



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: Ms. Gwedette Crummie

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

Official School Name: Crozet Elementary School

(As it should appear on an award)

Official School Name Mailing Address: 1407 Crozet Avenue; Crozet, VA 22932

(If address is P.O. Box, also include street address.)

County: Albemarle State School Code Number *: 0020340 (NCES School ID: 510009000020)

Telephone: (434) 823-4800 Fax: (434) 823-6470

Web site/URL: <http://www2.k12albemarle.org/school/cres/Pages/default.aspx> E-mail: gcrummie@k12albemarle.org

*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.

Ms. Gwedette R. Crummie
(Principal's Signature)

Date: 1/20/2015

Name of Superintendent: Dr. Pamela Moran

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



District Name: Albemarle County Public Schools

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

[Handwritten Signature]
(Superintendent's Signature)

Date: 1-22-15

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.

[Handwritten Signature]
(Nominating Authority's Signature)

1/22/15 Date:

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.

Crozet Elementary is making consistent progress to improve the health and wellness of students and staff, provide effective environmental and sustainability education, and to reduce environmental impact and costs. By achieving E3 status in the Department of Environmental Quality's Virginia Environmental Excellence Program (VEEP) through deployment of an Environmental Management System, Crozet and the Division strive for continual environmental improvement and evaluation. The Division also achieved first place in 2014 Green Schools Challenge hosted by the Virginia School Board Association.

Crozet Elementary works toward reducing environmental impacts and costs on a daily basis. Green efficiencies have resulted from the green cleaning program, which has allowed the school to eliminate a number of cleaners to be replaced by a Green Seal certified multipurpose cleaner. Crozet has realized reduced diesel fuel use by incorporating more efficient buses and Walk & Ride a Bike to School program.

Crozet Elementary composts daily. The waste and recycling costs have been reduced by switching to a mixed waste recovery facility that will achieve approximately 36% recycle rate. Additionally, the mixed waste program eliminates a truck visit from the school each week. Conserving energy through the use of a building automation system and staff & student awareness saves the school a significant amount of money and reduces our impact on the environment.

The school offers many physical features that encourage staff and student wellness and further environmental education. These features include the student created outdoor living science classroom (a state-certified school yard habitat – a converted bio-fill into a Rain Garden Habitat with a Weather Station), nature running trail, butterfly garden, student gardens, outdoor natural amphitheater, natural courtyard with birdfeeders and picnic tables. Teachers use these tools in different ways to engage students in the areas of Science, Technology, Engineering and Math. The Rain Garden Habitat, butterfly garden and student gardens allow students to learn about weather, ecosystems, Virginia native plants and animals, how to grow vegetables and flowers resulting in culinary benefits for students. The nature running trail is used by students, teachers, parents and after-school groups to promote wellness. The outdoor amphitheater is used by teachers to promote outdoor education in a natural environment. Crozet students learn to be environmental stewards connecting and collaborating with the feeder pattern high school, Western Albemarle High School's Environmental Studies program.

While making progress toward the goals of USED's Green Ribbon Schools Program, Crozet Elementary School also reaps financial benefits of approximately \$25,000 in avoided utility costs each year achieved through energy conservation efforts. By diverting additional material from the landfill, Crozet is saving approximately \$6,000 per year on disposal costs.

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 Name(s) and level(s) achieved Energy Star Portfolio Manager

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) achieved (yyyy) Energy Star Label for 2010

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 17.2% Time period: from 7/1/2012 to 6/30/2013

Initial GHG emissions rate (MT eCO₂/person) 1.1

Final GHG emissions rate (MT eCO₂/person) 0.91

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

How did you calculate the reduction? Energy Star – Portfolio Manager Emissions Report

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

If yes, what is your score? 86 If score is above a 75, have you applied for and received ENERGY STAR certification? Yes No Year: 2010

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

Yes No

Current energy usage (kBTU/student/year) 7786

Current energy usage (kBTU/sq. ft./year) 46.4

Percentage reduction: 14.2% Time period (mm/yyyy-mm/yyyy) 01/2007 to 06/2013

How did you document this reduction? Energy Star – Portfolio Manager Energy Report

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

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

Purchased renewable energy 0% Type N/A

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

7. (1A5) In what year was your school originally constructed? 1990

What is the total building area of your school? 57,742 SF Percentage of the building area that meets green building certification 0% Certification (e.g., LEED) N/A Level N/A

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) N/A Level N/A

Total new construction area N/A Percentage that meets green building certification %

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

Total renovated area N/A Percentage that meets green building certification N/A %

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:

Building material purchases should be aligned with the Green Renovations Standard Operating Procedure. The Energy Management Policy specifies that ENERGY STAR labeled appliances and equipment should be purchased when available.

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

Crozet has exhibited a reduction in energy usage from its baseline established by ENERGY STAR. Crozet's score has increased from a baseline rating of 77 to a current rating of 86. Crozet Elementary has also completed another ENERGY STAR site verification to earn the ENERGY STAR Label for 2014. GHG emissions reductions achieved through commercial composting are tracked. Through commercially composting in calendar year 2014, Crozet has avoided approximately 4 metric tons of carbon dioxide production.

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) 1371

Current water use (gallons per occupant) 1064

Percentage reduction in domestic water use 22%

Percentage reduction in irrigation water use Irrigation added for community use baseball field on property in 2012 N/A (If irrigation system not in place.)

Time period measured (mm/yyyy - mm/yyyy) 07/2008-06/2009 to 07/2013 - 06/2014

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

11. (1B2) What percentage of your school's landscaping is considered water-efficient and/or regionally appropriate? 50 % Describe the type and location of plantings.

All trees and plantings near the school perimeter are not irrigated. The baseball field behind the school is irrigated.

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

The baseball field at Crozet Elementary is irrigated from water supplied by the municipality. No alternate water sources are currently used.

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

Impervious areas at Crozet include the parking lots, minimal sidewalks and building roof. All other areas are mulched or planted to minimize the amount of impervious area.

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.

Because Crozet Elementary was constructed in 1990, plumbing fixtures met the lead-free requirements at the time of construction. The Albemarle County Service Authority conducts all required water testing and provides an annual consumer confidence drinking water report.

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

Crozet Elementary has a vegetable garden onsite and an outdoor learning area. The vegetable garden utilizes finished compost from the cafeteria collection to nourish the soil.

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 used at Crozet Elementary is Spectrum Multi-Use paper by Georgia-Pacific. The paper is certified through the Sustainable Forestry Initiative. Paper is ordered by school administration and purchasing records are maintained.

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) 61

B. Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected) 34

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) 2.2

Recycling Rate = $(B + C) \div (A + B + C) \times 100$ 37%

Monthly waste generated per person = $(A/\text{number of students and staff members})$ 0.187 cubic yards

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

Flammable liquids <u>0</u>	Corrosive liquids <u>0</u>	Toxics <u>0</u>	Mercury: <u>Fluorescent bulbs containing mercury are considered universal waste and are recycled. Approximately 100 bulbs are recycled each year from Crozet.</u>
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Other Hazardous Waste: 0

How is this measured? Pickup requests

How is hazardous waste disposal tracked? Through recycling records with AERC for mercury-containing bulbs.

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

Computers are recycled through Computer Recycling of Virginia. Other electronic waste is recycled through a TechnoTrash box at the school.

20. (1C5) Which, if any, green custodial standard is used by your school? Green Seal, Design for the Environment

What percentage of all cleaning products in use is third-party certified-green? 100%

What specific third-party certified-green cleaning product standard does your school use?

Cleaning products must be Green Seal, Green Guard or Environmental Choice certified. Safer Chemical Management Standard Operating Procedure is defined by Albemarle County Public Schools.

Element 1D: Use of Alternative Transportation

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

Walking/biking 10% Carpooling (3+ students in a car) 15% Riding the school bus 75%

The school does not use school buses. Describe how this information is collected and calculated.

This information is collected by arrival/dismissal and parent notes that are documented and recorded daily.

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.

Crozet was awarded a \$100,000 Safe Routes grant to improve sidewalks and pedestrian crosswalk. Our activities consisted of Walk & Bike to School days involving bus and car riders being dropped off about a mile away from school to participate in walking to school.

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

Buses in the rural school areas tend to be well utilized, and the average school bus takes over 30 passenger cars off the road. Additionally, roughly ¼ of our active fleet is model year 2007 or above, which means that it is compliant with the more stringent standards for particulate matter in diesel exhaust that went into effect that year.

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

We have been composting for two years at Crozet Elementary and the impact on the reduction of waste has been dramatic. Our corporate partner is Black Bear Composting. We have gone from producing over five large trash cans of waste at lunch to less than 1. All food is composted along with paper. Cans and other plastics are recycled to further eliminate waste.

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)? 0

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

Integrated pest management was implemented in 2008. The IPM Standard Operating Procedure is included in Appendix B. An IPM Manual is kept in the main office of the school. All label requirements are followed when a pesticide application is required. Notification is provided to opt-in parents at least 24 hours in advance of any required application. Crozet has not had any chemical applications since April 2011.

Past chemical applications are posted on the following site for notification:

<http://www2.k12albemarle.org/dept/osp/building/environmental/Pages/Integrated-Pest-Management.aspx>

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." N/A

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? Building Services Department
Are CO alarms installed that meet national fire code requirements? Yes No

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." N/A

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." None identified – no potential staff exposure

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
Fume hoods in science labs Yes No N/A Copy/printing facilities Yes No N/A

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.

HVAC filters are changed quarterly by the Division's Building Services Department. A work order is issued for preventive maintenance each quarter. Any issues that arise between filter changes are addressed by the HVAC crew.

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.

The Energy Management Technician monitors the air handling units and percentage of outside air delivered to the classrooms at Crozet. Additionally, during ENERGY STAR site verifications the Environmental Manager measures carbon dioxide levels in representative classrooms.

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.

Crozet is smoke-free, ventilation systems are maintained properly, integrated pest management program, avoid school maintenance (painting, spraying pesticides and cutting grass) when school is in session, animals are kept out of the classroom and non-toxic markers are used, and all staff are notified of known asthma diagnosis in students.

The presence of all triggers cannot be controlled, so we try to identify ways to decrease exposure of triggers to individual students identified with asthma by staying indoors when outdoor air pollution, pollen and mold spores are worse than normal and /or pre-medicate those students before their recess time; suggest the use of physical barriers to cold such as scarves in cold weather; always have a “buddy” walk with a student to the clinic having an asthma problem no matter how mild; have an “Asthma Action Plan” or care plan for each student identified with 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.

The Program Manager for Energy, Environment and Sustainability serves as the IAQ Manager. IAQ issues are prevented by maintaining humidity below 60%. Any roof leak or moisture issues is investigated by Building Services staff. If a mold issue is suspected, Air-O-Cell cassettes will be used to test for mold spores. Initial investigations for an IAQ issue will include measuring relative humidity and temperature, scanning for moisture with a thermal imager, and checking the operation of the HVAC system.

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.

The Building Services Department has a crew of carpenters that quickly responds to any leak events. Humidity is controlled by the air handling units. If mold is found, the Environmental Manager contacts a mold abatement contractor for an immediate response. Any abatement work is scheduled when students are not present.

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.

The Division has a Chemical Hygiene Plan in place to address chemical purchasing, chemical inventories, storage and labeling, training, spills, and chemical disposal. The Chemical Hygiene Plan is available at the following link:

<http://www2.k12albemarle.org/dept/osp/building/environmental/Pages/Chemical-Hygiene-Plan.aspx>

Material Safety Data Sheets/Safety Data Sheets are maintained using an online database with MSDSOnline. All custodial and kitchen staff receive in-person hazard communication training, and all teachers receive online hazard communication training.

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. N/A

We plan to participate in the Governor's Nutrition and Physical Activity Awards program.

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

Yes No If "Yes," explain.

Crozet participated in the Virginia Farm to School Week in 2013. Throughout this week, school cafeterias incorporate locally grown food into their menus to encourage healthy eating and to strengthen the ties between schools and local farms. Crozet regularly provides a hummus platter option featuring hummus from the local Farm at Red Hill.

<http://www.vdacs.virginia.gov/marketing/farm.shtml>

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.

The on-site food garden is used as an afterschool garden class. The students are responsible for weeding and watering and tools are made available for student use. The afterschool students work in the garden and harvest their vegetables to make healthy snacks for the afterschool program.

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

Local food is purchased, but a tracking system is not in place with our Child Nutrition program.

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.

This is the required amount of physical education for all students at Crozet. The physical education is built into scheduling and supervised by the PE teachers, Dawn Laine and Andrew Maynard.

37. (2B6) What percentage of school-supervised physical education is spent outdoors? 50% Describe how this is measured and monitored.

The amount of time spent outdoors was estimated by the PE teachers. Weather conditions make additional outdoor physical education challenging.

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? 0% Describe how this is measured and monitored.

N/A

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

During school, students engage in physical education, Go Noodle, Dance & Exercise classroom videos and recess. After-school enrichment and recreation programs including creative play, STEM, film-making, Tennis, Gymnastics, Basketball, Art, Music, Legos & Robotics, Minecraft, Cooking, Chess and running clubs. We have 3 student size Quick Start tennis courts used during and after school. During after hours and the weekends, it is open to the public for students, parents and senior citizens to play tennis.

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

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

Health measures are reported through Virginia's Wellness-Related Fitness Testing Program.

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
- implementing positive school climate programs such as anti-bullying programs, peer counseling, or similar.

Crozet implements positive school climate programs such as Random Acts of Kindness, Character Counts and Olweus Bullying Prevention that entails student activities such as Buddy Walks on the natural running trail, Mix up Day during lunch and RAK it up day of students sharing kind notes to each other.

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.

The Rain Garden Habitat at Crozet designed and created by students is used for science units involving native plants, wildlife and a weather station to monitor and measure elements of weather. Utilizing the

outdoor probe ware, every classroom is able to view and analyze data from the weather station. Our nature running trail at the school is used by students to promote wellness and enjoyment of nature tours. The Butterfly Garden allows for quiet reflection and sketching.

Our cafeteria has offered “Farm to School Week” to promote healthy eating habits among our students. The hummus platter has become a favorite lunch choice in our cafeteria, and the hummus is purchased from a local farm. Cafeteria staff creates student activities that promotes eating healthy – “What is the Mystery Ingredient”. By participating in a farm to school program that allows us to purchase from local farms/farms in Virginia, our children reap the benefits of healthy eating, along with a better appreciation for agriculture in our community.

In addition to offering 120 minutes of physical education each week, our children experience outdoor recess daily (weather permitting) and buddy walks on the natural running trail. Students also have opportunities to participate in clubs ranging from swimming, tennis, gymnastics to a running. Crozet has the Crozet Cruisers dance videos that students create dance videos shown during morning news for students to get up and move in the mornings.

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. Crozet has several gardening areas that are used to create outside learning environments. Our Butterfly Garden is used for reading, sketching and writing, as is our natural running trail. We have out-door planting beds where students grow their own vegetable gardens, and we are currently have an outdoor science classroom – Rain Garden Habitat with a Weather Station. Our students learn to be global stewards for ecological awareness. They planned, designed, build and operated a haven for wildlife and converted a bio fill area into a rain garden habitat. By establishing this rain garden habitat, students see the world as their classroom not confined by the classroom walls. Our life science curriculum for all grade levels K-5 is enhanced, specifically with plant and animal studies and weather units. Our students connect to nature, learn, and garden for wildlife. The students are currently creating nature area field guide and brochure with QR codes to educate the community about the habitat.

Crozet students are taught to honor their natural surroundings. Students are taught to observe at a young age, and this keen eye on nature instills an appreciation for the wonders in our immediate community and beyond.

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

We have several learning areas that capitalize on our natural environment. We have found that when we integrate these areas into student learning, the engagement increases drastically. Students enjoy knowing where they are in relation to our natural world and youngsters are naturally curious. They also bring a natural sense of caring for our environment.

First is our Living Lab outdoor science classroom (Rain Garden Habitat with a Weather Station & Butterfly

Garden). Check out our web site <http://wonderfulwetlands.weebly.com/blog> to get a glimpse of how we integrated environmental sustainability in their learning.

Here is the school-wide Living Lab integrated science curriculum matrix for all grades - <http://tinyurl.com/po8p7sh> with STEM lessons.

We use our natural trail for our school wide running club and buddy walks to build and maintain a strong sense of community. Each grade level has a buddy class. Monthly, we have Be a Buddy Not a Bully walk (students & teachers) on the natural trail to promote being civil and kind to each other.

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.

A primary focus for Albemarle County has been to develop project based learning assessments. Elementary students in Virginia take the state Standards of Learning (SOL) tests in grades 3 and 5; grade 3 students are tested on English, math, history, and science, while grade 5 students are tested on reading, writing, math, history, and science. In 2011 & previous years, our SOL scores were consistently exceeding in the upper 90%.

The new SOL tests in 2012 with increased rigor caused our reading and math scores dropped by 30 percentage points. Since our school focused more on environmental stewardship, STEM & civic engagement, our 2014 SOL scores increased by 10%.

Reading – AMO Target – 72%

Reading – Accreditation – 75%

All Students – 3 year average – 76%

All Students – current year 2014 – 72%

All Students – previous year 2013 – 64.93%

Math – AMO Target – 68%

Math – Accreditation – 70%

All Students – 3 year average – 66%

All Students – current year 2014 – 72%

All Students – previous year 2013 – 61.29%

3rd Reading	2013-14	58	75.9
	2012-13	53	66.0
	2011-12	53	81.1
4th Reading	2013-14	49	69.4
	2012-13	49	57.1
	2011-12	51	88.2
5th Reading	2013-14	56	66.1
	2012-13	49	75.5
	2011-12	46	95.7
Writing	2013-14	54	70.4
	2012-13	49	83.7
	2011-12	46	93.5
3rd History	2013-14	59	84.7
	2012-13	52	84.6
	2011-12	53	77.4
5th VA Studies	2013-14	51	66.7
	2012-13	49	83.7
	2011-12	45	84.4

3rd Math	2013-14	57	71.9
	2012-13	53	52.8
	2011-12	53	58.5
4th Math	2013-14	51	68.6
	2012-13	49	67.3
	2011-12	51	64.7
5th Math	2013-14	55	67.3
	2012-13	50	68
	2011-12	46	73.9
3rd Science	2013-14	58	87.9
	2012-13	53	71.7
	2011-12	53	84.9
5th Science	2013-14	55	43.6
	2012-13	49	81.6
	2011-12	46	97.8

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

Currently, our staff is participating in staff development sessions surrounding STEM and our outdoor living science lab. Teachers also attend local area conferences with emphasis on math and science. Each grade level created curriculum maps that embedded STEM and science lessons to try it out with students in the classroom. We also used VDOE's STEM lessons as a resource. Staff comes together to share "evidence" of student learning. As part of this work, teachers integrate a plan-do-study-act model of continuous improvement of their learning.

Teachers encourage writing and curiosity across the curriculum, including asking questions about our natural world. We have discovered that when students are engaged in observing their natural surroundings, they develop the habit of mind of a scientist that feeds into their writings and drawings about the environment.

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.

It is our school's vision & mission to create a creative community of lifelong learners.

Our teaching staff is invested in teaching our students through the core STEM disciplines. This is done through project based learning in writing, research and art across the curriculum on a daily basis during instructional blocks of the day – 120 minutes during Language Arts, 60 minutes in math, 30 minutes of Science, 30 minutes of Social Studies and 45 minutes in Art. We converted our computer lab into a Wonder Lounge – an open contemporary learning space that promotes curiosity and wonder. Students can make and create in this space with ipods, ipad minis, mac airs, chromebooks, microscopes, Keva Planks, Wonder Wall and other tools to encourage research and creativity. Each class visits and spend time in the Wonder Lounge once a week for 30 to 45 minutes.

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

Students learn about building energy performance as they walk into Crozet Elementary and see the ENERGY STAR label on the front door. Signage throughout the building teaches student about energy and water conservation. Our custodial staff follows a green cleaning program.

Students have access to our Division’s Renewable Energy Resource Center, which hosts a 42 kW solar photovoltaic system, solar thermal panels for heating water, and a wind turbine. The Center lends a variety of books about renewable energy careers and projects and NEED kits for all grade levels. Performance data collected from the systems can be accessed online at:

http://live.deckmonitoring.com/?id=henley_middle_school

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.

In addition to investing in our immediate natural resources, our science curriculum provides our students with opportunities to experience learning about our natural systems through overarching concepts, such as patterns cycles and change. In addition to the systematic work around natural systems, we find that when we model our devotion to “life-long learning”, our students follow by being curious and observing their natural world to solve environmental problems through research and design to build and improve. We use STEM practices of problem-solving, analysis, planning and innovation to capitalize on students’ natural curiosity supported with the use of University of Virginia’s Children’s Engineering Design Briefs and Digital Fabrication in all grades.

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

Students experience meaningful outdoor investigations through the grant from the Cornell Lab of Ornithology - <http://www.birds.cornell.edu/page.aspx?pid=1478> . We were given and used bird seeds, 10 sets of binoculars, lesson plans and home activities. The Cornell Lab of Ornithology is a world leader in the study, appreciation, and conservation of birds. Their hallmarks are scientific excellence and technological innovation to advance the understanding of nature and to engage people of all ages in learning about birds and protecting the planet.

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.

Annually, our school holds a “Community Night”. This is the culmination of the research, STEM projects, art, and writing that have accumulated over the school year. Local school community members are invited to the school for an opportunity to see how students have incorporated the art, history, engineering, nature, and research into the curriculum. Our students at each grade level share their yearlong projects in an Open House format. Local business and restaurants donated organic foods and refreshments in the Eagle Nest Café (school cafeteria) during the event.

As students care for the Butterfly Garden, the Natural Running Trail, our Rain Garden Habitat and the raised garden beds, they are not only tending to our environment, but engaging in the VA Standards of Learning Curriculum as well. When we have prospective parents and community members touring the building, I am often asked about the emphasis/overemphasis of the SOLs. It is a pleasure to be able to share our natural gardens and speak directly to how these are incorporated into the learning that takes place in Crozet Elementary. Once parents understand that our SOLs allow us to incorporate our natural world, they become more confident that we are not a school invested in multiple-choice answers, but rather a community invested in preparing our students for the future they will inherit.

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.

Teachers at Crozet teach children to be curious, ask questions and respect for all things including our natural environment. The school artwork displayed throughout the building stress quality craftsmanship to the students and respect for the built environmental as well.

By using our own gardens as a way to teach how we interact and depend on nature, students learn first-hand how fragile nature can be if not cared for. Students have experienced through successes and failures through project based learning surrounding growing our own vegetable gardens and creating our Rain Garden Habitat. When students are responsible for the weeding, flowering, and caring for their gardens, they come to understand that we are in a reciprocal relationship with nature, and we must be careful to remember that in order for our environment to sustain us, we must care for our environment.

Our school natural gardens are highlighted in tweets and blogs to the community. Many of our school community members come to our school to enjoy the natural running trail, butterfly garden and the Rain Garden Habitat.

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.

Crozet has actively participated in “Day of Caring.” We use this opportunity to connect with our broader community businesses to help tend our raised garden beds. Our local Lions Club built 3 picnic tables for community use around our natural environment near the Rain Garden Habitat and Tennis Courts. The University of Virginia built and donated picnic tables for our natural courtyard and playground areas.

Curricularly as a school, we believe curiosity is fostered through new opportunities that connect personal meaning to making experiences. Each grade level has connected their classroom curriculum work to our community. Our kindergarteners extends their learning from our elders in two community retirement homes, First graders also work with elders and Friendship Camp to care for horses and equine studies. Second graders are the torch carriers of maintaining and promoting all our natural gardens being environmental stewards working with the VA Department of Game and Inland fisheries and Thomas Jefferson's Monticello Gardens. Third graders partnered with the Crozet/Western public library to share their learning about books and genres on a monthly basis with presentations, making book trailer, and encouraging other to read. Fourth graders researched on how geography and natural environments affects how we live by blogging, creating wikis and having museum style exhibit such as Canoeing Across Virginia with interactive displays and presentations. Fifth graders research how history affects our lives locally and globally by exploring Gandhi's quote "Be the Change You Want to See" with IMPACT (I'm Making a Planned Act of Compassion Today) community projects using the Jane Goodall Institute's Roots & Shoots organization - <http://www.rootsandshoots.org> Our Art, Music, Library, Gifted, Special Education and PE teachers collaborate with each grade level's project to be interdisciplinary.

Our PTO's continued commitment to provide parent volunteers and funding to maintain our natural learning gardens that is tremendously appreciated. We also have a saltwater fish tank that is maintained through a committee of teachers, parents, students and PTO called the Friends of the Fish who keeps our Crozet fish alive and well so that students can enjoy bringing this bit of nature indoors – marine biology.

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.

Our additional indicator and benchmark would be our County's Performance-Based Science Assessments in grades 2 and 3 – focus on students making inferences based on observations of living things and the world AND to understand that people adapt to their environment in different ways in order to survive.

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.

In addition, we integrate a core environment, sustainability, STEM green technology and civics into curricula to provide effective environmental and sustainability education, highlighting innovative or unique practices and partnerships as described in other parts of this application by

- Creating a school-wide Google Doc Living Lab Essential Science Objectives by Grade Level that has a learning matrix of lesson ideas and resources for our school to stay the course of being environmental stewards. All staff members can contribute to the learning matrix to share and collaborate ideas.
- Partnership with our feeder-pattern high school – Western Albemarle High School's Environmental Studies program of studies to encourage and inspire a career pathway of future environmentalists.
- CRES Morning News Broadcast to every classroom about the Weather and other Environmental topics.
- Partnership with Black Bear Composting



Figure 1: Rain Garden Ribbon Ceremony



Figure 2: Crozet Elementary Composting Setup



Figure 3: Student Volunteers Help Sort Organic Waste for Composting



Figure 4: Walk/Bike to School