



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: Mr. John M. Gibbs

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

Official School Name: Bassett High School

(As it should appear on an award)

Official School Name Mailing Address: 85 Riverside Drive; Bassett, VA 24055

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

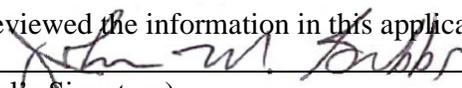
County: Henry State School Code Number *: 0440010 (NCES School ID: 510192000837)

Telephone: 276-629-1731 Fax: 276-629-8221

Web site/URL: <http://web.henry.k12.va.us/bassett/> E-mail: jgibbs@henry.k12.va.us

*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)

Date: January 16, 2015

Name of Superintendent: Dr. Jared Cotton

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



District Name: Henry County Public Schools

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

Date: January 23, 2015

(Superintendent's Signature)

Nominating Authority's Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the 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.

1/23/15 Date:

(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.

Bassett High School believes all students and staff must be good stewards of the environment and the school division's financial resources. Bassett High School (BHS) embraces energy conservation and recognizes that minimizing energy consumption and related costs will maximize funds available for use in the classroom.

Bassett High School has a comprehensive approach and demonstrated progress towards each of the Green Ribbon School award program goals:

Goal I: Reduce environmental impact and costs.

Goal II: Improve the health and wellness of students and staff.

Goal III: Provide effective environmental and sustainability education, incorporating STEM, civic skills, and green career pathways.

Quantifiable measures for each goal are included within this application.

Goal I: An established energy conservation program with short- and long-range strategies to reduce energy consumption has been in place since 2009. Accurate records of energy consumption and cost have been maintained and shared with the community on a monthly and annual basis. From 2009 to 2014 Bassett High School's cost avoided savings totaled \$367,676 which equates to a savings of 27.25%.

This resulted in Bassett High School receiving an Energy Star rating and a 30.31% reduction in electric consumption.

Goal II: In addition to facility improvements and significant savings in the past four years, Bassett High School also recognizes healthy behaviors of students and staff are vital to the success of the school's instructional program. Bassett High School has high standards for nutrition and fitness in order to improve student and staff health, attendance, and achievement.

Goal III: Environmental and sustainability education are an anchor in Bassett High School's curriculum. In addition to career and technical courses focused on green career pathways and STEM, all students must take Earth Science and Biology which are embedded with environmental and sustainability standards. Bassett High School also has nationally recognized horticulture programs which have waiting lists each semester and twenty percent of students in grades at BHS are enrolled in at least one horticulture course each semester.

Bassett High School prepares students, not only for post-secondary education and careers, but to be responsible stewards of their environment. The school focuses on environmental education, green career pathways, and STEM opportunities.

From 2009 to 2014, Bassett High School's cost savings totaled \$367,676 which equates to a savings of 27.25%.

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 Henry County Public Schools, including Bassett High, has been under contract with Cenergistic, formally Energy Education, (Formal; contract with Cenergistic expired in January 2014, our support from Cenergistic continues today, as long as we keep an Energy Specialist employed on our staff), for energy conservations, and we have submitted all of our facilities to Energy Star for certification. All of our facilities met the required ratings for the last three years.

2. (CcQ2) Has your school, staff or student body received any awards for facilities, health or environment? Yes No

Energy Excellence Award for Energy Savings (2011), Energy Excellence Award for Environmental Savings (2012), Virginia School Board Association Green Schools Challenge with Second Place Platinum Certification overall in the State (2012), Virginia School Board Association Green Schools Challenge with First Place Platinum Certification overall in the State (2013 and 2014)

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 42% Time period: from 2009 to 2014

Initial GHG emissions rate (MT eCO₂/person) 6.3

Final GHG emissions rate (MT eCO₂/person) 2.7

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 usage is tracked by the technology. EnergyCAP software. This software received the Energy Star Partner of the Year Award for the last four years (2010-2014). A report is generated monthly and distributed to all stakeholders. The report details cost avoidance savings, energy cost, energy usage, cumulative greenhouse reduction, and cumulative energy savings.

4. (1A2) Does your school track resource use in EPA ENERGY STAR Portfolio Manager?

Yes No

If yes, what is your score? 79 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) 10.786

Current energy usage (kBtu/sq. ft./year) 42.84
Percentage reduction: 23.8% Time period February 2014 to October 2014
How did you document this reduction? EnergyCAP software records and automatically performs the calculations. (See answer 3 for additional information regarding EnergyCAP.)

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%

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

7. (1A5) In what year was your school originally constructed? 1978

What is the total building area of your school? 189,437 Percentage of the building area that meets green building certification 100%

School and district officials studied the requirements of achieving “green school” status as stated by the U.S. Green Building Council and The Center for Green Schools. Officials determined Bassett High School meets the following criteria:

- Conserves energy and natural resources which is proven by the energy performance of the school;
- Saves taxpayer money, by reducing energy consumption;
- Improves indoor air quality by measuring CO2 in critical areas;
- Removes toxic materials from places where students learn and play;
- Employs daylighting strategies and improves classroom acoustics where applicable;
- Employs sustainable purchasing and green cleaning practices through contracted custodial services;
- Improves environmental literacy in students;
- Decreases the burden on municipal water and wastewater treatment by looking at a near waterless strategy for urinals;
- Encourages waste management efforts to benefit the local community and region;
- Conserves fresh drinking water and helps manage storm water runoff;
- Encourages recycling;
- Promotes habitat protection; and
- Reduces demand on local landfills.

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 63,146 Percentage that meets green building certification 34%

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:

Bassett High School works with the County of Henry through Request for Proposal process when bidding any of the above mentioned and all local contractors that have met the criteria are listed and received bid notification. This limits delivery from out of town vendors and contractors.

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

In 2009, Magna Vista adopted energy guidelines and an energy policy contract with Cenergistics, formally Energy Education. An energy manager was hired. This continues to be a successful program due to GHG reductions and decreasing utility costs. From 2009 to 2014, Bassett High School's energy reduction impact is 14,416 MMBTU.

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) 2402

Current water use (gallons per occupant) 764

Percentage reduction in domestic water use 68%

Percentage reduction in irrigation water use 18% N/A (If irrigation system not in place.)

Time period measured (mm/yyyy - mm/yyyy) 10/2009 to 10/2014

How did you document this reduction (e.g., ENERGY STAR Portfolio Manager, utility bills, school division reports)? Utility bills are recorded by EnergyCAP software on a monthly basis.

11. (1B2) What percentage of your school's landscaping is considered water-efficient and/or regionally appropriate? 90 % Describe the type and location of plantings.

Landscaping beds have been established in raised planters at the entrance of the school. All beds are mulched seasonally to decrease evaporation. Plant selections for the color beds include water-wise perennials. Shrubbery plantings have been established on the property and include locally adapted plant species. These permanent plantings do not require watering beyond normal rainfall.

Conversion of athletic fields to warm season Bermuda grass was a "Water-Wise" move. Research has shown that clump style Cool Season grasses such as Fescue and Bluegrass require 30.75 gallons/square foot/year whereas Warm Season plants that spread by runners such as Bermuda and Zoysia require 19.50 gallons/square foot/year.

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

The school currently uses a well for irrigation for athletic fields and a time-clock system to control the watering times and duration. This system also has a sensor to monitor the weather, therefore if it's raining, the irrigation system will not come on.

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

Investigated and implemented a plan to reduce standing storm water around football field from entrance driveway to press box, the solution was to regrade area, install rip-rap, cover with fill, and reseed area, causing no silk runoff and only clean rainwater to flow into the nearby stream. BHS continues to reseed banks each year to reduce storm water runoff. We have cleaned and repaired natural run off with silk free grasses and other prohibitive measure.

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.

The municipal supplier monitors the water supply for the following: pH, Turbidity, Chlorine, Raw & Applied Water Alkalinity, Raw & Finished Water Hardness, Finished Water Alkalinity, Carbon Dioxide Levels, Fluoride Level, Water Temperature. Additionally, the following monthly tests are conducted: Split Fluoride Sample with State Laboratory, Bacteriological Samples, Total Organic Carbon and Lead, Total Trihalomethanes, and Total Haloacetic Acids are monitored quarterly. Flow Rates and the use of Stream and Current Monitoring also provide important protective monitoring data on a regular basis.

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

Natural forest habitats and areas of recreation are regularly monitored for preservation maintenance needs. Plantings around the natural creek that runs through the property ensure the stability/integrity of surrounding soil and prevent erosion. Students in the Environmental Science course and Facilities Maintenance course regularly work to ensure the integrity of the soil, water, and plant life on the property through testing, planting, and reforestation. Science classes work with horticulture students across the school district to enhance areas around the school with plants that require little water intake and are friendly for local wildlife.

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? 90%

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

Bassett High School uses Spectrum paper from Georgia Pacific, the first forest products company to achieve third-party certification for wood and fiber procurement operations through the Sustainable Forestry Initiative®. GP tracks wood fiber through all stages of production and is recognized as one of the Leaders in Sustainability for Energy Efficiency for their comprehensive energy management program, which reduces energy intensity during manufacturing.

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) 3,575
- B. Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected) 777
- 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) 0

Recycling Rate = $(B + C) \div (A + B + C) \times 100$ 17.85

Monthly waste generated per person = $(A/\text{number of students and staff members})$ 2.806

There are several student groups/organizations within the school who work to encourage students and staff to recycle. Partnerships with Coca Cola and EMI Recycling have been developed for this purpose. Additionally, the school is in phase two of a Bring Your Own Technology implementation that allows for paperless textbook use.

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

Flammable liquids <u>25 gal</u>	Corrosive liquids <u>none</u>	Toxics <u>none</u>	Mercury <u>none</u>
<u>Field paint (for football field lining)</u>			

Other Hazardous Waste:

Small amounts of Chemistry lab supplies are occasionally present at the end of the school year. These are stored until disposal at the county's hazardous waste collection. Typically, there is less than 1 cup of each of the following: HCl, H₂SO₄, HNO₃, H₂SO₃

How is this measured?

Careful planning and micro-scaling use of laboratory chemicals used in science classes decreases the generation of hazardous waste.

How is hazardous waste disposal tracked?

All science teachers Flinn Laboratory Safety teachers have the opportunity to take the Flinn Scientific High School Laboratory Safety Certification Course. This course enables teachers to revisit basic safety practices and learn about new regulations including those pertaining to proper disposal of chemicals and other practices that promote a healthy environment.

T5 lightbulbs have been part of recent upgrades to classrooms within the school. These bulbs are longer lasting and require specific disposal upon expiration. The school's maintenance department works with the bulb vendor to ensure proper disposal of expired bulbs.

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

Twice a year the county holds a hazardous waste day, during which we will gather all unused/unconsumed hazardous materials (community members and businesses can bring oil containers, paint cans, medications, etc that they have not used), and the county will collect and dispose of at no charge to our school division. Students groups work throughout the month prior to these collections to encourage participation and to collect materials from around the school to take to the collection (paint from art classes, expired medications from the nurse's office, electrical wires from the shop class, and expired light bulbs that need to be disposed of).

Bassett High School partners with EMI Imaging to digitize records in an effort to reduce paper consumption and EMI Recycling to recycle cardboard, paper, and glass. Bassett High School partners with Coca Cola to recycle plastic and aluminum. Art program students participate in a reuse effort for sculpting.

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? 75%

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

All custodial products used are Diversey products, which are certified by independent organizations including Green Seal, Environmental Choice, GreenGuard, EU Flower, and Nordic Swan. BHS also uses dispensing technology which precisely dilutes concentrated products with tap water to make cleaning safer, more cost effective, and limits the negative impact on the environment.

Element 1D: Use of Alternative Transportation

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

Walking/biking <1% **Carpooling** (3+ students in a car) 6% **Riding the school bus** 65%

The school does not use school buses. **Describe how this information is collected and calculated.** Student transportation data is collected via survey of intent at the beginning of the school year and student arrival and dismissal methods are monitored by school attendance staff.

Transportation information is also maintained daily by the pupil transportation department.

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.

Due to the location of Bassett High School, walking and/or biking is not feasible for the majority of staff and students. Student driving safety and on-campus pedestrian safety is emphasized through informal programming and through direct training of bus drivers, as well as through information

shared with parents at the beginning of each school year.

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

Because of the location of Bassett High School and the local economy, most students ride a school bus to and from school. This form of carpooling has reduced school community use of gasoline and production of emissions.

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 participating in Piedmont Governor's School for Science and Technology complete extensive, comprehensive research projects annually which tackle a real-world, community issue and provide a solution. These projects are presented and judged by the community; however, the greater impact is the value gained by other students and practices implemented by student groups and families following the sharing of information in the student project presentations.

Motivated by these projects, students have begun healthy lifestyle practices and blogged about them to inform their peers, worked within student groups to raise awareness for a cause or practice within the community, and worked to ensure that groups focus their efforts for fundraising with environmental awareness (recycling shoes with funds2orgs, holding a golf tournament rather than selling items, etc).

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)? 0.005 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.

Bassett High School is currently under contract with a local exterminator company, Economy Exterminators. This company has outlined a pest management plan for BHS which focuses on non-chemical methods with the goal to keep the school pest-free. The program involves setting up glue boards and monitoring devices in each facility, monthly visits to monitor any potential activity, and provide facilities supervisor reports with recommendations of next step. If a pest problem is detected, then the company utilizes non-toxic methods first.

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 school district's Facilities Maintenance

Department annually performs inspection on this equipment along with running combustion analyzer on each piece of equipment for proper operation.

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

Bassett High School is currently under contract with a third party environmental testing company which provides constant monitoring if there is any suspicion of contaminants in the school. The Facilities and Maintenance Department monitors CO in the school's boiler room and testing has been performed within compliance guidelines. BHS annually inspects fuel burning combustion appliances. All potential airborne contaminant areas have exhaust fans which are inspected annually for proper operation.

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." There are no playgrounds on site and all of the landscaping materials used are stone.

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

Dust collection systems	<input checked="" type="checkbox"/> Yes	Chemical storage rooms	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> No <input type="checkbox"/> N/A		<input type="checkbox"/> N/A	
Fume hoods in science labs	<input checked="" type="checkbox"/> Yes	Copy/printing facilities	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<input type="checkbox"/> No <input type="checkbox"/> 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.

Bassett High School is currently under contract with two vendors that provide air filtration for all units in the school, and the school district's Facilities and Maintenance Department changes and dates the filters on a quarterly basis. Another vendor is responsible for kitchen hood exhaust cleaning and inspections twice a year.

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.

Bassett High School uses an energy management controls system to operate the air conditioning and heating system which is tied into all exhaust fans in the building. This allows them to occupy the systems before the school day begins and unoccupied at the end of the day provided there are not events in the building. Outside air minimums and CO2 levels in high occupancy areas are also monitored, which, in turn, will allow more outside air and ventilation when levels reach a set point.

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.

For students who have known allergies, Bassett High School strives to limit a student's contact with the offending allergen. For instance, the school nurse discourages teachers from using scented plug-ins in classrooms for students who have allergies and discourages teachers taking students outside when pollen is at its peak. For students who have problems with perfumes, etc. the school nurse occasionally asks teachers/students to refrain from wearing colognes/perfumes. To minimize food allergies, BHS does not serve products with tree nuts and peanut butter has been replaced with sun butter. For students with a known allergen to peanuts, classmates are discouraged from bringing items with peanuts to school.

Bassett High School is now a "latex-free" school because there are numerous students and staff who are allergic to latex including band-aids, blood pressure cuffs, and stethoscopes. The school nurse has a peak flow monitor that is used for students with asthma which quickly identifies a student's aspiration volume. The school nurse strongly encourages students to keep their inhalers with them at all times instead of in the nurse's office.

Effective August 2012, BHS has an adult and pediatric Epi-Pen injector for the emergency management of students with an allergic reaction. It is strongly encouraged for all students who have asthma symptoms related to an allergic reaction to have their own Epi-Pen for field trips and afterschool activities. For students who are having serious asthma issues due to weather, environment, etc., the school nurse assists the students with prescribed nebulizer treatments at school.

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.

Bassett High School utilizes an energy management system to insure proper indoor air quality when the building is occupied. The school district's Facility and Maintenance Department performs quarterly inspections of units when changing air filters to ensure coils and air ducts visible are free from dirt and debris.

Bassett High School's heating and cooling system was upgraded in 2011 which allows the school to better control outside air intake and better air exchanges by controlling outside air dampers on rooftop units and controlling exhaust fans. The school's energy management system (EMS) controls the heating and controlling systems and monitors CO2 levels in critical areas to increase outside air intake when needed. Other time units are set at a minimum outside air intake based on the engineers design.

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 custodial staff at BHS inspects for leaks in ceilings on a daily basis and reports to the school district's Facilities and Maintenance Department. If a leak is detected, new ceiling tiles are installed immediately. All piping is properly insulated and the energy management system helps with the control of humidity in the building, plus the Energy Manager monitors humidity manually during routine on-site visits.

In addition, BHS monitors humidity in the school with a set point of 55% at which point the EMS will put the system into dehumidification control when necessary. Bassett High School is able to monitor this system remotely. BHS has a third party environmental testing company under contract for routine monitoring in the school.

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 science teachers are Flinn Laboratory Safety teachers who have the opportunity to take the Flinn Scientific High School Laboratory Safety Certification Course. This course enables the school's seven science teachers to revisit basic safety practices and learn about new regulations including those pertaining to proper disposal of chemicals and other practices that promote a healthy environment.

Careful planning and micro-scaling use of laboratory chemicals used in science classes decreases the generation of hazardous waste.

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.

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

Yes No If "Yes," explain.

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.

35. (2B4) What percentage of food purchased by your school is certified as "environmentally preferable?" 0% Please briefly explain the type of foods purchased and how this is done.

The school's nutrition department prefers health-wise menu items for all students. This includes purchasing food that has a "clean label" and is limited on the amount of soy, additives, and preservatives. The Food Services Director has also developed a fresh fruits and vegetables program which includes serving only fresh or frozen (rather than canned) vegetables at all times.

36. (2B5) What percentage of students over the past year spent at least 120 minutes of school-supervised physical education per week? 70% Describe how this is measured and monitored.

All ninth and tenth grade students must enroll in and successfully complete a physical education course. Both levels of this course are instructed by highly qualified and licensed teachers. Additionally, a portion of the student body participates in Advanced Physical Education or Weightlifting courses to enhance their physical fitness and participate in strength training.

37. (2B6) What percentage of school-supervised physical education is spent outdoors? 45% Describe how this is measured and monitored.

Students participate in outdoor physical activities that are challenging and health-enhancing and that provide opportunities for social interaction. These are monitored closely by the physical education teacher and students are required to maintain a record of daily participation in physical activities outside of physical education class in a fitness journal that is used in conjunction with health education.

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.

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

Bassett High School has multiple during and after-school activities that students can participate in including physical education classes (required PE 9 and 10, weightlifting, advanced PE, and physical wellness, which has a PE component), organized sports, and the JROTC Raider Club. The organized sports that are offered include football, cross country, golf, track and field, baseball, softball, tennis, and soccer. Additional opportunities for recreation and outdoor education are also offered by a community partner, MHC-After 3. This agency provides afterschool and summer opportunities to Bassett High School students.

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

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

Bassett High School uses Fitness Gram standards and assessments to measure physical fitness levels in all physical education students and charts their progress. This information is provided to the students and their parents.

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.

Bassett High School partners with MHC After 3, a partner with our local YMCA and the area's community college, to encourage student health and physical well-being through summer activity programming. Additionally, Bassett High School students participate in CHILL, a youth task force that promotes healthy lifestyle choices for teens.

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.

Bassett High School is proud to have a walking/running nature trail on the property. This trail is used for Cross Country running teams, but is also enjoyed by students, staff, and community members. Additionally, the BHS track and practice soccer fields are available for public use at all times. Students, staff, and community members are encouraged to make use of these outdoor facilities as

part of the community's 95210 Healthy initiative campaign, which focuses on proper nutrition, rest, and fitness/wellness for school community members.

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.

Bassett High School has adopted a paperless philosophy which includes use of a variety of technology in the classroom and around the school. Students undergo training on the purpose for using technology vs. paper and participate in educating peers and visitors to the building on the environmental benefits of a paperless school.

School-wide use of technology such as laptops, iPads and interactive white boards has reduced paper consumption at all schools, including Bassett High School. To offset energy consumption of these devices, staff members power them down when not in use. Bassett High School utilizes laptop carts and iPad carts with time clocks. When the teacher returns the carts to the designated location, the cart is plugged in and all devices charged for a pre-set time period.

Bassett currently has 1163 students and 111 staff members. The technology inventory for Bassett is as follows:

Ipads - 1's: 120; 2's: 300

Laptops - 445 for students and 91 for teachers

interactive whiteboards - 26

printers - 24 bags

Kindles - 3

document cameras - 9

Nooks - 50

Students also participate in educating members of the public at school events regarding recycling programs and efforts.

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

Much of Bassett High School's science curriculum addresses environmental literacy. For example, the Earth Science curriculum emphasizes environmental costs and benefits of renewable and nonrenewable resources, effects of human usage on water quality, economic and public policy issues concerning the Chesapeake Bay, and changes to the atmosphere and climate due to human, biologic, and geologic activity. The Biology curriculum includes an entire strand devoted to dynamic equilibria within populations, communities, and ecosystems. In particular, the effects of natural events and human activities on ecosystems is addressed. Environmental Science courses emphasize that human survival depends on developing practices that will achieve sustainable systems.

Environmental and sustainability concepts are also integrated into the JROTC program and the Government curriculum. Additionally, as a class project, the HVAC class upgraded all lights in their classroom and

find that the return on their investment would be a little over 18 months. They also have study and imp boiler efficiency testing on BHS boilers.

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.

Students at Bassett High School have demonstrated proficient and advanced levels on assessments related to environmental and sustainability concepts. Results from classroom assessments, VA Standards of Learning assessments, and Career and Technical Education certification assessments show that the majority of students at BHS have a solid understanding of environmental and sustainability concepts.

The VA Standards of Learning assessments provide a means of quantifying student performance on the embedded concepts of renewable resources and sustainability. Students receive assessment scores that are proficient or advanced based on their level of mastery of the embedded concepts.

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

Through a Virginia Department of Mines, Minerals and Energy grant, Henry County Public Schools has solar panels installed on a middle school campus for students across the county to use in energy studies. All science and CTE teachers were trained in the National Energy Education Development (NEED) Solar Energy Curriculum in June 2010. Through hands-on instruction with NEED curriculum kits, students have an in-depth experience with solar energy as an alternate energy source. One of the goals of this project is to expand this training and curriculum work with solar panels to Bassett and other schools in the district.

In addition, all high school science teachers at BHS have completed the Flinn Laboratory Safety Certification Course. This course enables teachers to revisit basic safety practices and learn about new regulations including those pertaining to proper disposal of chemicals and other practices that promote a healthy 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? 0 %

What percentage of these students scored 3 or better on the Advanced Placement Environmental Science assessment? 0 %

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.)? No

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.

Pacing guides devote sixteen percent of instructional time to environmental content in Earth Science and Biology courses. Environmental literacy and sustainability is addressed throughout Environmental Science courses. Career and technical courses include programs such as Project Lead the Way (PLTW), which includes components pertaining to green engineering. CTE courses devote approximately 20% of their semester to environmentally related education.

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

Several Career and Technical Education courses emphasize environmental sustainability. For example, in *Architectural Drawing & Design*, students build a model of a garage via CAD and Revit software and incorporate green technology into their design. Science and art courses contain modules of learning that focus on sustainability and the environment as well. In science, these lessons are focused on natural resources and plant/soil/water conservation. In art courses, the instruction is centered on material use/reuse/repurposing.

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.

Curriculum is standards-based and age-appropriate. Environmental science standards spiral, K-12, so that students are working with concepts and developing skills necessary to deepen their understanding of and appreciation for the environment.

Natural resources and recycling/repurposing are a K-12 focus, with problem-based projects as a focus in the science and marketing curriculums on the high school level.

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

Initiated by a MWEE grant several years ago, seventh grade students at FC Middle School, the feeder school for Bassett Vista High School, conduct macroinvertebrate studies of the Smith River and of creeks running through the school campus. These studies incorporate analysis of biological health of waters and discussion of the impact of human activity on food chains that ultimately affect trout being raised in schools throughout the district. At Bassett High School, these students continue to study water quality through environmental curriculum strands and continuation of Trout in the Classroom (see Item 53).

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.

Bassett High School's JROTC cadets (220 students) participate in an Adopt a Highway program, in which they work with community members to keep the highway near BHS clean as well as working in conjunction with Dan River Basin Association to keep area riverbanks clean of debris. The

National Honor Society works with other community groups to clean the area surrounding the community's 8-mile walking trail (The Dick and Willie Trail). Each of these groups works in conjunction with science, math, and social studies classes to research best practices, implement marketing programs for participation, and analyze statistical data for comparative analysis from clean-up to clean-up.

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.

Bassett High School's strategic plan/school improvement plan includes implementation of a senior project that is focused on service-learning and community involvement. Environmental sustainability issues will be a major component of these projects as they are implemented in the coming year (the current pilot program involves 100 seniors in an AP English course).

Beginning in 2016-2017, these projects will be required of all seniors and 21st century skills supporting these projects will be embedded throughout the high school curriculum.

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.

Bassett High School partners with the Dan River Basin Association (DRBA) on *Trout in the Classroom* (TIC); New College Institute on STEM course offerings and onsite work visits for students to provide relevance to the classroom; Patrick Henry Community College on Advanced Placement and Dual Enrollment courses providing STEM and environmental/sustainability curriculum; and the Virginia Museum of Natural History in a variety of ways, including educational outreach and field trip programming focused on environmental sustainability.

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.

In addition to curriculum in science and CTE courses, school based recycling/repurposing initiatives and the implementation of senior projects (ref. #52) will ensure all BHS graduates are environmentally literate.

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.

Through a partnership with the Dan River Basin Association (DRBA), Bassett School participates in *Trout in the Classroom* (TIC). The science and Career and Technical departments at Bassett High School house trout tanks that students monitor as the fish are raised from egg to fingerling stage. Students monitor pH, temperature, and other factors in the tank environment from late fall to early spring followed by a trout release in the Smith River. DRBA personnel provide presentations and macro-invertebrate studies to supplement the program. Throughout the trout study, students discuss

impact of human activity on streams, rivers and watersheds in our area.

Streamside Trees in the Classroom (STIC) also integrates sustainability into the curriculum at BHS.

Several student organizations coordinate recycling efforts for paper products and cell phones. The phones are recycled through the Hope Phones organization. This year the phones are being collected for US troops. In previous years, they were donated to battered women and medical workers in Africa.

Additionally, the school's band is working with funds2orgs to collect used shoes for repurposing in Haiti and the BETA club is collecting "Jeans for Teens" as part of a reuse project. Bassett High School is also participating in the district's #projectprom, a free prom dress giveaway for girls in our community, by serving as a dropoff location for donated prom attire.