPA levels. If the level of lead is above EPA levels, then the school's Environmental Department will replace fixtures as needed.

15. (1B6) Describe how the school grounds are devoted to environmentally and ecologically beneficial uses such as providing habitat for wildlife or preventing erosion.

We received Certified Wildlife Habitat (National Wildlife Federation). Student's plant and care for six vegetable gardens, a sensory, and shade garden. Our Certified Butterfly Garden is also a Registered Monarch Waystation, along with aquatic features with plants and fish. We received the Virginia Naturally Award (three years). Students planted 100 White Oak seedlings through 4-H support to combat soil erosion. We utilize a composter to fertilize our gardens and facilitate student learning.

Element 1C: Reduced Waste Production

16. (1C1) What percentage of your school's total office/classroom paper content is postconsumer material, fiber from forests certified as responsibly managed, and/or chlorine-free? 100%

How was this measured and which, if any standard did you use?

The paper we purchase comes from a certified fiber sourcing from a sustainable forestry initiative. It integrates the perpetual growing and harvesting of trees with the preservation of wildlife plants, soil, and water quality.

17. (1C2) What percentage of waste is diverted from the landfill or incinerator due to reduction, composting, and/or recycling? Complete all the calculations below.

A. Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected) 128 - One 8 cubic yd. container X 4 pickups a week X 4 weeks. No information for how full when emptied

B. Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected) 32 - One 8 cubic yd. container X 1 pickup a week X 4 week. No information for how full when emptied

C. Monthly compostable materials volume(s) in cubic yards (food scrap/food soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected) we have recently begun composting and are collecting this data

Recycling Rate = $(B + C) \div (A + B + C) \times 100$ 32/160= 20%

Monthly waste generated per person = $(A/\text{number of students and staff members})$ 128/556=0.23

18. (1C3) List the types and amounts of hazardous waste generated at your school.

Flammable liquids <u>0</u> <u>Gasoline stored in an outside shed, used for snow blowers and landscaping</u>	Corrosive liquids <u>0</u>	Toxics <u>0</u>	Mercury <u>0</u>
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Other Hazardous Waste: 0

How is this measured? NA

How is hazardous waste disposal tracked? NA

19. (1C4) Describe other measures taken to reduce solid waste and eliminate hazardous waste.

- Recycled 3.13 lbs. ink cartridges, 268.62 lbs. toners, aluminum, plastic, batteries

- Regular school wide “No Paper Days”
- Paper and eyeglass and outdated computer parts recycling bins
- Auto phone dialer announcements to parents
- E-mailed or online newsletters, announcements.
- Notifications on outdoor school sign.
- Concentrated cleaning products mean fewer dispenser bottles.

20. (1C5) Which, if any, green custodial standard is used by your school? _____

What percentage of all cleaning products in use is third-party certified-green? 10%

What specific third-party certified-green cleaning product standard does your school use? They are "Green Sealed Certified".

Element 1D: Use of Alternative Transportation

21. (1D1) What percentage of students travel to/from school by:

Walking/biking 0% (no walkers allowed due to location of school) Carpooling (3+ students in a car)
_____ % Riding the school bus 75%

The school does not use school buses. Describe how this information is collected and calculated.
Parents are surveyed each year as to how their child will be traveling to/from school (either the school provided child care, a private daycare, bus, or parent provided).

22. (1D2) Has your school implemented:

A well-publicized, no-idling policy that applies to all vehicles (including school buses)? Yes No

Designated carpool parking stalls? Yes No

Vehicle loading/unloading areas at least 25 feet from buildings air intakes, doors and windows? Yes No

Safe Pedestrian Routes to school or Safe Routes to School? Yes No If so, describe activities in your Safe Routes program or plan.

Our students do not walk to school due to school location.

23. (1D3) Describe how your school transportation use is efficient and has reduced its environmental impact.

“No idling policy for cars and buses” We have limited idling to 5 minutes. Buses don’t start until all students have boarded. Our school district has bell times to make efficient use of our buses and evaluated routes so buses reduce the length of trips and amount of fuel used.

24. (1D4) Please describe other accomplishments that have been made in reducing/eliminating negative environmental impact, focusing on innovative or unique practices and partnerships.

Students pick up trash around the school grounds. Organic gardening is practiced. Recycled rain to hand water

the gardens. School wide signs depict step by step instructions for hand washing so water is conserved. Our Sustainability Coordinator on staff who helps us maintain energy saving behaviors. We follow a holiday schedule for reducing energy and cutting back on heating and cooling. Lights out lunch is held weekly and paperless days are held quarterly. Towels, blankets and newspapers are collected and donated to the animal shelter. "Gently read" books are collected and used in a school wide book swap library.

GOAL AREA 2: Improve the Health and Wellness of Students and Staff

Element 2A: An Integrated School Environmental Health Program

25. (2A1) Does your school have an integrated pest management plan in effect? Yes No

What is the volume of your annual pesticide use (gal/student/year)?

Describe efforts to reduce pesticide use and your pesticide-use policies, including the IPM/green certifications your school has earned, routine inspections, pest identification, monitoring, record-keeping, etc.

Pest Control Technicians check on school quarterly and document efforts in IPM binders in the Kitchen or Front Office. Technicians employ strategies such as removing what attracts pests, trapping, baiting, and removal. Custodians are to ensure there is a high standard of cleanliness to deter pests. Pesticides such as tremor, Talon G, Termidor, Dupont Bait stations, or Skykick are used as a last resort.

26. (2A2) Contaminant Controls

Mercury: Has the school identified and properly removed all sources of elemental mercury and prohibits its purchase and use in the school? Yes No Please explain if "No." _____

Carbon Monoxide (CO): The school does not have any fuel burning combustion appliances. Yes No

If your school has combustion appliances, does your school annually inspect these appliances to ensure no release of carbon monoxide? Yes No By whom? The Office of Facility Services checks all appliances for correct operation.

Are CO alarms installed that meet national fire code requirements? Yes No (will be installed by January 15, 2015)

Radon: Has your school tested all frequently occupied rooms that are at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L OR your school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L? Yes No

Please explain if "No." _____

Chromated Copper Arsenate (CCA): Has your school identified any wood playground or other structures that contain chromate copper arsenate and has eliminated student and staff exposure to these materials?

Yes No Please explain if "No." _____

Exhausting Airborne Contaminants: Has your school installed local exhaust systems for major airborne contaminant sources as appropriate? Yes No This includes:

Dust collection systems Yes No N/A

Chemical storage rooms Yes No N/A

N/A

Copy/printing facilities Yes No N/A (no

Fume hoods in science labs Yes No N/A

printing facilities in the school)

Secondhand Tobacco Smoke: Does your school prohibit smoking on campus and in public school buses?

Yes No

27. (2A3) Ventilation

Describe your school's practices and schedules for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly.

Filters are inspected and changed around every 90 days. Each year there is a preventative maintenance (PM) schedule to be completed by the division HVAC department: All in-line fans, classroom units, hallways units, outdoor air dampers, exhaust fans, boiler equipment, and EMCS programs are checked on a regular PM schedule.

Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards.

HVAC equipment is programmed to have outdoor dampers open at the minimum requirement during occupancy to bring in fresh air per ASHRAE standards. The dampers will open wider if a Carbon Dioxide sensor is in alarm or if the Enthalpy is low to bring in more air so mechanical cooling is not needed. Equipment is checked under a PM schedule and if a unit fails/breaks an HVAC tech is deployed.

28. (2A4) Asthma Control Does your school have an asthma management program in place consistent with or similar to the National Asthma Education and Prevention Program's (NAEPP) *Asthma Friendly Schools Guidelines*? Yes No

Describe actions your school takes to prevent exposure to asthma triggers in and around the school.

Our school is smoke-free. The ventilation systems are properly maintained. Perfumes and room deodorizers are discouraged. Animals are not permitted in classrooms. Identified students have asthma plans listed with the nurse and staff. Asthma medication for students is kept in the clinic. The staff is trained in asthma triggers, characteristics of asthma attacks and emergency procedures. The nurse sends the staff daily notifications of pollen count and asthma triggers. Students who are triggered by cold, have alternative plans developed with the teacher, student, nurse, and parent.

Students, as early as Kindergarten, are educated by the nurse on understanding their Asthma.

29. (2A5) Indoor Air Quality Describe other steps your school takes to protect indoor environmental quality such as implementing EPA's *Indoor Air Quality Tools for Schools* and/or conducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action.

Our school has a Wellness Team with representatives from all grade levels, the school Nurse, Cafeteria manager, Custodian, parent representative, and an administrator. This team meets monthly to discuss any safety concerns and to develop an action plan to address those concerns.

Prince William County School System has an environmental team which responds to Indoor Air Quality (IAQ) issues. The team is comprised of an Industrial Hygienist, Professional Engineer and environmental Project Managers who have strong background/experience in building systems to identify, diagnose and eliminate IAQ issues.

Team members have attended that EPA IAQ Tools for Schools program and training. Methodologies used to conduct baseline surveys include procedures outlined in the Tools for Schools document. In addition the team has the capability of implementing more comprehensive surveys and testing methods to assess indoor air quality as required or dictated by conditions.

Currently, there are no annual or routine inspections. If there is a concern by a school staff, members or student member, then the environmental team is notified. The team will perform tests and route a work order to the necessary department to resolve the issue. Once work is completed the team will follow up to make sure everything is ok.

30. (2A6) Moisture Control

Are all structures visually inspected on a regular basis and free of mold, moisture, and water leakage?

Yes No

Is proper indoor relative humidity maintained below 60%? Yes No

Are moisture resistant materials/protective systems installed (e.g., flooring, tub/shower, backing, and piping)?

Yes No

Describe the actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly clean up mold or remove moldy materials when it is found.

Energy Management runs HVAC in the building on a dehumidification cycle and routinely check the building to ensure humidity is below 60%, if it is not, HVAC is contacted to check equipment. If mold is found, custodians clean the area with solution and Environmental Services is contacted for further remediation.

31. (2A7) Chemical Management Does your school have a chemical management program in place?

Describe how your school controls and manages chemicals routinely used in the school to minimize student and staff exposure.

All cleaning chemicals utilized in PWCS are approved for use by OFS. No other cleaning chemicals are allowed to be used in schools.

All cleaning chemicals located in PWCS sites must be kept locked in shipping and receiving areas and all custodial closets where stored.

All chemicals are stored in their original containers. If put into a secondary container, they are labeled utilizing a Hazardous Material Identification System (HMIS) stickers that are filled out using the Safety Data Sheet (SDS) supplied by manufacture.

All PWCS custodial personnel are trained on proper handling and usage of cleaning chemicals upon hiring.

This training is provided prior to the custodian being assigned to a school.

All cleaning chemicals utilized in PWCS are EPA approved.

Element 2B: Nutrition and Fitness

32. (2B1) Has your school submitted an application for:

A) the USDA's HealthierUS School Challenge? Yes No

B) the Governor's Nutrition and Physical Activity Awards Program? Yes No

If "Yes," describe any award level earned, the year(s), and any other pertinent information.

We have earned the Gold Award of Distinction for both the USDA Healthier US School Challenge and the Governor's Nutrition and Physical Activity Awards Program. Additionally, Prince William County is a top rated school system in regards to being leading edge with it comes to the nutrition of our students. Over the past 3 years, our cafeteria partnered with Portwood Gardens in Dayton, Virginia to serve locally grown, hydroponic, bibb lettuce. The freshly harvested dark green, leafy lettuce provided more lutein, beta-carotene, potassium, iron and calcium than regular iceberg lettuce, without the stronger taste of some other dark greens. Over the past two years we also brought in a large variety of other local produce. This September, lettuce, as well as locally grown cantaloupe, corn, cucumbers, nectarines, peppers, squash, tomatoes and watermelon have been added to the products from Farm to School. In October and November, plans were made to obtain Virginia apples, broccoli, fall squash and sweet potatoes. In the spring, we anticipate serving local blackberries, blueberries, sugar snap peas, raspberries, cherries and strawberries.

Incorporating local products into our menus gives our students the opportunity to enjoy nutritious fresh fruits and vegetables, while learning about the seasonality of foods and how foods are grown.

33. (2B2) Does your school participate in a "Farm to School" program to use local, fresh food?

Yes No If "Yes," explain.

We have a "Farm to School Program" as we purchase "Virginia Grown Produce" through our Produce Vendor, Lovings Food. Menus feature seasonally grown "Virginia Foods." The cafeteria has posters featuring the Virginia Farmers who grew some of our food. You can see copies of those on the website.

34. (2B3) Does your school have an on-site food garden? Yes No

If "Yes," does the garden supply food for school students in the cafeteria, a cooking or garden class, or to the community? Yes No If "Yes," please explain.

We have six organic vegetable, fruit and herb gardens. Due to regulations, we do not use the food in our cafeteria. Students see how vegetables are grown, taste different foods they harvest and take fresh vegetables home. Our gardens supply fresh vegetables for the homeless shelter and local needy families.

35. (2B4) What percentage of food purchased by your school is certified as "environmentally preferable?" 15% Please briefly explain the type of foods purchased and how this is done.

About 15% of the dollar volume of what we purchase is from Virginia. We cannot purchase foods that have been grown in a pesticide rich organization and we operate from a list of approved vendors from our county. We are presently working on a project with a group called School Food Focus to find a source of antibiotic free chicken. But it will be a several year process.

36. (2B5) What percentage of students over the past year spent at least 120 minutes of school-supervised physical education per week? 100% Describe how this is measured and monitored. Please briefly explain the type of foods purchased and how this is done.

Our students participate in 15 minutes daily recess and 45 minutes physical education every three days. Students in grades 1-5 participate once a week in our morning Fitness Trail which occurs before the first bell.

This is supervised and coordinated by the PE Teacher and staff.

37. (2B6) What percentage of school-supervised physical education is spent outdoors? 30% Describe how this is measured and monitored.

Outdoor Physical Education is based on our Pacing Guide and Curriculum, and with weather cooperation. Grades K-5 will typically have outdoor PE during the months of September, October, April, May, and June.

Students in grades K-5 participate in a Fitness Trail once a week before school.

38. (2B7) What percentage of your school's current student body has participated in EPA's Sunwise Program or an equivalent program regarding UV protection and skin health? 100% Describe how this is measured and monitored.

Our PE Curriculum does have a UV and Sun Safety Unit that is typically taught during the May-June months to students in grades K-5. Students are educated on the effects of sun on their skin, and how to protect their skin by applying sunscreen and by wearing protective clothing. When students present to the clinic with sun related burns, the nurse educates them on the long term damage of skin of sunburns, and reinforces the need for protection, even on cloudy days.

39. (2B8) Describe the type of outdoor education, exercise, and recreation that is available to your students during and after school.

Students in grades K-5 participate in a Fitness Trail once a week before school. Students in grades 2-5 may participate in a variety of clubs that meet after school, such as Fitness Club, Karate Club, Step Team, Kids Care Club, Environmental Club, American Sign Language Club, Robotics, and Drama Club. Students also participate in fitness dances and brain breaks in their classroom via a video created by the PE teacher. Students also participate in exercise activities as classrooms are waiting for students to use the hallway bathrooms through our Indoor Fitness Trail binders strategically placed by each school wide bathroom.

40. (2B9) Are health measures integrated into school assessments and reported to the community?

Yes No If "Yes," please describe how this occurs.

Students are tested in 4 areas of fitness that comprise the FitnessGram Assessment three times per year. Scores are tabulated and sent to the State and Central Office. Scores are given to parents and they are encouraged to help their child reach goals throughout the school year.

41. (2B10) Does the school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues? Yes No

A) Describe the health-related initiatives or approaches used by the school including:

- partnering with postsecondary institutions, businesses, nonprofit organizations, or community groups to support student health and/or safety
- using a school nurse and/or a school-based health center
- CES combines Olweus Bully Prevention Program and ROADY program to promote positive school

climate. Students earn ROADY tickets for positive behaviors and drawings are held.

- Peer Mediation Program is helping younger students to solve relational issues and to promote character traits during morning announcements. Mix-It Up day team building activities are implemented at least quarterly.
- Through grants and community support, a fitness trail was installed and used daily, weather permitting.
- Water bottles are encouraged in classrooms to stay hydrated.
- The school nurse coordinates with the Lions Club for vision and hearing screenings as well as provide glasses for those in need. The school nurse and counselor coordinates with liaison from NOVA Health to provide health care for under insured families. Comprehensive Child Study is utilized to provide support for families.
- We partner with our local health care providers such as Next Care, Sentara, Britto Orthodontics and others to provide our students with their health care needs on all levels - from school entrance physicals, to dental needs, to emergency care needs. We also partner with the INOVAs Partnership for Healthier Kids, funded by the VA Health Care Foundation to help connect our families to VAs FAMIS program (Medicaid and CHIP).
- We have partnered with our neighboring school, Benton Middle School to organize charitable 5K / 1 mile runs. The charitable events include running for Joshua's Hope - a charity for those males with Duchennes Muscular Dystrophy, as well as simple seasonal "fun runs" to promote exercise and health.
- A nurse is assigned to this school for 4 days out of every week. She provides medical care for students and staff, and also provides education on many health care related subjects on an as needed basis

B) Describe any other practices regarding a) the school's built and natural environment and b) the fitness and nutrition programs that are employed to promote good nutrition, physical activity, and overall student and staff health.

Hand-washing signs and antibacterial dispensers are located throughout the school. Hand dryers and toilet flushers are automatic. Umbrellas over picnic tables, a pergola over the amphitheater and 100 trees students planted in partnership with 4H offer shade. Students use a wooded trail to walk to an eco-park. Outdoor and indoor fitness trail exercises are used daily. Intercom interruptions are limited. Teachers carry emergency crisis bags holding student health plans. The school nurse trains staff on concussions, the use of an EPI Pen, signs to look for in the event of a seizure, and implementation of health treatment plans.

GOAL AREA 3: Provide Effective Environmental and Sustainability Education Incorporating STEM, Civic Skills, and Green Career Pathways

Element 3A: Interdisciplinary Learning about the Key Relationships among Dynamic Environmental, Energy, and Human Systems

42. (3A1) Describe how your school has a specific emphasis on environmental or sustainability literacy. The Certified Butterfly Garden is also a Registered Monarch Waystation and serves as a habitat for Ruby-throated Hummingbirds and Goldfinches. Students learn about host plants, pollinators, predators and the life cycle of butterflies The six sustainable raised bed organic gardens are planted, maintained and harvested by grade levels. In 2011 vegetables represented by the diverse cultures in each grade level were planted. Students

researched the origin and benefit of the crops. In 2012, native Virginia crops were planted. Corn, beans and squash were planted in a variety of soils. Successes and failures were discussed and conclusions drawn. When squash bugs attacked the gardens, students experimented with nontoxic methods to rid the bugs. In 2013, crops represented in grade level literature were planted. Gardens such as “Jack in the Beanstalk,” “Pizza, Pizza Everywhere,” and “Sunflower House” were planted. In 2014, the students planted “rainbow.” Students planned their garden, timing, seed starting, care and maintenance. Students planted red strawberries, orange carrots, yellow squash, green lettuce, blueberries and purple beans. Throughout the year, an inquiry and problem solving approach is used. When a fall harvest is less successful than expected, students learn from their experiences and adjust their spring planting.

43. (3A2) Describe how environmental and sustainability concepts are integrated throughout the curriculum.

Throughout the year, grade levels are involved in Project Learning Tree and National Wildlife Federation lessons. Green Schools and Eco-Schools units lead the energy, water, school site, water, recycling and environmental quality investigations. These lessons and investigations take place inside and outside the classroom, are closely aligned with our essential questions and standards of learning and help our students learn skills that will enable them to reduce their environmental foot print.

Gardening activities are integrated into all areas of the school curriculum. Students plant edible organic gardens, pollinator and butterfly gardens. They follow multi-step directions on seed packets, make seasonal observations and use the gardens as story starters throughout the year. Students research and write individual and class books about plants, insects and pollinators they observe in the gardens. They use math to measure the gardens and science to start seedlings, test the PH of soil, dissect plants and learn about life cycles. History and geography is involved when students observe spring arrive through the Journey North program, research native plants, and study the significance of crops grown in Virginia and other cultures and countries. Students are involved in physical activities as they plant trees to combat soil erosion, till the soil, plant, weed and harvest vegetables. Social issues, responsibilities, laws and moral obligations are explored as students conduct experiments and collect data to make decisions about self-sustaining ecosystems and students harvest vegetables to feed needy families.. Fifth grade students see first-hand how limited our natural resources are and determine the best ways to conserve and preserve our resources as they raise trout through Project Wild.

44. (3A3) Describe students’ proficiency levels for environmental and sustainability concepts in a) school and division assessments and b) any external measures the school uses.

Our students take the state Standards of Learning tests in grades 3, 4 and 5 and scores indicate percentage passing. In 2012-2013 3rd grade scored 85% in Science and in 2013-2014 5th grade scored 81% in science. Our 4th grade scored 81% in Virginia History. 5th grade scored 78% in reading in 2013-14. Our students achieved a 97% physical fitness pass rate for 2013-14. We are a hearing impaired base school with a student body of 38% economically disadvantaged and 24% English Language Learners. School improvement is an ongoing process and we intend to continue to raise scores through comprehensive staff development and concentrated efforts with creative thinking through STEM projects. Students in grades K-5 are assessed according to their STEM learning through rubrics pre-developed or developed by teachers.

45. (3A4) Describe whether/how significant teacher professional development opportunities in environmental and sustainability education are provided for all teachers in your school.

100% of the staff has received professional development through Project Learning Tree. Teachers have attended Project WILD training and shared information with staff. At least one staff member on each grade level has attended a STEAM conference or training and shared the information with staff.

Members of the PWC Cooperative Extension Master Gardening Program provide professional development. We have a Master Gardener on staff who regularly advises us and facilitates the after school Ecology Club. 4-H has provided education and instruction on planting trees to staff members.

A staff member who serves as the Sustainability Coordinator for our school attends district meetings and helps us with our efforts in energy conservation. A staff member serves on the landfill committee, attends community meetings and helps us with our recycling and conservation efforts. This school to landfill connection was instrumental in establishing a walking trail to a new Eco-park.

Several Coles staff have been trained in Problem Based Learning through a VISTA grant by George Mason University and several additional Coles staff have been trained in Children's Engineering through James Madison University. The agreed upon expectation by our staff is that all students will engage in STEAM activities quarterly.

Grade level teachers meet a minimum of twice a week to plan, discuss student progress, create assessments and share evidence of learning. Our school has adopted the Baldrige model of plan-do-study-act to promote continuous improvement and progress in student learning. STEAM activities, environmental project based lessons and outdoor experiences are planned, implemented across the curriculum, evaluated and student work is shared and displayed. Collaboration with experts such as the environmental coordinator of our county, our Science Director, and the state outdoor education director help to reinforce, strengthen and deepen the knowledge of our teachers so lessons are meaningful.

Element 3B: Use of the environment and sustainability to develop STEM content knowledge and thinking skills to prepare graduates for the 21st century technology-driven economy

46. (3B1) For schools serving grades 9-12

What percentage of your eligible graduates last year completed Advanced Placement Environmental Science? N/A %

What percentage of these students scored 3 or better on the Advanced Placement Environmental Science assessment? N/A %

Does the school use other environmental science-related courses and measures instead (e.g., International Baccalaureate - Environmental Systems, 2- and 4-Year IHE dual enrollment, etc.)? N/A

47. (3B2) Describe whether/how your school uses sustainability and the environment as a context for learning science, technology, engineering, and mathematics skills and concepts and how much time is devoted to this practice each week.

45 minutes a day is devoted to activities using the environment and sustainability as context. Deer were eating our gardens so students analyzed a variety of organic methods such as using human hair. They created sound sculptures from recycled pie tins as a humane way to ward off the deer. The desire to provide a food source and preserve natural habitats on school grounds sprang from these discussions and students planted fruit

bearing bushes and trees thus earning us certification as a Schoolyard Wildlife Habitat.

When mud prevented students from playing on the ball field, deforestation, construction and erosion became a problem based activity. Students measured and planted 100 White Oak seedlings every two feet along the perimeter of the ball field.

STEAM skills are used when students observe capillary action of garden plants and colored water. Blueberries and beets from the gardens are used to dye fabric to mimic Native American methods. Potatoes were used to study circuits, batteries and energy and using solar energy, students enjoyed making s'mores

Students buried Styrofoam and cardboard in the gardens in September and dug it up in June. Seeing Styrofoam in pristine condition had a profound impact on our students as they studied biodegradation.

During our STEAM night, families participate in various problem solving and share in what their children do on a daily basis such as designing a "light and sound proof" classroom that will keep the sounds of the bombing at the Quantico Marine base out of the classrooms.

48. (3B3) Describe whether/how your school uses sustainability and the environment as a context for learning green technologies and career pathways.

Fifth grade students take walking field trips to a local eco-park, participate in activities and learn from professionals in the STEM field. They are also leading our "Trout in the Classroom" project to study watersheds and water habitats.

Fourth grade students have visited the EAGLES (Eastern Area Grounds For Learning Environmental Science) center to learn about our local watershed, the animals and environment around the watershed, and how to protect our local watershed.

Kindergarten and first grade students visit farms to learn about agriculture, what farmers use to grow healthy crops and keep crops and animals healthy, harvesting tools, and what farmers do with the crops once they have been harvested.

State Park Rangers give presentations about their experiences in the field and increase interest among students to learn more. Master Gardeners work side by side with students in the gardens, helping to ignite the passion in horticulture and land stewardship positions and teach them how to compost. Professionals such as a meteorologist, Aeronautical Engineer, a Coordinator for LEED Energy Management for PWCS, an Intelligence Analyst, a cyber-security analyst, and HVAC installers also present to groups of students to inspire students to seek out these career opportunities.

Our SCA Representatives and Environmental Club reviewed ways to reduce the use of electric energy, how to recycle various items, and researched wind and solar energy and how to increase awareness in our community.

49. (3B4) Describe how your school's environmental and sustainability education program pays particular attention to systematic STEM practices required for an age-appropriate understanding of natural systems.

Students inquire through hands-on lessons from Project Learning Tree and National Wildlife Federation Eco-schools units. Students learn to ask questions, problem solve, analyze data and draw conclusions. One lesson involved picking and drying strawberries and blueberries using various methods. Students compared the methods to drying methods Native Americans employed. In another lesson, students planted pumpkin seeds in the spring, harvested the fall pumpkins in the following year, dried the seeds and planted those seeds the following spring in different soils to understand the nature of soil. Students were able to observe the pumpkin's life cycle over a year's time.

50. (3B5) Do your students engage in Meaningful Watershed Education Experiences (MWEE) or participate in other meaningful outdoor investigations?

Younger students go on scavenger hunts and search for living and nonliving things. Older students search for animals and insects and categorize them as pollinators, predators, invertebrate, reptiles and birds. Students track the arrival of spring across the United States when red tulips bloom as part of Journey North's program. Students draw, write and photograph the life cycle of butterflies and celebrate their release. Fifth grade students learn the importance of protecting resources by raising trout in the classroom and releasing them in the spring. Students learn that animals sometimes need a helping hand. During a particularly terrible snow storm, students made pine cone bird feeders and hung them in trees around our school grounds. Fourth grade students researched the different waterways in Virginia, visited the E.A.G.L.E.S center and were able to use microscopes to look at pollutants of the Occoquan River, they then researched ways to stop pollution and save the Chesapeake Bay, created PSA (Public Service Announcements) to post on You Tube, and sent the PSAs to the Chesapeake Bay Foundation. Fourth grade students also assisted in labeling storm drains indicating which watershed our water drains into.

Element 3C: Development and Application of Civic Knowledge and Skills

51. (3C1) Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills.

We partner with 4-H, PWC Cooperative Extension and Master Gardeners to offer families evening workshops on composting, growing raised bed gardens and growing lettuce in recyclable containers. We host schoolyard habitat workshops for teachers.

Classrooms regularly schedule clean ups on school grounds and sort recyclable items from trash. Students use discarded items to make art sculptures and sound sticks for the gardens.

Students made hunger awareness announcements, collected food for the homeless shelter and harvested food from our gardens for needy families. Fourth and fifth grade students grew bean and tomato seedlings and sent them home with the oldest child in every school family.

We shared our gardening experiences with the global community through an article and pictures posted on the National Gardening Association.org website.

52. (3C2) Describe whether/how students are encouraged to conduct class or individual, age-appropriate, civic/community engagement projects focused on environmental or sustainability topics. If not in all grades, specify which grade levels and subjects. Describe students' civic/community engagement projects and how they integrate environment and sustainability topics.

Students learn that food is grown and that homelessness and hunger occur in our community. They learn to grow food and share it with needy families. An appreciation of nature is developed as students take responsibility for grade level gardens. Students learn to care for our plants by not picking flowers, leaves or breaking stems. Plants in the sensory garden are carefully touched, smelled and observed. Students learn first-hand how important it is for us to live responsibly alongside nature since it gives us everything we need to live.

Our Environmental Club researched the need to encourage and promote the use of environmentally minded vehicles and they challenged school administrators to place signs in parking lots for SMART cars and/or fuel efficient vehicles.

A group of students in our gifted classroom decided to research how to sustain our food sources even further by learning more about a fruit orchard. They contacted several professionals in the area to learn about space needed, drainage, types of fruits that would do well with the soil on our grounds and climate, etc... They presented information to the principal and district departments like the landscaping and then were tasked with finding information about additional questions/needs.

53. (3C3) Describe whether/how your school partners with local academic, businesses, government, nonprofits, informal community institutions, museums and/or other schools to help advance your school, other schools (particularly schools with lesser capacity in these areas), and/or the community toward meeting goals consistent with those of the Green Ribbon Schools program.

Students and their families participate in healthy initiatives by utilizing the outdoor fitness trail, playground and baseball field. Our literacy night connects reading, exercise and health with information on movement and nutrition. Physical fitness is integrated throughout the day and evening with activities such as our Jump-a-thon, running during our Boosterthon, Jingle Bell Fun Run, and our annual kickball competition between teachers and students.

Earth day involves week long grade level activities such as paper free days, brainstorming ways to protect our environment, planting 100 tree seedlings, making art from trash and inviting family members to participate with students on their morning fitness exercise stations.

The after school Ecology club partnered with Master Gardeners and takes hikes through wooded trails to view salamander breeding ponds.

Our partner, Keep Prince William Beautiful supplies bags and gloves to students to clean litter from our school grounds.

Families participate in an after school running club, learn about proper training, good nutrition and enter running events. Our after school Healthy Coaching club offers staff and community members healthy living advice from a holistic life coach. Participants support each other as they learn about exercise, vitamins nutritional recipes for children with food issues.

54. (3C4) Describe additional indicators or benchmarks (quantified whenever possible) of progress toward the goal of 100% of your school's students being environmentally literate.

We strive for continuous improvement in our environmental performance and energy management. Our staff has made simple changes such as using community refrigerators, networked printers, turning off lights and not having appliances in classrooms in order to reduce the amount of daily energy used. Our daily effective practices of turning off lights, regular energy audits, holiday and weekend schedules for energy consumption, paper less days and student led green teams has helped to bring an awareness of conservation and preservation to our students and school community. Our community outreach to teach families composting and how to grow container gardens has helped us maintain an awareness of how we impact our environment. We changed attitudes through actions of cleaning our school grounds, growing and sharing food, creating and preserving habitats for our pollinators and animals on our school grounds. An extensive library of environmentally themed books and activities integrated throughout the curriculum advance our school's goal towards becoming 100% environmentally literate. Activities such as raising and releasing trout to planting a Three Sisters Garden provide meaningful lasting experiences for our students.

55. (3C5) Describe any other ways that your school integrates core environment, sustainability, STEM, green technology, and civics into curricula to provide effective environmental and sustainability education, highlighting innovative or unique practices and partnerships.

There are many examples of unique practices throughout the school. In memory of a deceased teacher, our students gathered for a tree planting ceremony and students now have a living memorial which will bear pear fruit for many years to come. Students make naturally decomposing seed pots from scrap paper. When the seeds germinate, the pots and seeds can be planted as one unit in the gardens, or taken home to plant. Students sit in the naturally shaded amphitheater and reflect, connect with nature, read books, sketch and observe the environment, or record in science journals on changes in the season.

Another example is a partnership between Coles and the district Food Service Department in purchasing and beginning a composting effort. Student leaders from each class collect the fruit and veggie scraps during lunchtimes to place in our composting machine. This is used as nutrients for our school gardens.

Our Garden Committee wrote to a suggested Master Gardener to ask of native Virginian plants that would attract pollinators. This person (anonymous) donated buckets of native bushes and plants to use in our butterfly garden. A local landscaping company donated tons of soil for the garden. Students planted the plants.