



U.S. Department of Education Green Ribbon Schools 2013

For Public Schools only: [] Charter [] Title I [] Magnet [] Choice

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

Official School Name Phillips Exeter Academy
(As it should appear in the official records)

School Mailing Address 20 Main Street
(If address is P.O. Box, also include street address.)

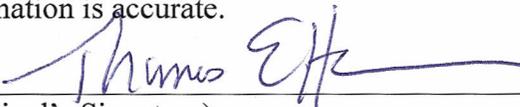
Exeter NH 03833
City State Zip

County Rockingham State School Code Number* n/a

Telephone (603) 777-3401 Fax (603) 777-4393

Web site/URL www.exeter.edu E-mail thassan@exeter.edu

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 February 4, 2012

Name of Superintendent* n/a
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name* n/a Tel.()

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate. This is one of the highest performing green schools in my jurisdiction.

n/a Date _____
(Superintendent's Signature)

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



PART II – SUMMARY OF ACHIEVEMENTS

Instructions to School Principal

Provide a concise and coherent "snapshot" that describes how your school is representative of your jurisdiction's highest achieving green school efforts in approximately 800 words. Summarize your strengths and accomplishments. Focus on what makes your school worthy of the title U.S. Department of Education Green Ribbon School.

PART III – DOCUMENTATION OF STATE EVALUATION OF NOMINEE

Instructions to Nominating Authority

The Nominating Authority must document schools' high achievement in each of the three ED-GRS Pillars and nine Elements. For each school nominated, please attach documentation in each Pillar and Element. This may be the Authority's application based on the Framework and sample application or a committee's written evaluation of a school in each Pillar and Element.

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.

1. The school has some configuration that includes one or more of grades K-12. (Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.)
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 Department of Education, New Hampshire

Name of Nominating Authority Virginia M. Barry, PHD, Commissioner of Education
(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.

Virginia Jo. Barry, Ph.D.
(Nominating Authority's Signature)

Date 2/9/13

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.



Phillips Exeter Academy

Thomas E. Hassan
Principal

February 4, 2013

Dr. Judith D. Fillion
Division Director
New Hampshire Department of Education
Division of Program Support
101 Pleasant Street
Concord, NH 03301

Dear Dr. Fillion:

We are pleased to submit our application to the New Hampshire Department of Education for nomination to the United States Department of Education's Green Ribbon Schools program. Phillips Exeter Academy is committed to integrating sustainability and environmental stewardship into all aspects of school life. As our Environmental Mission Statement emphasizes, "we must foster a culture of environmental awareness, which should be integral to our community in all venues of daily life, on and off campus – where we learn, where we work, where we live, and where we play."

In this application we have endeavored to demonstrate our commitment and achievement to the Three Pillars of the Green Ribbon Schools Program and highlight the actions we have taken and practices we follow to make our school a more sustainable environment which reduces energy use and cost, improves the health and wellness of students and staff, and provides effective environmental and sustainability education.

In this application we highlight some of our most significant actions, including the following:

- Conversion to natural gas from oil in our central heating plant, resulting in a reduction in greenhouse gas emissions of 63%
- Installation of 40 geothermal wells for heating and cooling of classroom buildings
- LEED Silver certification of the Phelps Academy Center and LEED Gold certification of Faculty housing
- LEED-based Guiding Principles for Sustainable Construction
- High performance Cleaning Program with third party-certification of commonly used products

Dr. Judith D. Fillion

February 4, 2013

Page Two

- Renovation of the Lamont Student Health Center with a planned green roof, rain gardens, and wetlands for outdoor environmental education and low-impact development best practices
- Courses in a wide variety of environmental topics including basic level sciences as well as more advanced courses in ecology, population and environment, environmental chemistry, and several one-year study options at other schools and service trips.
- Elimination of the use and sale of plastic water bottles on campus
- Composting of dining hall food waste in the Elm Street Dining Hall

Thank you for the opportunity to submit this application.

Sincerely,

A handwritten signature in black ink, appearing to read "Tamara", with a long horizontal flourish extending to the right.

Enclosures:

SUMMARY OF ACHIEVEMENTS

Phillips Exeter Academy has taken many significant actions to demonstrate commitment to and achievement of the three pillars of the Green Schools program. All of our efforts are guided by our commitment to our school's Environmental Mission Statement, which reads, in part:

As an institution, our priorities, decisions, and actions will be informed by their environmental impact. We should pay particular attention to the use of our land, the construction and renovation of our facilities, our consumption of energy and other resources, and our choices of transportation. The Academy must educate our entire community about environmental issues and sound environmental practices to address that part of the Academy's mission that seeks to graduate young people "whose interest in others and the world around them surpasses their self-concern."

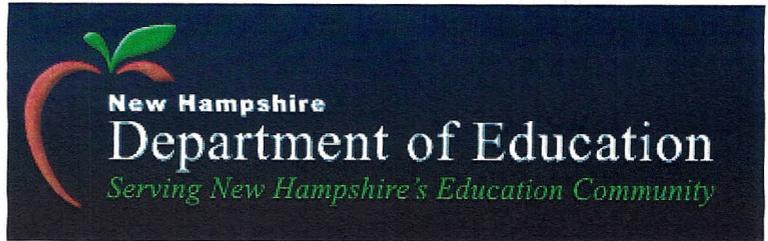
The following key achievements documented in this application demonstrate our commitment to the three pillars:

- Reduction of greenhouse gases through conversion to natural gas from oil for our central heating plant
- Energy audits of key high use buildings and plans for campus-wide metering and implementation of energy conservation measures in building envelopes, systems, and use of renewable energy sources such as geothermal
- Campus-wide recycling and composting in Elm Street Dining Hall
- Best practices in Green Cleaning with third-party certification
- A curriculum of indoor and outdoor environmental education through science, technology, mathematics, economics, and the humanities, and an active student body and program of environmental clubs and E-Proctors in every dorm
- Preventative maintenance and a full-time safety and environmental compliance manager to ensure indoor air quality and efficient operation of campus systems and building components for the health of students, faculty and staff
- A culture of health and fitness through student participation in junior varsity, varsity, and recreational sports and a myriad of options for outdoor sports and recreation
- Student and faculty gardens with plans to expand gardening to the main quads through the integration of permaculture into our landscape plans, and the integration of low impact development strategies to manage stormwater onsite through green roofs, wetlands, and rain gardens
- Partnerships with local, state, and federal entities on best practices for sustainability and environmental stewardship and outreach to the community through environmental education with speakers, film series, and campus events

We have achieved certifications in LEED and Energy Star, have lowered our operating costs, and increased our efficiency by improving heating and cooling, lighting and other building elements and systems, and we will continue to improve our building performance and reach milestones for sustainability goals through every project. Our goals for environmental stewardship and sustainability however are much broader than our infrastructure. Our school's commitment to our Environmental Mission through its actions, policies, and curriculum is an ongoing effort to fully integrate sustainability and stewardship into all departments, so that stewardship becomes one and the same with mission of non-sibi, or not for oneself. We must be vigilant in our efforts to prepare future generations for stewardship of the environment and we will continue to do so by making every effort to integrate sustainability and stewardship into project planning, operations and maintenance, curriculum, and all aspects of campus life.

APPLICATION OUTLINE

<u>ED-GRS Pillars and Elements</u>	<u>Possible Points</u>
Cross-Cutting Question: Participation in green school programs	5 points
Pillar I: Reduce environmental impact and costs: 30%	
Element 1A: Reduced or eliminated greenhouse gas (GHG) emissions Energy Buildings	15 points
Element 1B: Improved water quality, efficiency, and conservation Water Grounds	5 points
Element 1C: Reduced waste production Waste Hazardous waste	5 points
Element 1D: Use of alternative transportation	5 points
Pillar II: Improve the health and wellness of students and staff: 30%	
Element 2A: Integrated school environmental health program Integrated Pest Management Contaminant controls and Ventilation Asthma control Indoor air quality Moisture control Chemical management	15 points
Element 2B: Nutrition and fitness Fitness and outdoor time Food and Nutrition	15 points
Pillar III: Provide effective environmental and sustainability education, incorporating STEM, civic skills and green career pathways: 35%	
Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems	20 points
Element 3B: Use of the environment and sustainability to develop STEM content, knowledge, and thinking skills	5 points
Element 3C: Development and application of civic knowledge and skills	10 points
Total	100 points



APPLICATION

School Contact Information

School Name: Phillips Exeter Academy

Street Address: 20 Main Street

City: Exeter State: NH Zip: 03833

Website: www.exeter.edu

Facebook page: <http://www.facebook.com/#!/pages/Phillips-Exeter-Academy/108366532520435?fref=ts>

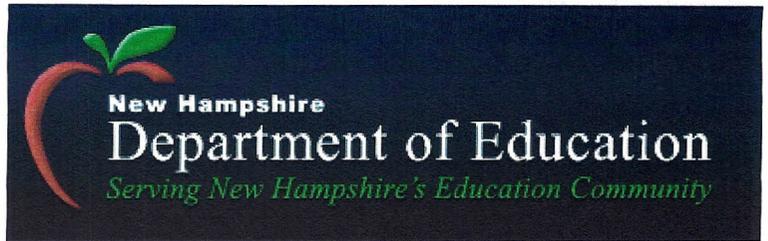
Principal Name: Tom Hassan

Principal Email Address: thassan@exeter.edu Phone Number: 603-772-4187

Lead Applicant Name (if different): Jill Robinson and Elizabeth Stevens

Lead Applicant Email: jrobinson@exeter.edu Phone Number: 603-777-4437

<p>Level (check all that apply)</p> <p><input type="checkbox"/> Elementary</p> <p><input type="checkbox"/> Middle</p> <p><input checked="" type="checkbox"/> High</p>	<p>School Type</p> <p><input type="checkbox"/> Public</p> <p><input type="checkbox"/> Charter</p> <p><input checked="" type="checkbox"/> Private</p>	<p>How would you describe your school's location?</p> <p><input type="checkbox"/> Urban</p> <p><input checked="" type="checkbox"/> Suburban</p> <p><input type="checkbox"/> Rural</p>	<p>District Name</p> <p style="text-align: center;">n/a</p> <hr/> <p>Total Enrolled:</p> <p style="text-align: center;">1070</p>
<p>Does your school serve 40% or more students from disadvantaged households?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>% receiving FRPL _____</p> <p>% limited English proficient <u>0%</u></p> <p>Other measures _____</p>		<p>2012 Graduation rate: <u>100</u>%</p> <p>2011-2012 Attendance rate: N/A%</p>



Answer all of the following questions. Please indicate “not applicable” where appropriate.

1. Is your school participating in a local, state or national school program which asks you to benchmark progress in some fashion in any or all of the Pillars?

(x) Yes () No Program(s) and level(s) achieved: __Proto-STARs Bronze, and LEED for New Construction, 3 faculty houses LEED Gold Certified, One Academic Building LEED Silver.

2. Has your school, staff or student body received any awards for facilities, health or environment?

(x) Yes () No Award(s) and year(s) Excellence in Architecture Award received by TMS Architecture for design of the three LEED Gold certified faculty houses year 2010. 2005 New Hampshire Outstanding Tree Farm of the Year.

Pillar I: Reduced Environmental Impact and Costs

Energy

Total number of buildings: 130

Number of residential buildings (dormitories and staff housing): 25 dorms, 54 houses

Total Gross Size of all Buildings: 1.5 million sf

1. Can your school demonstrate a reduction in Greenhouse Gas emissions since 2007?

(X) Yes () No Percentage reduction: 63%

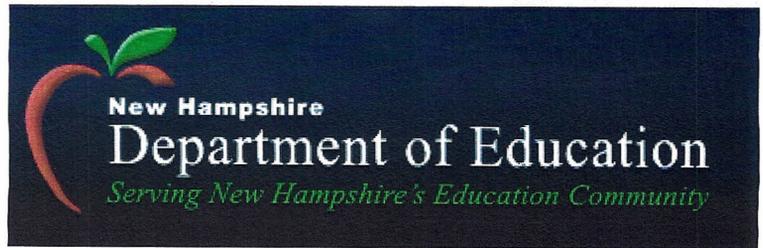
Initial GHG emissions rate (MT eCO2/person): 48.4 metric tons (total) for year 2009

Final GHG emissions rate (MT eCO2/person): 17.7 metric tons (total) for year 2010

Offsets: How did you calculate the reduction? Using NHDES calculation spreadsheets. The reduction is due to conversion from primarily oil to natural gas in central heating plant.

2. Has your school received EPA ENERGY STAR certification?

(X) Yes () No Year(s) and score(s) received: 2008, Energy Star Qualified Home, 42 Court Street



3. Has your school reduced its total non-transportation energy use since 2007? () Yes (X) No

Current energy usage (kBTU/student/year):
Current energy usage (kBTU/sq. ft./year):
Percentage reduction since 2007: _____ %

How did you document this reduction? We have not historically tracked our overall energy use in this unit format. Although we cannot document an overall reduction, we are striving to achieve this reduction through several measures. We have reduced our use of oil greatly by switching to natural gas. We anticipate an overall reduction in non-transportation use energy use as we continue to transition to geothermal energy and install campus-wide monitoring to identify buildings to prioritize for renovation and energy conservation measures and implement these measures. We use LED lighting as much as possible and have completed several lighting upgrades to reduce our electrical energy use.

4. What percentage of the total energy used by your school is obtained from:

On-site renewable energy generation (include geothermal and solar): 3% geothermal heating, 11% cooling

Purchased renewable energy (include biomass heat): We do not directly purchase it but our supplier has hydroelectric within its generation source portfolio of electricity

Describe your school's efforts to achieve zero net energy. (100 words max)

The Academy has a multi-part strategy to achieve zero net energy. We are auditing buildings to determine and prioritize energy conservation measures. We are supplementing existing metering to expand to all buildings to benchmark and monitor performance. In new construction, we follow our LEED-based Guiding Principles for Sustainable Construction. We have installed over 40 geothermal wells and will consider additional renewable energy sources where feasible on our campus. We plan to provide geothermal power to two more multi-story classroom buildings. We are currently implementing several policies to work towards achieving certification in the category of LEED for Existing Buildings, Operations and Maintenance.

5. In what year was your school originally constructed? The oldest building on campus was constructed in 1730.

6. Date of last major construction project at your school: Phase II of Phillips Hall Renovation was completed in July of 2012. We are currently in the process of several renovation projects.

Describe any green features included in the construction. (50 words max)



Replacement of heating, plumbing, and electrical systems, replacement of the windows and roof, energy efficient double-pane windows, systems and lighting upgraded to improve energy efficiency. 83 percent of construction waste diverted from landfill. Materials selected for long life and greater durability. Majority of energy provided by geothermal wells.

Water and Grounds

7. What percentage of your landscaping is considered water-efficient and/or regionally appropriate?:

The Phillips Exeter Academy campus encompasses 934-acres in both Exeter and Kensington. Nearly (90%) of this property is managed as open space or for recreational use and maintained in a natural condition. The landscape on the main campus includes lawns, formal gardens and specimen trees. Many of these plantings include native species considered to be hardy, water-efficient and appropriate for this region.

Types of plants used and location:

Native trees on main campus include: Northern Red Oak, Swamp Oak, Sugar Maple, Red Maple Blackgum, Sweetgum, Shadblow, Paper Birch, Redbud, Yellowwood, Ironwood.

Native shrubs on main campus include: Inkberry, Witch Hazel, Summersweet, Winterberry, Red-Twig Dogwood, Sumac, Fothergilla.

8. Describe alternate water sources used for irrigation. (50 words max)

There are two pump systems that draw water from the Exeter River to irrigate (8) athletic fields located on both the west and east side of the river. Additionally, a private well located under the Academy Lawn off Front Street provides water for (50%) of the main campus irrigation.

9. Describe any efforts to reduce stormwater runoff and/or reduce impermeable surfaces. (50 words max)

All construction projects must follow state and local regulations for stormwater management. Where possible, we use permeable pavement for paved surfaces and we incorporate rain gardens, swales, and other low impact development strategies to achieve on-site infiltration and reduce runoff.

10. Our school's drinking water comes from: (X) Municipal water source () Well on school property () Other:

11. Describe how the water source is protected from potential contaminants.

The water source is treated per state and municipal regulation. In addition, most drinking water stations (including fountains and bottle-filler units) have additional water filters to filter potential contaminants.

12. Describe the program you have in place to control lead in drinking water. (50 words max)

We do first draw testing periodically for all buildings to test for lead.

13. What percentage of the school grounds are devoted to ecologically beneficial uses: 70 to 90%

Describe. (50 word max)

The entire campus is maintained for ecosystem functions and benefits, including all grounds areas which are managed to minimize irrigation and treatment as well as areas of the campus maintained as grassed playing fields, woods, and agricultural fields. Over 400 acres of the main campus are forested, riverbank, and early successional fields. These areas are maintained for multiple ecosystem functions and benefits, including species diversity, flood control, on-site infiltration of stormwater, forestry, sustainable agriculture, and the creation of nesting habitat for bird and other wildlife species in early successional field habitat and scrub shrub wildlife habitat. Wooded areas also contain some small wetland areas which are protected from impacts as well as some vernal pool areas. In addition, the school maintains a 400 acre property located in Fremont as primarily wooded wetland area with no structures that is used for recreation and educational purposes and contains a state recreation trail.

Waste

14. What percentage of solid waste is diverted from landfills or incineration due to reduction, recycling and/or composting? Complete all the calculations below to receive points.

A - Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected): Note: Our garbage service is combined with the Town of Exeter, all figures at this point are estimates.

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

C - Monthly compostable materials volume(s) in cubic yards (food scrap/food soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected):

We have just begun our composting program this year and do not yet have data to answer this question. We track our compostable materials by totes; last month we had 31 totes picked up at 400 pounds per tote for a total weight of 12,400 pounds.

Recycling Rate = $((B + C) \div (A + B + C) \times 100)$: Our waste is picked up in combination with the Town of Exeter so we are currently not able to track separately material amounts except to estimate the amount based on town waste. We estimate from town records and our campus population that we have an average of 16.58 tons of waste per month and an average of one ton of recycling, for a recycling rate of approximately 6%. This is also based on a waste survey for just the dining halls done two years ago. We also divert a large amount of construction waste from landfills.

Monthly waste generated per person = $(A/\text{number of students and staff})$: we do not have this figure since the faculty live on campus and staff do not.

Describe how students are involved in the recycling program: We have an e-proctor program. These are student representatives in dorms and on campus who encourage recycling, help custodians bring down recycling, and collect "terracycling" for our terracycling program (see www.terracycle.com)

15. What percentage of your school's total office/classroom paper content is post-consumer material, fiber from forests certified as responsibly managed and/or chlorine-free?

30 percent post-consumer content, all paper is FSC Certified, elemental chlorine free

16. List the types and amounts of hazardous waste generated at your school:

Flammable liquids	Corrosive liquids	Toxics	Mercury	Other:
150 pounds per quarter	65 pounds per quarter	We include toxics with corrosives, includes heavy metals	We send any intact mercury (in a switch, ie) to be collected as universal waste	

How is this calculated? We report to the state Department of Environmental Services, who keeps quarterly data

How is hazardous waste disposal tracked? We review our reports from the NH Department of Environmental Services

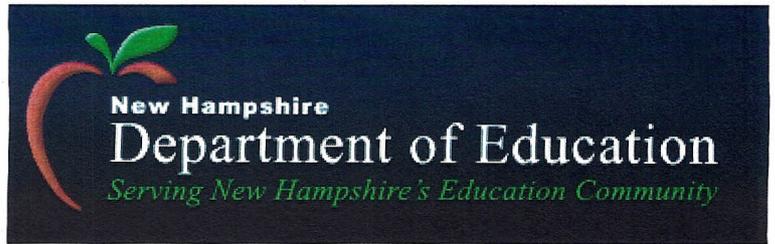
17. Which green cleaning custodial standard is used? We have a High Performance Environmental Cleaning Program

What percentage of all products is certified? All products we use that have a third party certification are certified. We have two heavy duty cleaners only used rarely that are not third party certified because none is available. Routine cleaning products are third party certified.

What specific third party certified green cleaning product standard does your school use? We use Green Seal, EcoLogo, and EPA Biopreferred. We also have a 20 point checklist for health for our products.

18. Describe other measures taken to reduce solid waste and eliminate hazardous waste. (100 word max)

We use compostable paper products where possible and we are currently using Dyson Hand Dryers versus paper towels in our gym and other buildings to test them for campus-wide useage. Using these dryers eliminates all paper towels in gym restrooms. We recently started composting all food waste in one of our dining halls and hope to expand to the other dining hall as soon as we can make the structural changes to the building to accommodate pickup of compost. We compost most leaf and tree trimmings from grounds work around campus. We always include construction waste diversion in new construction projects and have



achieved rates higher than 80 percent diversion in recent projects. We reuse material wherever possible or fix broken furniture and other items in our carpenter shop. If we no longer are using a particular building component, we donate it to Habitat for Humanity's reuse store in Newington, NH.

Alternative Transportation

19. What percentage of your students walk, bike, bus, or carpool (2 + student in the car) to/from school? (Note if your school does not use school buses) 80% of the students walk to classes each day because they live on campus. Of the day students: 12% walk, 2% bike, 52% drive alone or with parent, 30% carpool, 4% take train

How is this data calculated? (50 word max)

Poll of day students

20. Has your school implemented?

designated carpool parking stalls.

a well-publicized no idling policy that applies to all vehicles (including school buses).

Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.

Safe Pedestrian Routes to school or Safe Routes to School

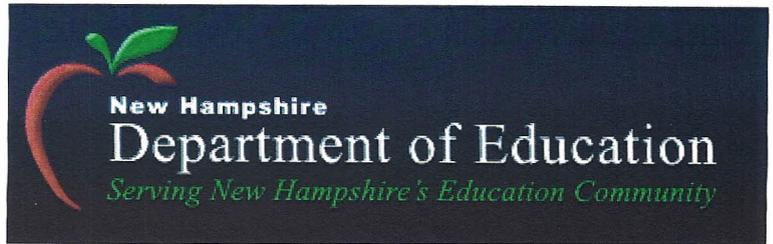
Describe activities in your safe routes program: most students live in campus, except day students from neighboring communities. Campus has bike racks available and train service. (50 word max)

21. Describe how your school transportation use is efficient and has reduced its environmental impact. (50 word max)

We have reduced bus use for Academy Life Day and Community Action Day which involves transportation of entire student body. The social service organization on campus has consolidated transportation of students to community service activities.

22. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships. (100 word max)

Last year we hosted our first Bike to Work day event in fall 2011. Last fall Facilities management purchased 6 bicycles available to workers to travel around campus for maintenance and also for trail maintenance work. The Facilities Management Department also uses fuel efficient small utility vehicles for transportation around campus rather than trucks. Facilities Maintenance purchased a Ford Escape Hybrid for Campus Safety a few years ago; however they found this vehicle was not efficient for the constant short trips and travel around campus, so they discontinued use. The focus now has been to purchase small fuel efficient vehicles that have



improved emissions. These include (2) Honda CRV's used by Campus Safety and (2) Ford Transit Connects used by Campus Dining for catering and Carpenters Shop for a service vehicle.

23. Has your school received certification from any of the following:

- Collaborative for High Performance Schools (CHPS)
- Leadership in Energy and Environmental Design (LEED) Yes
- Energy Star Yes
- Other

Pillar 2: Improve the health and wellness of students and staff

Environmental Health

1. What is the volume of your annual pesticide use (gal/student/year)? Describe efforts to reduce use:

The Grounds Department utilizes "Best Management Practices" for maintaining the athletic fields and grounds. Pesticide use occurs only when necessary to control pests and diseases that may adversely affect the landscape or are considered a health threat to the campus population (i.e.) mosquito control to prevent EEE and WNV.

Efforts are made to maintain healthy plants and lawns to reduce the need for pesticides. Native plants and pest resistant varieties are also selected for the campus landscape.

2. Which of the following practices does your school employ to minimize exposure to hazardous contaminants? Provide specific examples of actions taken for each checked practice.

Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school. We have not completely eliminated elemental mercury from the campus but no new mercury is purchased.

Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO) We have carbon monoxide detectors in our buildings

Our school does not have any fuel burning combustion appliances

Our school has tested all frequently occupied rooms 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 our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L. Periodic testing

Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure. N/A we do not have these structures

3. Describe how your school controls and manages chemicals routinely used in the school to minimize student and staff exposure. (100 word max). We use third-party certified cleaning products managed by trained custodians assigned to each building. Each custodian receives training in the proper use and application of each chemical. Bleach is not used in custodial cleaning operations. We have a trained lab technician that manages chemicals used in the science department. Chemicals are secured in designated areas. We use all protective measures including gloves, goggles, chemical hoods, and teach students safety procedures during lab experiments. We have a Safety and Environmental Manager who oversees all chemical use and safety programs on campus and reports to state and federal agencies.

4. Describe actions your school takes to prevent exposure to asthma triggers in and around the school. (100 word max). We have removed carpet in many areas of campus and do not add carpet to new construction, instead using durable terrazzo, hardwood, or sustainable flooring and reviewing materials during the design phase of construction for potential environmental and human health impacts.

5. Describe actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly cleanup mold or removes moldy materials when it is found. (100 word max)

We have a preventive maintenance program to identify leaks, condensation and excess humidity or reports of mold. Our work order system enables us to respond promptly to any issues and deploy dehumidifiers or remove materials. An environmental compliance technician and the environmental compliance manager supervise these activities and recommend renovation where needed.

6. Our school has installed local exhaust systems for major airborne contaminant sources. Yes No

In the Science Department we have chemical hoods to address any potential airborne contaminants; we do not have other sources.

7. Describe your school's practices for inspecting and maintaining the building's ventilation systems to ensure they are clean and operating properly. (100 word max) We routinely inspect ventilation systems and filters to ensure they are clean and operating properly. We are implementing a system for periodic duct cleaning.

8. 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. (100 word max)

Our preventative maintenance program includes inspection to ensure adequate ventilation and compliance with state and local ordinances.



9. How often does your school replace air filters in ventilation system components? As needed but at least every two years

10. What MERV level filters are used in your school's ventilation system? We have a combination of some MERV filters as well as some HEPA filters, depending on the building.

11. Describe other steps your school takes to protect indoor environmental quality such as implementing EPA IAQ 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. (200 word max)

We have a full time Safety and Environmental Compliance Manager to identify environmental health and safety issues and take corrective action. In addition, this Manager conducts yearly training to comply with state and federal laws such as OSHA to train staff that operate and maintain campus buildings and systems. We interact regularly with local level fire and safety officials to ensure our programs are compliant. We report to the New Hampshire Department of Environmental Services and comply with all applicable local, state, and federal laws. We are currently in the process of considering a full school environmental audit to identify any additional preventive measures we could implement.

Nutrition and Fitness

12. Which practices does your school employ to promote nutrition, physical activity and overall school health?

Our school participates in the USDA's HeathierUS School Challenge. Level and year:

_____.

Our school participates in a Farm to School program to use local, fresh food.

Our school has an on-site food garden.

Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community.

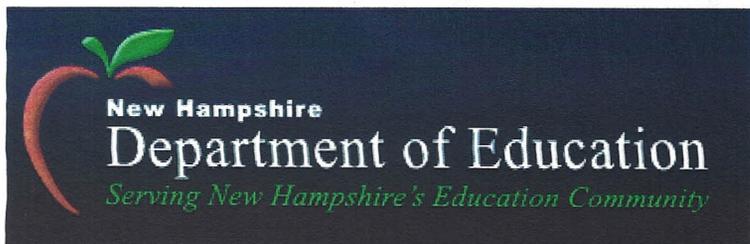
Our students spent at least 120 minutes per week over the past year in school supervised physical education.

At least 50% of our students' annual physical education takes place outdoors.

Health measures are integrated into assessments.

At least 50% of our students have participated in the EPA's Sunwise (or equivalent program).

Food purchased by our school is certified as "environmentally preferable"



Percentage: _____ Type: _____

Provide specific examples of actions taken for each checked practice, focusing on innovative or unique practices and partnerships. (50 word max each)

We have a partnership with a local orchard that provides apples and cider to the dining halls each fall. We purchase local food where possible and have local food at every meal. We serve organic eggs and local and organic milk, and fair trade coffee. We seek to integrate sustainability into all facets of our dining operations. Every day we offer a vegetarian option and identify potential allergens in food menu choices. We have an on-staff nutritionist who can assist students and staff in choosing menu items and developing plans for health eating. We have an annual health fair that includes nutrition, exercise, diet, and general health information and is attended by local hospitals and companies that provide services such as yoga studios, optometrists, nutrition, and other health topics. We have both a faculty and student garden and plan to expand these gardens to other areas of campus including a quad located next to one of the dining halls, where we are considering permaculture gardens that can be used by the dining halls. We have a local farmers market across the street from our campus every Thursday where local farmers sell produce, meat, dairy, and other locally grown or made items that can be purchased by students, faculty and staff.

13. Describe the type of outdoor education, exercise and recreation available. (100 word max)

The Phillips Exeter campus provides many opportunities for students to become involved in outdoor recreation and exercise. All students must choose an interscholastic sport or club sport each term. The school runs 53 interscholastic sports teams and many club sports. An area of over 350 acres of fields and woods, adjacent to the campus, has a large network of trails for hiking and biking. Outdoor recreation clubs include the Fly-fishing Club, the Sportsman's Club, the Surf Club, the Outing Club, the Archery Club, the Astronomy Club and the Farm and Garden Club. Outdoor Challenge Program is a physical education option for those who want to learn about and experience outdoor recreation possibilities on and off of the PEA campus. Students participate in outdoor-skills training, camping, cycling, rock climbing, canoeing, orienteering, and hiking.

14. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships. (100 word max) We have an on-staff nutritionist who works with the dining halls and students, faculty and staff to ensure that there are healthy choices offered in the dining halls. We have an active sports program in our athletic department that not only serves junior varsity and varsity athletes but that also serves recreational sports and sport clubs. Recently our school was featured for providing a lacrosse program to the community for students outside the school who might not be able to afford lacrosse equipment or might not have the opportunity to play the sport.

Pillar 3: Effective Environmental and Sustainability Education

1. Which practices does your school employ to help ensure effective environmental and sustainability education? Provide specific examples of actions taken for each checked practice, highlighting innovative or unique practices and partnerships.

Our school has an environmental or sustainability literacy requirement. (200 word max)

While the school does not have a sustainability literacy course that everyone must take, there are certain classes that all students take that have a sustainability component. For example, all 4 year students must complete our biology course that has a sustainability/ecology unit.

Environmental and sustainability concepts are integrated throughout the curriculum. (200 word max)

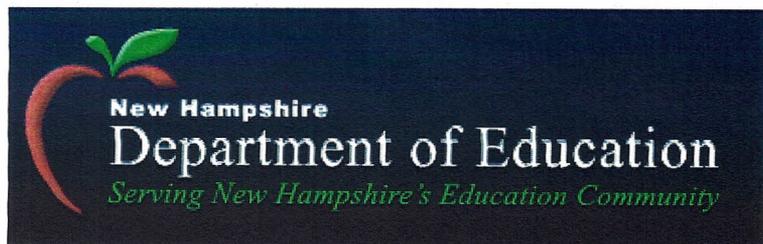
The school offers numerous sustainability focused courses and sustainability related courses found in the science department, history department, religion department, and English department. Students can also elect to study off campus in sustainability focused programs:

Courses include Global Ethics, Sustainability and Environmental Stewardship, Chemistry of the Environment, Human Populations and Resource Consumption, Ecology, Vulnerable Conquerors: Humans and the Environment, Modern Peoples and Cultures, Introductory Biology, Marine Biology, Ornithology, Animal Behavior, Earth Systems, AP Biology, Ethics and the Market Place, Why Poor Nations are Poor, Literature and the Land. The AP Statistics course also uses numerous data sets that are sustainability related

Lowers and uppers are eligible to study at the Island School on the shores of Cape Eleuthera, Bahamas for the fall term. This rigorous program focuses on sustainability and experiential and environmental education. The 48 students, who constitute the program's student body each term, come from different schools and live and study on the Island School campus. Students take courses in Land and Environmental Art, Literature of the Sea, Bahamian History, Celestial Navigation Marine Ecology, and Research. Students also participate in scuba, daily morning exercise, kayaking trips, community service, and island exploration

Several students each year also attend the Mountain School.

The program offers students the opportunity to enjoy a different living and learning experience, while at the same time maintaining a rigorous college-preparatory academic schedule. The school is located on a 300-acre farm in eastern Vermont and is intimate in size—45 students and 12 faculty members.



The purpose of the program is to provide students, through their studies, their work on the farm and in the forest, and their day-to-day life in rural New England, with a new understanding of their relationship with the natural world and the responsibility this relationship creates.

Environmental and sustainability concepts are integrated into assessments. (200 word max)

All of the courses listed above integrate sustainability and environmental concepts into assessments.

Students evidence high levels of proficiency in these assessments. (100 word max)

Admissions to Exeter is highly selective with a 16% admit rate. Our student body achieves at a very high level. Most of our graduates go on to attend the most selective universities in the country.

Professional development in environmental and sustainability education is provided to all teachers. (200 word max) Both the Dean of faculty Office and Departments have large funds for professional development. Faculty members are also given opportunities to lead sustainability related trips. In recent years faculty have led and/or participated in trips to Costa Rica, Honduras, India, China, Cambodia, Africa, and a South Dakota Indian reservation. All of these trips had a sustainability component. Faculty members also have worked at the Mountain School and Island School.

2. For schools serving grades 9-12, provide:

Percentage of last year's eligible graduates who completed the AP Environmental Science course during their high school career:

Our AP Environmental Science class is non-traditional in that we have three individual classes that a student can take that will mostly prepare them to sit for the AP test. We have many students that take only one or two of the elective classes (about 22% of Seniors) and thus do not sit for the exam. Most of our students choose to take more demanding AP science classes such as Biology, Chemistry and Physics, and thus there is no room in their schedule for AP Environmental Science.

Percentage scoring a 3 or higher: 100%, Avg=4.4 over last 5 years

3. How does your school use sustainability and the environment as a context for learning science, technology, engineering and mathematics thinking skills and content knowledge? (200 word max)

Environment is the context for learning marine biology, ecology and ornithology as all three are field courses and spend two hours each week in the field. In the Earth Systems course a whole unit is devoted to researching alternative energy sources. In the AP Statistics class, many of the data sets have an environmental context.

4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways? The sustainability lecture series brings in speakers that address the whole school about sustainability issues. For example, last year Bill McKibben (sustainability author and journalist), Will Allen (Urban agriculture), Amory Lovins (Energy expert), Tom Burack (Commissioner of NH DES) and Ken Kimmel (Commissioner of Mass DEP) all spoke to the entire student body. We also have a monthly Sustainability Film Series that helps students/faculty/community learn about environmental issues and possible career pathways.

5. Describe students' civic/community engagement projects integrating environment and sustainability topics. (200 word max)

E proctors-group of 60 representatives from dorms and day student population who educate their peers about environmental issues, carry out campus projects, and promote green behavior in dorms. Harold Ryan Society is a community service group that does beach and highway clean-ups. Farm and Garden Club visits local farms and plants and maintains campus garden. Environmental Action Committee does peer education and campus projects. 350.org Exeter Chapter organizes CO₂ reduction campaigns and demonstrations. *The Exchange* is a student-run second hand store. Profits are donated to charities.

6. Describe students' meaningful outdoor learning experiences at every grade level. (200 word max)

Freshman biology has numerous field trips in the spring and fall. Field courses (mentioned in question #3) have weekly outdoor field trips and lab work. Outdoor Challenge Program is a physical education option for those who want to learn about and experience outdoor recreation possibilities on and off of the PEA campus. Students participate in outdoor-skills training, cycling, camping, rock climbing, canoeing, orienteering, and hiking. Each fall before school starts all of the student leaders of the e proctors and the environmental action committee (EAC) are taken on a several day camping/leadership training trip.

7. Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills. (200 word max)

See question # 3. Also, entire student body participates in Community Action Day every year. Students clean parks, yards, plant gardens, plant trees, clean beaches, and do trail maintenance.

8. Describe your partnerships to help your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships. (Maximum 200 words)

8+1 Sustainability Coordinators group- a group of 9 boarding schools that meet 2 times per year to share progress and promote sustainability in each other's schools and beyond. This year we are planning collaborative projects at each school. Each sustainability project for students will be developed through a faculty-staff collaboration. We are also working on a School Assessment tool similar to STARS used at colleges and universities for tracking sustainability at our schools. It is a very effective group for providing leverage at our schools in order to get projects done. For example, Hotchkiss School recently put a farm on their campus and now we are using that information to help encourage our administrators to do the same on our campus. We also have a partnership with 350.org (chapter on our campus), Terracycle, Unitil, local Congregational Church for bringing in guest speakers, Adopt-A Highway, working with NH Department of



Fish and Game on trout in the classroom project and monitoring Exeter River. We also have a Sustainability Advisory Committee composed of faculty, staff and students from different parts of campus. We work on campus projects together to promote sustainability. We are members of the New Hampshire Chapter of the US Green Building Council and are actively working towards getting more schools involved with USGBC Green Schools and Green Apple Day of Service.

9. 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 on innovative or unique practices and partnerships. (Maximum 200 words)

Every year the Human Population and Consumption class carries out a service learning project on campus or in the local community. Examples of past projects include having a school wide hunger banquet to educate student body about world food distribution and food issues and a campaign to remove plastic bottled water on campus. The campaign eventually led to a complete removal of all plastic water bottles on campus. The Academy no longer sells water in plastic bottles or serves them at any events.

Narrative: Attach a narrative describing your school's efforts to reduce environmental impact and costs; improve student and staff health; and provide effective environmental and sustainability education (800 words maximum). Focus on unique and innovative practices and partnerships. Include up to 15 photos or up to 5 minutes of video content.

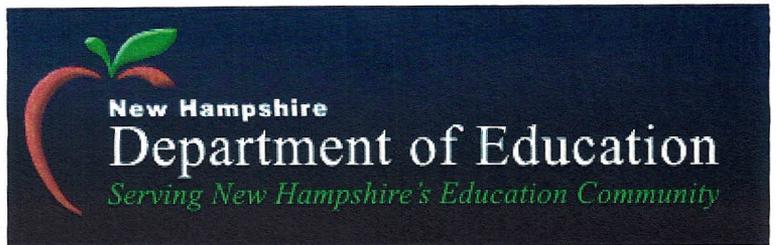
Phillips Exeter Academy has taken many steps to becoming a sustainable school. All of our efforts are guided by our commitment to our schools' environmental mission statement, and the core values of our facilities management team, which include "championing socially and environmentally conscious behavior".

Our statement of environmental mission is as follows:

Phillips Exeter Academy must be committed to stewardship of the environment. Recognizing we are all but one small part of the natural world, we must value, protect, preserve, and replenish natural resources. While our actions are local, our reach is global.

We must foster a culture of environmental awareness, which should be integral to our community in all venues of daily life, on and off campus—where we learn, where we work, where we live, and where we play. In practice, we need to respect our environment, reduce our consumption, and recycle to ensure that the natural resources we treasure are preserved and sustained for the future.

As an institution, our priorities, decisions, and actions will be informed by their environmental impact. We should pay particular attention to the use of our land, the construction and renovation of our facilities, our consumption of energy and other resources, and our choices of transportation.



The Academy must educate our entire community about environmental issues and sound environmental practices. To address that part of the Academy's mission that seeks to graduate young people "whose interest in others and the world around them surpasses their self concern," we must be vigilant in our efforts to prepare future generations for stewardship of the environment.

Through energy conservation, energy monitoring, carbon emissions reduction, use of renewable energy, recycling, composting, elimination of the use or sale of disposable plastic water bottles, water conservation, and best practices in natural resource management our school strives to reduce our environmental impacts and cost, as well as measure and analyze the impacts of our choices and use this information to make informed future decisions. Through an active program of physical fitness and nutrition, an annual Health Fair, as well as access to fitness facilities and outdoor recreation for students, staff, and faculty, we have a culture of health and fitness on our campus that extends from the gym to our daily meals in the dining halls. Finally, through a multi-faceted education program and curriculum, including opportunities for study at other schools with environmental programs and several partnerships with local, state, and federal government as well as state and non-profit agencies, we are reaching out to the broader community to both share our experiences in environmental stewardship and education and also learn from others.

We are including with this application the following link which provides pictures and a summary of our Sustainability and Stewardship programs on campus:

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