

U.S. Department of Education
Green Ribbon Schools 2012

For Public Schools only: (Check all that apply) Charter Title I Magnet Choice

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

Official School Name Radnor Middle School
(As it should appear in the official records)

School Mailing Address 150 Louella Avenue
(If address is P.O. Box, also include street address.)

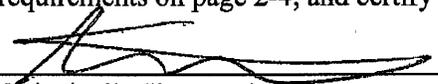
Wayne PA 19087
City State Zip

County Delaware State School Code Number* 1-25-237603

Telephone (610) 386-6300 ext. 6201 Fax (610) 688-2491

Web site/URL http://www.rtsd.org/radnorms E-mail Anthony.Stevenson@rtsd.org

I have reviewed the information in this application, including the award and eligibility requirements on page 2-4, and certify that to the best of my knowledge all information is accurate.


(Principal's Signature) Date 3/19/12

Name of Superintendent* Dr. Linda Grobman
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name* Radnor Township School District Tel. (610) 688-8100

I have reviewed the information in this application, including the award and eligibility requirements on page 2-4, and certify that to the best of my knowledge all information is accurate. I concur that this is one of the highest performing green school applicants in our state.


(Superintendent's Signature) Date 3/19/12

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

PART III – DOCUMENTATION OF STATE EVALUATION OF NOMINEE

Instructions to Nominating Authority

For the pilot year, the Nominating Authority must review nominated schools for high achievement based on the schools' *documented achievement* toward reaching the goals of each of the three U.S. Department of Education Green School Pillars and elements. For each school being nominated by the Authority to ED, please attach state (or equivalent) evaluation materials (application) based on the Nominating Authority Evaluation Support Framework provided by ED to facilitate your evaluation of schools.

The Nominating Authority must review and sign the following certification for each school being nominated to ED.

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 achieves or is one of those overseen by the Nominating Authority which comes the closest to achieving the goals of all three green Ribbon Pillars: 1) environmental impact and energy efficiency; 2) healthy school environments; and 3) environmental and sustainability education.
3. The Nominating Authority has evaluated the school and selected it for submission to the U.S. Department of Education from among those schools overseen by the Nominating Authority which have applied for a Green Ribbon, based on *documented achievement* toward the three Green School Pillars and Elements.
4. The school meets all applicable federal civil rights and federal, state, tribal and local health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating

Agency **Pennsylvania Department of Education**

Name of Nominating

Authority **Ronald J. Tomalis, Secretary of Education**

I have reviewed the information in this application, including the award and eligibility requirements on pages 2-4, and certify, to the best of my knowledge through a documentary verification assessment, that the school meets the provisions in this Part of the Nominee Presentation Form.

Ronald J. Tomalis Date 3/21/12
(Ronald J. Tomalis)

**Pennsylvania Public School Nominee:
Radnor Middle School, Radnor Township School District**

The Radnor Middle School (RMS) serves as a community model of commitment to a sustainable future in Radnor Township. Located 13 miles west of Philadelphia, RMS is the only green-roof Silver LEED (Leadership in Energy and Environment Design) certified school in the Delaware Valley, serving a diverse, multicultural population of approximately 1000 students. In 2007, the 194,822 square-foot facility was built in the town of Wayne with the latest technologies for lowering energy and operating costs, while improving air quality. Affectionately known as “the school with a heart in the heart of Wayne,” RMS is an energy efficient, high performance learning community as well as a healthy, comfortable and stimulating environment for students and staff.

By using geothermal heat pumps, the middle school saves approximately 2,500 gallons of public water annually and eliminates more than 100 tons of carbon dioxide production. Heat and motion sensors turn off lights in empty classrooms. When adequate natural light is present, light sensors shut off overhead lights. The building’s T-5 fluorescent bulbs have been proven to improve student productivity.

Waterless urinals and low-flow faucets save public water during the school year. Our rain gardens planted with native wetland plants absorb substantial amounts of water. Pervious paving with its own groundwater-recharge system returns rain water back to the natural aquifer. Radnor Middle School students cultivated succulent plants from the school’s green roof and wetland native plants from the rain garden to enter classes at the 2012 Philadelphia Flower Show.

The use of non-VOC (Volatile Organic Compound) paints, adhesives and non-toxic cleaning supplies are not only best management practices, but also provides relief to those with asthma and allergies.

Radnor’s recycling program is changing students’ resource consumption habits; the District recycles about 220 tons of material per year and collaborates with township residents to recycle paper through a fundraising with ABITIBI, a paper recycling company. Recycled materials were used as part of the new construction process and finish components such as carpets, ceiling tiles, counters and tack boards. The terrazzo floor in the lobby contains recycled glass aggregate. Approximately 85 % of all construction waste for both construction and demolition was diverted from landfills and recycled. The purchase of manufactured goods within a 500-mile radius reduced transportation pollution during construction.

In 2008, the District’s department of transportation switched to biodiesel fuel, a cleaner-burning, renewable diesel fuel made from vegetable oils. Running 64 vehicles on the renewable fuel has resulted in substantial emissions reductions. Middle school students have made informative “no-idling” signage for carpool lines.

Our building is well integrated with Wayne’s downtown business district and nearby

residential neighborhoods. Many students and staff not only walk or bike to school, but also walk into town after school. Students have interviewed local businesses who purchase energy “off the grid” and local restaurant owners who serve local organic food.

Our building has had a positive impact on both the health and performance of students and staff. Outdoor exercise, sports programs, and trips to environmental centers expose students to nature, fresh air and exercise.

In collaboration with Greener Partners, a local food program, students worked to set up two CSAs and participate in a Seed-to-Snack education program with an urban school. After reading Michael Pollan’s *Omnivores Dilemma, Young Readers Edition*, students were inspired to establish a school wide initiative called BLOM (Big Local Organic Movement), a week of organic sustainable eating with a BLOM blog to coincide with Earth day activities.

Current initiatives include creating a year-round vegetable garden as well as building a green house. Students will be planting native species to attract butterflies and birds for a National Wildlife Federation habitat site. Appropriate educational signage developed by students will accompany these initiatives.

RMS strives to have environmentally literate students who can take lessons learned to high school and beyond. By exploring a curriculum around our green features, students get a first-hand look at the effects of an environmentally sustainable design. A “green touch screen” in our lobby serves as an interactive educational resource on the school’s green features. Our “virtual” classroom allows us to connect with students and educators worldwide who share a commitment to the environment; we can take field trips without fuel.

Students have environment and ecology themes embedded throughout the traditional science and technology courses, as well as in the integrated programs and 8th grade STEM (Science, Technology, Engineering, and Mathematics) program to meet PA Environment and Ecology Standards. The internationally recognized Watershed Program has been a blueprint for green ribbon teaching through its integrated environmental literacy activities for 25 years.

We are very proud of our middle school as we reflect on our strengths and accomplishments; we continually seek new ways to promote sustainable education as we engage and prepare our students to be citizens of the 21st century.

Green Ribbon Schools Application

Response ID: 201 Data

1. Page One

Thank you for your interest in the Green Ribbon Schools program.

All public and private schools in Pennsylvania, including charter schools, career and technical centers, and schools operated by intermediate units, are eligible to be considered for nomination.

This application has been developed for individual schools to complete. More than one school per school district is permitted to apply. In order to complete this application, you will need to collect extensive data about your school's facility, health and safety policies, food service, and environmental and sustainability curriculum and assessment. This online tool allows you to save your work and return to the application as necessary.

Introduction: The U.S. Department of Education's Green Ribbon Schools (ED-GRS) award is intended to recognize those schools taking a comprehensive approach to greening their school. A comprehensive approach incorporates and integrates environmental learning with maximizing positive environmental and health impacts. The award criteria are intended to focus on measurable outcomes wherever possible. For more information on Green Ribbon Schools, please visit www2.ed.gov/programs/green-ribbon-schools.

As part of this effort to promote a comprehensive approach to creating green and sustainable schools, the Pennsylvania Department of Education launched the Pathways to Green Schools initiative last year with a statewide virtual conference and a program website. The Pathways website includes information from various state agencies about the resources, grants and programs available to assist schools to become more cost-efficient and environmentally friendly places of learning. It also includes a number of "best practice case studies" from schools across the Commonwealth. For more information about the Pennsylvania Pathways to Green Schools initiative, visit www.pathwaystogreenschools.org.

Application: Being nominated as a Green Ribbon School is a two-step process. Using this application tool, public, charter and private schools in Pennsylvania will make their application for nomination to the Pennsylvania Department of Education (PDE).

Applications will be reviewed and scored, using the guidelines detailed in the next section.

As the chief state school officer, Secretary Tomalis is permitted to nominate up to four schools to the U.S. Department of Education. If more than one public school is nominated, one must have a 40 percent disadvantaged population (as defined in the next section of this application). If four schools are nominated, one must be a private school. All schools must meet high college- and career-ready standards, be in compliance with federal civil rights laws, and all federal, state and local health and safety standards and

regulations.

Green Ribbon Schools Criteria: Application reviews will be based on the applicant's demonstrated progress towards the goals of each of the three ED-Green Ribbon Schools Pillars:

Pillar I goal: The school has reduced its environmental impact, and is working towards net-zero impact.

Pillar II goal: The school has a positive impact on the health and performance of students and staff

Pillar III goal: The school's graduates are environmentally and sustainability literate

Four items are important to keep in mind as you consider applying to become a nominee:

1. These are ambitious goals and few if any schools are expected to have achieved all three, or perhaps even 100% of any one of the pillars.
2. Schools demonstrating exemplary achievement in all three Pillars will receive the highest ranking.
3. It is important to demonstrate concrete achievement, using quantified measures, whenever possible.
4. If your school is being actively considered, additional documents supporting your answers may be requested.

As you'll see in the application form below, the Pennsylvania Department of Education (PDE) has broken down each Pillar into "Elements" in order to provide more detail and explanation for what is meant by each Pillar. Each Element then has a series of questions which will demonstrate the progress made in achieving these goals. Some questions have been grouped together into categories for the sake of clarity and organization.

Once you begin your application, you may save it and return to it at any time.

Application Deadline: You must submit your application no later than 6PM on Thursday, February 23, 2012.

While not required, we ask that you notify PDE of your intent to submit an application, once that decision has been made. You can email us at ra-greenschools@pa.gov

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By checking the boxes below, the school principal (or equivalent) certifies that each of the statements concerning the school's eligibility and compliance with the following requirements is true and correct.

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.) Note: All public and private schools in Pennsylvania are

eligible, including charter schools, career and technical centers (CTC) and schools operated by intermediate units (IU).

- ✓ The school achieves or comes close to achieving the goals of all three Green Ribbon Pillars: 1) environmental and sustainability education; 2) healthy school environments; and 3) environmental impact and energy efficiency.
- ✓ The school is in compliance with all applicable occupational safety and health standards and has no outstanding citations for violation of federal, state, or local occupational safety and health regulations and standards.
- ✓ The school is in compliance with all applicable federal food and drug standards, including the Federal Food, Drug, and Cosmetic Act and has no outstanding violations.
- ✓ The school is in compliance with all applicable state and local codes and has no outstanding citations for state or local environmental, health, existing building, fire, plumbing, mechanical, or property maintenance codes, laws, or regulations.
- ✓ The school has not been cited within the past three years for failure to meet federal, state or local potable water quality standards.
- ✓ The school has not been cited within the last three years for improper management of hazardous waste according to federal and state regulations.
- ✓ Neither the applicant 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.
- ✓ OCR has not issued a violation letter of findings to the public school district concluding that applicant 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 plan to remedy the violation.
- ✓ 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.
- ✓ 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.
- ✓ The school and the district meet applicable federal, state, and local health, environmental and safety requirements in law, regulations, and policy.

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School Contact Information

School Name

Radnor Middle School

School District (if applicable)

Radnor Township School District

Street Address

150 Louella Ave

City

Wayne

State

PA

Zip

19087-4182

School Website

www.rtsd.org

Principal First Name

Anthony

Principal Last Name

Stevenson

Principal Email Address

anthony.stevenson@rtsd.org

Principal Phone Number

610 386 6300 ext 6201

Lead Applicant First Name (if different from principal)

Banny and Jon

Lead Applicant Last Name (if different from principal)

Ackerman and Savitch

Lead Applicant Email

banny.ackerman@rtsd.org; jon.savitch@rtsd.org

Lead Applicant Phone Number

610 386 6300 ext 7210

Level

Middle (6 - 8 or 9)

School Type

Public

How would you describe your school?

Private/Independent

AUN Number

1-25-23-760-3

Building Number

54

Does your school have at least 40 percent of your students from a disadvantaged background? (students who are eligible for free and reduced-price school meals, students with disabilities, who are limited English proficient, migrant, or receiving services under Title I of the Elementary and Secondary Education Act)

No

Application Outline:

Green Ribbon Pillars and Elements

Points

Cross-Cutting Questions: Participation in Green School Programs and/or Awards for Environmental and Sustainability Efforts

5 points

PILLAR ONE: Reduced environmental impact: 30%

Element 1A: Working towards zero greenhouse gas (GHG) emissions

15 points

Buildings

Energy

Element 1B: Use of alternative transportation to, during, and from school 5 points

Element 1C: Improved water quality, efficiency, and conservation 5 points

Water

Grounds

Element 1D: Reduced waste production 5 points

Waste

Hazardous waste

PILLAR TWO: Positive impact on student and staff health: 30%

Element 2A: An integrated school environmental health program 15 points

Integrated Pest Management

Contaminant controls and Ventilation

Asthma control

Indoor air quality

Moisture control

Chemical management

Element 2B: High standards of nutrition, fitness, and quantity of quality outdoor time 15 points

Fitness and outdoor time

Food and Nutrition

Ultra Violet (UV) safety

PILLAR THREE: The school's graduates are environmentally and sustainability literate:
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 engagement knowledge and skills 10 points

TOTAL 100 points

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Q CC1: Is your school participating in a nationally recognized green school program which asks you to benchmark progress in some fashion (for example, USGBC LEED for Schools, Green Globes, Project Learning Tree's Green Schools, or National Wildlife Federation Eco-Schools USA)?

Yes

Which program(s) are you participating in and what level(s) have you achieved?

USGBC LEED Silver Certification

Q CC2: Has your school, staff or student body received any awards for environmental or sustainability stewardship/action?

Yes

Please list the awards you have received and the years you received them.

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Pillar 1: Environmental Impact and Energy Efficiency

Buildings, grounds and operations goal: The school has reduced its environmental impact and is working towards net-zero impact (zero carbon, solid waste, and hazardous waste footprints).

Pillar 1 includes four main elements:

A) Reduced greenhouse gas emissions, using an energy audit or emissions inventory and reduction plan, cost-effective energy efficiency improvements and on-site renewable energy and/or purchase of green power.

B) Improved water quality, efficiency, and conservation.

C) Reduced solid waste production, through increased recycling, reduced consumption, and improved management, reduction, or elimination of hazardous waste stream.

D) Expanded use of alternative transportation to, during and from school, through active promotion of locally-available options and implementation of enabling projects and policies.

Each question in this section is designed to measure your school's progress towards Pillar 1 and its associated 4 elements.

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Q 1A1: In what year was your school constructed?

2007

Q 1A2: What is the total building area of your school?

195,000 Square Feet

Q 1A3: Has your school constructed a new building or renovated an existing building in the past ten years?

Yes

Please provide the following information:

Percentage of the building area that meets green build standards (for example, LEED, CHPS, Green Globes or other standards)

: 100%

Which certification did you receive and at what level? : USGBC LEED Silver

What is the total constructed area? : 195,000 Sq. Ft.

What is the total renovated area? : 0

Q 1A4: Do any parts of your existing buildings meet green build standards (for example, LEED, CHPS, Green Globes, or other standards)?

Yes

Please provide the following information:

What percentage of the existing building area has achieved green build standards (LEED, CHPS, Green Globes, or other standards)? : 100%

What is the total building area (in sq. ft.)? : 195,000

Which certificate did the school receive and at what level? : LEED Silver

Q 1A5: Please indicate which green building practices your school is using to ensure your building is energy efficient.

Other (please describe): Uses building automation system

School Building has been assessed using the Federal Guiding Principles Checklist in Portfolio Manager.

Q 1A6: Has your school received EPA ENERGY STAR certification or does it meet the requirements for ENERGY STAR certification?

Yes

If your school received the certification, please note the year it was achieved and the score received:

2012, 85

Q 1A7: Has your school reduced its total non-transportation energy use from an initial baseline?

Yes

Please provide the following information:

Percentage reduction : 15%

Measurement unit used (kBtu/square foot, kBtu/student, annual therms, etc.) : kBtu/square foot

Time period measured (mm/yyyy - mm/yyyy) : 9/2007 to 12/2011

How did you document this reduction (ie. ENERGY STAR portfolio, district report)? : ENERGY STAR portfolio

Q 1A8: What percentage of your school's energy is obtained from:

On-site renewable energy generation (i.e. solar, wind, biomass) : Geo-thermal on site is renewable

Purchased renewable energy : 0

Q 1A9: Can your school demonstrate a reduction in its Greenhouse Gas emissions?

Yes

Please provide the following information:

Initial GHS emissions rate (MT eCO₂/person) : 1.28

Final GHG emissions rate (MT eCO₂/person) : 1.08

Percentage reduction : 16%

Time period measured (mm/yyyy - mm/yyyy) : 9/2007 to 12/2011

How did you document this reduction (e.g., the inventory module from Clean Air Cool Planet's Campus Carbon Calculator, EPA Portfolio Manager)? : EPA Portfolio Manager

Q 1A10: Does your school reduce and/or offset the greenhouse gas emissions from building energy use?

Yes

Please provide the following information:

List offsets used : Energy Reduction via DDC Control System

Current total GHG emissions (MtCO₂e) : 973.16

Baseline total GHG emissions (MtCO₂e) : 1156.48

Change from baseline : 183.32

Time period measured (mm/yyyy - mm/yyyy) : 9/2007 to 12/2011

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Q 1B1: What percentage of your students walk, bike, bus, or carpool (2 + student in the car) to/from school?

Since our new middle school is right in the town of Wayne, almost 12% of our students walk or ride bikes to school

Q 1B2: How was this data collected and calculated? (Maximum 100 words)

Talking to Radnor's Transportation Director, Burt Blackburn, who keeps records of students who regularly ride the bus, car pool

or walk/ride to the middle school. 4,400 total Radnor students ride the school bus on 64 vehicles using renewable fuel (bio-diesel) - that is students from one high school, our middle school (900 students) and 3 elementary schools. Jon Savitch and Banny Ackerman check off incoming buses each morning to the middle school to keep accurate records, help to enforce the no-idling practice and welcome students to school. 14 new reduced emission buses have been added to the fleet this year.

Q1B3: Which of the following policies or programs has your school implemented:

- Our school has designated carpool parking stalls.
- Our school has 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.
- Our school promotes bike/ped programs.
- Our school participates in a "Safe Routes to School"
- Our school has established Safe Pedestrian Routes to school which are distributed to parents and posted in our office.

Q1B4: Describe how your school transportation use is efficient and environmentally benign (e.g. the percentage of school-owned electric/hybrid/alternative fuel vehicles in your fleet, or other indicators of significant reductions in emissions):

April 4th, 2008 /PRNewswire/-- Environmental Protection Secretary Kathleen McGinty praised the Radnor Township School District for its decision to use biofuels in its 64 diesel-powered vehicles. A \$40,000 Alternative Fuels Incentive helped purchase nearly 94,000 gallons of diesel fuel blended with 20 % bio-diesel (B20). McGinty said the switch was an example of leadership by the Delaware County district which helps the nation reduce its dependence on foreign oil at a time when record-high fuel prices are draining budgets of our communities, families, and businesses. 14 new buses with low emission technology have been added to the fleet this year.

Q1C1: Can you demonstrate a reduction in your school's total water consumption (measured in gallons/occupant) from an initial baseline?

No

Please provide the following information:

Q1C2: Which of the following practices does your school employ to increase water efficiency and ensure water quality? (Please check all that apply)

- Our school conducts annual audits of the facility and irrigation systems to ensure they are free of significant water leaks and to identify opportunities for savings.
- Our school has a smart irrigation system that adjusts watering time based on weather conditions.
- Our school's landscaping is water-efficient and/or regionally appropriate.
- Taps, faucets, and fountains at our school are cleaned at least twice annually to reduce contamination and screens and aerators are cleaned at least annually to remove particulate lead deposits.
- Our school has a program to control lead in drinking water (including voluntary testing and implementation of measures to reduce lead exposure).
- Our school has implemented stormwater best management practices and/or low-impact development strategies (i.e. rain gardens, vegetated swales, pervious paving, rainwater harvesting, green roofs).

Please provide the following information about your school's landscaping

- What percentage of your total landscaping is considered water-efficient or regionally appropriate? : Rain garden ,30% vegetated "green roofs"
- What types of plants are used and where are they located? : Variety of sedum species used on vegetated roofing and general landscape; native plants in rain garden.

Please describe the alternate water sources used for irrigation or toilet flushing. (Maximum 100 words)

Please describe the program you have in place to control lead in drinking water. (Maximum 100 words)

A requirement of construction was no use of lead solder and testing is performed by the source provider.

Please describe your best management practices for stormwater. (Maximum 200 words)

The school uses vegetated roofing, multiple pervious pavement parking spaces with subsurface groundwater recharge systems, a rain garden and a field of subsurface rain collection baskets. Cahill Associates developed several mitigation

measures at the middle school for alleviating local flooding (upstream and down) and managing increase in run-off. The final design uses two underground storage systems, one of which is within the existing basement in the former school building. Recycling is an essential component of the sustainability equation. The crushed brick and concrete from the former middle school was used as fill to contribute to the storm-water management system. This helped retain the storm water on-site by letting it infiltrate into the ground water, rather than traveling down stream to flood houses at low levels in the district. By using geothermal heat pumps, Radnor Middle School is saving approximately 2,500 gal. per year of public water. The use of waterless urinals allows the middle school to use 324,000 gal. less public water per 180-day school year.

Q1C3: Our school's drinking water comes from:

Municipal water source

Please describe how the water source is protected from potential contaminants. (Maximum 100 words)

Q1C4: Please describe any additional progress your school has made towards improving water quality, efficiency, and conservation. (Maximum 200 words)

The geothermal heating and cooling system uses a series of 144 500-foot deep wells transferring thermal energy to and from the ground using no fossil fuels and no harmful greenhouse emissions. The school also has heat and motion sensors to help conserve energy by turning off lights when there is enough natural light. Waterless urinals and motion activated sinks help reduce water use. Classroom carbon dioxide monitors release more fresh air if the level becomes too high. Recycled materials for floors, carpets, ceiling tiles, and tack board were used. For example, the lobby floor used recycled glass shards. Using local and regional manufactured goods within a 500 mile radius of Radnor helped reduce the cost of transportation pollution during construction. A goal to recycle waste during construction resulted in 85% of waste by weight diverted from landfills to recycling. Native plants in the rain garden absorb substantial amounts of rain water through a ground water recharge system, which exists under the bus loop and parking areas. The vegetated roof gardens provide evapotranspiration and a reduced heat island effect. The gardens absorb water, cool the building and give us oxygen.

Q1C5: What percentage of the school grounds are devoted to ecologically or socially beneficial uses (school vegetable garden, wildlife or native plant habitats, outdoor classroom, environmental restoration projects, rain garden, pervious walking or running trails, etc.)?

100% of our site could be classified as ecologically or socially beneficial, from the large play spaces to the green roofs, rain garden, native trees and shrubs, porous driveways and parking and raised bed vegetable gardens. Our Watershed outdoor classroom restores local streambanks in local community parks.

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Q1D1: What percentage of solid waste is diverted from landfilling or incinerating due to reuse, recycling and/or composting (i.e. Recycling Rate)?

A - Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected) : 6yds. X 4 per mo. 100% filled

B - Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected) : 6 yds. X 4 per mo. 100% filled

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 = $(B + C) \div (A + B + C) \times 100$: 50%

Q1D2: Does your school have a composting system?

Yes

Q1D3: Please provide the following information about your school's hazardous waste:

How much hazardous waste does your school produce (lbs/person/year)? : 100 lbs. total or approx. .1 lb./person/year

How is the amount generated calculated? : review of manifests

List the types of hazardous waste generated : paints, finishes, chemicals

How is hazardous waste monitored? : semi-annual assessments

Q1D4: Which of the following benchmarks has your school implemented to minimize and safely manage hazardous

waste? (Please check all that apply)

Our school disposes of unwanted computer and electronic products through an approved recycling facility or program.

List the green cleaning standard(s) used?

Q1D5: Does your school use "third party certified" green cleaning products?

Yes

Please provide the following information about the green cleaning products used in your school:

What percentage by volume of all cleaning products in use are "third party certified" green cleaning products? : 60%

What specific green cleaning product standard (Green Seal, Ecologo, etc.) does the school use? : Green Seal

Q1D6: What other indicators do you have of your school's reduction of solid waste and elimination of hazardous waste? (Maximum 200 words)

Because of a stringent Integrated Pest Management Program, no synthetic chemical wastes are produced due to pest removal or landscape care. Radnor uses no VOC paints and finishes in its operations and maintenance programs. Radnor recycles approximately 2 tons of paper waste a month and also has bins for community township paper recycling. We generate approximately 6 yards of trash per day. Glass, plastic, paper, cardboard, and metals are removed prior to disposal for recycling. Recycling materials get sorted by a private hauler and are sold for re-use. The paper is sold to a paper recycler.

Q1D7: This is the end of Pillar 1. Please describe any other accomplishments or progress your school has made towards reducing/eliminating environmental impacts or improving your energy efficiency. (Maximum 200 words)

Our middle school has paper recycling bins and food services is looking to purchase a densifier next year for composting. We utilize 100% natural and organic lawn care services, eliminating the use of synthetic herbicides and pesticides.

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Pillar 2: Healthy School Environments

Healthy student and staff environment goal: The school improves the health and performance of students and staff.

Pillar 2 includes two main Elements:

A) An integrated school environmental health program based on an operations and facility-wide environmental management system that considers student and staff health and safety in all practices related to design, construction, renovation, operations, and maintenance of schools and grounds.

B) High standards of nutrition, fitness, and quantity of quality outdoor time for both students and staff.

Each question in this section is designed to measure your school's progress toward Pillar 2.

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Q2A1: Which of the following practices does your school employ with regards to pest management? (Please check all that apply)

Our school has an integrated pest management plan in place to reduce and/or eliminate pesticides.

Pest control policies, methods of application, and posting requirements are provided to parents and school employees.

Copies of pesticide labels, copies of notices, MSDS and annual summaries of pesticide applications are all available and in an accessible location.

Our school prohibits children from entering a treated area for at least 8 hours after the treatment or longer if required by the pesticide label.

**Q2A2: Which of the following practices does your school employ to improve contaminant control and ventilation?
(Please check all that apply)**

- Our school has a comprehensive indoor air quality management program that is consistent with Indoor Air Quality (IAQ) Tools for Schools.
- Our school meets ASHRAE Standard 62.1-2010 (Ventilation for acceptable indoor air quality).
- Our school has installed one or more energy recovery ventilation systems to bring in fresh air while recovering the heating or cooling from the conditioned air.
- Our school has eliminated mercury-containing thermometers, chemical compounds, art chemicals, etc. and elemental mercury.
- Our school disposes of any unwanted mercury laboratory chemicals, thermometers and other devices in accordance with federal, state, and local environmental regulations.
- Our school has CO alarms that meet the requirements of the National Fire Protection Association code 720.
- There are no wood structures on school grounds that contain chromate copper arsenate.
- Our school visually inspects all structures on a monthly basis to ensure they are free of mold, moisture, and water leakage.
- Our school's indoor relative humidity is maintained below 60%.
- Our school has moisture resistant materials/protective systems installed (ie. flooring, tub/shower, backing, and piping).
- Our school has a chemical management program that includes: chemical purchasing policy (low or no-VOC products), storage and labeling, training and handling, hazard communication, spills (clean up and disposal), and selecting EPA's Design for the Environment approved cleaning products.
- Our school prohibits smoking on campus and in public school buses.
- Our school has an asthma management program that is consistent with the National Asthma Education and Prevention Program's (NAEPP) Asthma Friendly Schools guidelines.
- If your school has combustion appliances, is there an inventory of them and are they annually inspected to ensure they are not releasing Carbon Monoxide? (yes/no/no combustion appliances): no combustion appliances

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**Q2B1: Which practices does your school employ to promote nutrition, physical activity and overall school health?
(Please check all that apply)**

- Our school partners with local food growers to supply produce.
- Our school has an onsite food garden.
- Our students spend an average of at least 120 minutes per week (over the past year) in school supervised physical education.
- Our school participates in the USDA's Healthier School Challenge or another nutrition recognition program.
- At least 50% of our students have participated in the EPA's Sunwise program (or other equivalent UV protection and skin health education program).

Please list your school's USDA Healthier School Challenge award level or describe other nutrition program. (Maximum 100 words)

Radnor is part of the National School Lunch program/breakfast (NSLP). This is a federally mandated and funded organization that sets standards and guidelines for the amount of food we sell (portions) along with the amount of fat, sugars, etc. We also belong to an organization called the Mid-Atlantic Dairy Council. This organization promotes milk and milk products such as cheese and yogurt to promote healthier teeth and bones. The council provides posters and samples; we report on a monthly basis the amount of dairy the school is purchasing. Radnor is part of a buying group called ESPN. Regulations state that our products come from the USA. The cafeteria at the middle school will be participating in a student driven seed-to-table project with raised beds for herbs and organic vegetables this spring. Plans are underway to have a pizza ingredient garden. Three beds have been in place for a year. One has strawberries, the other two raised the "three sisters": beans, corn and squash this fall.

Please describe the type of outdoor exercise opportunities and nature-based recreation available to students. (Maximum 200 words)

Weather permitting, our students are outdoors for physical education. Students have PE either 2X a week or 3X a week for 1/2 the year and health education the other 1/2 of the year. Professional speakers are scheduled throughout the year for health classes and the entire student body to cover health and nutrition topics and relevant health issues for adolescents. Students participate in many after school sports programs, including yoga classes, a running club as well as various after school club activities which focus on service and community. Grade levels attend nature-based 1-3 day environmental outdoor programs

usually during the early weeks of the school year. For example, 5th graders attend Camp Canedensis, 7th graders go to Paradise Farms, 8th graders go to Sandy Hill on the Chesapeake. Students participate in community team building activities as well as environmental education programs. The 7th grade Watershed students participate in a full year integrated environmental sustainable class. 25 years ago, Watershed founders, Mark Springer and Ed Silcox, began the program as a nature-based outdoor experience on the Brandywine River concerned with nature's interrelationships; the program has encouraged and helped to mentor students as well as other educators.

Q2B2: What percentage (by cost) of food purchased by your school is certified as "environmentally preferable" (e.g. Organic, FairTrade, Food Alliance, Rainforest Alliance, etc.)?

0

Q2B3: This is the end of Pillar 2. Please describe any additional progress your school has made in terms of the school's built and natural environment (including unique community and/or business partnerships) to promote overall student and staff health and safety. (Maximum 200 words)

We partner with Greener Partners a local non-profit organization connecting communities through food, farms and education. Students helped to create two local CSAs, participate in the Seed-to-Snack and SOL food programs serving "underserved" students in local Norristown and Chester communities and Philadelphia. We have active memberships in local and state organizations; we perform workshops and present to many local environmental stakeholders. We have participated with NESEA - Northeast Sustainable Energy Association to develop statewide Environmental Education curriculum. We also participate with the local Environmental Education Council to promote environmental education. We also participate with the Partnership for the Delaware Estuary at a Philly Coast Day Booth at Penn's Landing every September, Brandywine Conservancy and the Darby Creek Valley Association. Students monitor water quality, take biotic indexes and collect data and take part each year in the PA Earth Day Snapshot of water quality. We also participate with Delaware Valley Earth Force by participating in the Youth Summit each year. We attend and present at the PASA Conference (Pennsylvania Association for Sustainable Agriculture Conference) and the PAEE Conference (Pennsylvania Association for Environmental Educators) and the Philadelphia Flower Show.

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Pillar 3: Environmental and Sustainability Education

Student achievement goal: The school's graduates are environmentally and sustainability literate.

Pillar 3 includes three main Elements:

- 1) Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems.**
- 2) Use of the environment and sustainability to develop STEM content knowledge and thinking skills to prepare graduates for the 21st century technology-driven economy.**
- 3) Development of civic engagement knowledge and skills, and students' application of these to address sustainability and environmental issues in their community.**

Each question in this section is designed to measure your school's progress toward Pillar 3.

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Q3A1: Is your school district's curriculum aligned to the Pennsylvania Environmental and Ecology standards?

Yes

Q3A2: Which practices does your school employ to help ensure the environmental and sustainability literacy of your graduates? (Please check all that apply)

Environmental and sustainability concepts are integrated into classroom based and schoolwide assessments.

Professional development opportunities in environmental and sustainability education are provided for all teachers. Environmental and sustainability concepts are integrated throughout the curriculum.

Please describe your school's environmental or sustainability literacy graduation requirement. (Maximum 200 words)

Please describe your classroom based or schoolwide assessments in environmental and sustainability concepts and include what percentage of students scored "proficient" or better. (Maximum 200 words)

Students in the middle school integrated programs (Watershed, Crossroads, Soundings and STEM), as well as in the traditional teams, through their involvement with environmental and sustainable best management practices (BMP). Computer automation and design, electronic circuitry, robotics, and technical drawing are some of the topics that are assessed through rubrics, student-teacher conferences, self-assessments and grades. Students participate first hand in water quality monitoring, conferences and public speaking engagements such as Future Cities, an alternative fuel unit, Energy and the Environment such as creating a Penguin Dwelling, a lab using KidWind to explore wind power, a Biome project, and creating a sustainable village. Up-to-date data is collected, records are kept, labs and news articles are written. Students perform above average on class as well as standardized tests. Traditional papers, multi-media presentations, labs, quizzes and tests are also part of the curriculum. The 8th grade students will be taking the standardized science assessment (PSSA).

Please describe professional development opportunities available in environment and ecology standards. Include the percentage of teachers who participated in these opportunities over the past 2 years. (Maximum 200 words)

10% of Radnor Middle school teachers participate in professional development. We have NSTA and AMLE memberships. We attend conferences at and consult with University of Pennsylvania, Bryn Mawr College, Widener University, Lincoln University, West Chester University and Villanova University among others. Radnor Middle School teachers are "Sustainable Fellows" with West Chester University and the Aceer Foundation - The Amazon Center for Environmental Education to develop an international sustainable school curriculum for schools in Peru. We participate with the Environmental Consortium of Hudson Valley Colleges and Universities for River Summer on the Hudson with Lamont- Doherty and Columbia University. Teachers received training under the auspices of PLTW Project Lead the Way, NSF Nanotechnology, National Lab Day (Drexel University). Teachers also completed courses in atmospheric sciences (NOAA), Boeing Educators to Space Program, astrobiology (NASA). Radnor Middle School continually hosts environment and sustainable conferences, meetings and visits with colleagues from other schools and universities with tours of the building and workshops. Leo Bernabei, Director of Operations, frequently speaks to Radnor students. He also provides lectures and tours for many organizations. Dr. Rob Travers, Villanova University, speaks about storm water management to our students.

Q3A3: If your school serves grades 9-12, please provide the following information:

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

Percentage of these students who scored a 3 or higher on the AP Environmental Science exam : Students take the AP chemistry, biology, physics exams

Q3B1: Do your school's science courses frequently use sustainability and the environment as a context for learning science (such as asking questions, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructing explanations, and engaging in argument from evidence when exploring environmental and sustainability issues)?

Yes

Please describe. (Maximum 200 words)

While several grade levels focus on sustainable environmental issues more than others, all students participate in readings and discussions about relevant connections to the environment and sustainability through problem solving, creating models, discovery based investigations, labs, analyzing and synthesizing data and formulating solutions and conclusions. Mock trials, debate and presentations using higher level thinking skills are examples of activities. Creating a metaphor for a biochemical cycle using simple machines is an example of an "outside the box" group project, so is taking on the role of a limnologist and writing a paper about the health of the local stream. Students have biome fairs; one class creates a mock sustainable town for 500 - 1,000 people with a "green" blueprint, measured to scale, complete with a water source and waste water management plan, renewable resources and affordable "green" construction. Guest speakers visit classrooms to share their expertise. During the sustainable communities unit, an environmental engineer spends a day reviewing and providing feedback to each group's blueprint, making sure they are feasible and accurate before construction can begin.

Q 3B2: Since green/sustainable concepts cross curriculum areas, where within the following standards content are they being taught, at what grade levels and what main resources are being used?

	What Standard Areas	Main Content Addressed	Grade Levels	Main Resources
1	Env. and Ecology 4.2, 4.4, 4.8, Science, LA. History, Math, technology standards are also integrated with this content	Global issues and Viewpoints of American History	9-12	Primary source material, current periodicals, speakers, field trips
2	Env. and Ecology 4.2, 4.4, 4.8 LA, SHistory, Science are integrated as well	Contemporary American Studies	9-12	Primary sources, texts, periodicals, speakers
3	Env. and Ecology 4.2, 4.8	PLTW - Alternative Fuel	10-12	Text, periodicals, multi-media
4	Env. and Ecology 4.2, 4.5, 4.7	Alternative fuels, endangered species, pest management	6	Periodicals, on line resources, Glencoe texts
5	Env. and Ecology 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9	Integrated Watershed Program encompasses an entire year of study integrating aspects of environment and ecology and sustainable education surrounding the Watershed	7 Watershedded	Periodicals, primary sources, outside speakers, projects WET and WILD, leaf packs from Stroud Water Research, DCNR resources, PA Fish and Wildlife Trout in the Classroom partnership with 2nd grade class
6	Env. and Ecology 4.1, 4.2, 4.3, 4.4	Ecology and Environment study of the Chesapeake Bay	8 - all students	The water Planet - Glencoe, Periodicals, on line resources 3 day field trip to Sandy Hill Environmental program
7	Env. and Ecology 4.3, 4.4, 4.5	Stem PLTW	8 and 9-12	periodicals, kits, speakers, presentations, future Cities
8	Env. and Ecology 4.1, 4.2, 4.4, 4.5, 4.5	Biomes	7	periodicals, speakers, presentations, Glencoe texts

Q 3B3: Does your school have a STEM curriculum and/or coordinator?

Yes

Please explain. (Maximum 200 words)

We have a Project Lead the Way STEM curriculum and 2 coordinators, Beth Zigmont and Andy Achenbach in 8th. PLTW is a national organization that provides enrichment in math, science, engineering and technology, The PLTW hands-on, project based problem-based approach adds relevance to traditional academics across all disciplines. The high school PLTW program started in 2005, currently has over 225 students studying courses in Civil Engineering and Architecture, Aerospace Engineering and Introduction to Design Engineering. Leo Bernabei meets with PLTW students from RHS to review green building attributes and technologies; he has also given tours to various high school students from across the region as they prepare to enter environmental science courses in their college careers.

Q 3B4: Has the school's use of green building materials, alternative or renewable energy sources or green technologies, been incorporated into the curriculum and/or utilized by teachers and students in the classroom?

Yes

Please explain. (Maximum 200 words)

Leo Bernabei, our director of operations, frequently speaks to classes throughout the school on environmental issues. He has created numerous power point presentations which are available for teacher use and he is available to explain the "green" building process and how Radnor became LEED certified. We have developed signage for our school buildings and grounds

which highlight the green aspects of the buildings inside and out. A green touchscreen has been installed to allow interactive learning by students and visitors to the building, including all of the green attributes of the facility. Other schools, scout groups and community groups hold learning sessions throughout the year by attending presentations and tours of the facility.

Q3B5: If your school is a high school, does your school curriculum make connections between classroom and college and career readiness, in particular post-secondary options in environmental and sustainability fields?

Yes

Please describe these college and career connections. (Maximum 200 words)

In the Integrated thematic Global Issues courses at the high school and science courses in environmental biology, bioethics, topics in science and the environment, career and college options are discussed. In addition to an active college prep counseling department, there is also a career and technical education website offering information about the variety of opportunities from institutions, such as The Williamson Free School of Mechanical Trades, The Pennsylvania Institute of Technology and many Delaware County technical schools.

Q3C1: Do students conduct an age-appropriate, self-selected, civic/community engagement project at every grade level?

Yes

If not in all grades, please specify which grades.

Q3C2: Do students have meaningful outdoor learning experiences (experiences that engage students in critical thinking, problem solving and decision making) at every grade level?

Yes

If not in all grades, please specify which grades.

Please share how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills. (Maximum 200 words)

Daily use of the outdoors is encouraged for all grade levels through an outdoor recess program, allowing students to interact with each other in the outdoor environment and in the many green spaces provided at the school. Watershed students monitor the water quality of Darby Creek, participate in the Rose Tree Media Hawk Watch each year. They participate in the PA Fish and Wildlife Trout in the Classroom program with a second grade class, work on an environmental mural with an urban school, restore stream banks with community members, build bird houses, study geology by visiting sites and creating Rock Concerts for an Open House. This year, Watershed was awarded a Radnor Educational Foundation (REF) grant to purchase iPads to utilize the powerful technology of apps, such as Leaf Snap and iBird. Additionally, the use of this technology results in reduction of paper.

Q3C3: Please describe your partnerships with the local community (e.g., academic, business, government, nonprofit and informal science institutions) to help advance your school, other schools (especially schools with fewer resources) and the greater community toward the 3 Pillars. Include both the scope and impact of these partnerships. (Maximum 300 words)

The Wayne Business Association has been engaged in presentations and tours to help foster the use of green technologies and promote the school's green culture. A private partnership has been developed with a paper recycling firm, allowing all residents to participate in a school fundraiser by recycling all paper products from the school and the community. Watershed and RMS have partnerships with Philadelphia schools to build community and work on murals and planting projects such as at the Philadelphia Rowing Program for the Disabled (PRPD), an adaptive boat house for disabled rowers and cyclists. Students from Radnor and a Philadelphia school restore a raised flower and vegetable bed and a sensory garden each year on Martin Luther King Drive. We also have relationships with many environmental centers and other non profits: Tyler Arboretum, Schuylkill Center, Jenkins Arboretum, Riverbend, Brandy Valley Association, Churchville Nature Center, Kalmar Nyckel Foundation, Brandywine River Museum, Brandywine Conservancy, Radnor Conservancy, Greener Partners, Earth Force, Rose Tree Hawk Watch, Interpretive Center at the Philadelphia Waterworks, to name a few.

Q3C4: This is the end of Pillar 3. Please describe other methods and measurements your school uses to ensure matriculating students are environmentally and sustainability literate. (Maximum 200 words)

Given every opportunity, our staff engages students in meaningful instructional elements, including for example, engagement in the Philadelphia Mural Arts Projects, which coupled the gift of art with the talents of inner-city artists. Students painted local

scenes and environmental themes on the walls of our media center, a focal point of our green building. Environmental and sustainable literacy is interwoven into the lives of our students in all aspects of their school and community experience.

15. New Page

This concludes your Green Ribbon Schools Application. Please take a moment to make sure you've answered every question to the best of your ability. Once you proceed past this page, your application is considered submitted and will not be available for further editing.

16. Page 16 Of 16

Thank you for submitting an application to The Pennsylvania Department of Education for the Green Ribbon Schools program.

An email with a copy of your application has been sent to your school's principal.

Your application will be reviewed along with all completed applications following the application deadline of February 23, 2012 at 6PM.

If you have any questions, please contact The Pennsylvania Department of Education at ra-greenschools@pa.gov.

Email Confirmation

Jan 09, 2012 09:14:32 Success: Email Sent to: anthony.stevenson@rtsd.org

Feb 14, 2012 14:38:17 Success: Email Sent to: anthony.stevenson@rtsd.org

17. Thank You!

Thank you for submitting your school's Green Ribbon application. We appreciate your participation in this program.

Response ID: 201

Survey Submitted:	Feb 14, 2012 (2:38 PM)
IP Address:	173.49.255.178
Language:	English (en-us)
User Agent:	Mozilla/5.0 (Macintosh; Intel Mac OS X 10_5_8) AppleWebKit/534.50.2 (KHTML, like Gecko) Version/5.0.6 Safari/533.22.3
Http Referrer:	http://www.pathwaystogreenschools.org/
URL Variable: id	(no value)
URL Variable: crc	(no value)
URL Variable: snc	1326065669_4f0a28057afad7.43234795
URL Variable: _iseditlink	true

SCHOOL NAME: Radnor Middle School

Cross-Cutting questions: Participation in Green School Programs and/or Awards for Environmental and Sustainability Efforts

5 points

NUMBER	QUESTION	SCORING	ACTUAL POINTS
CC1	Is your school participating in a nationally recognized green school program which asks you to benchmark progress in some fashion?	Yes = 1 pt.	1
CC1	Which program(s) are you participating in and what level(s) have you achieved?	Green Globes/LEED = 1 pt. 3 or more programs = 1 pt.	1
CC2	Has your school, staff or student body received any awards for environmental or sustainability stewardship/action?	Yes = 1	1
CC2	Please list the awards you have received and the years you received them.	^{up to} Listed/Detail = 1 pt.	1

TOTAL POINTS

Possible = 5 points

4

SCHOOL NAME:

ELEMENT 1A: Working towards zero greenhouse gas (GHG) emissions

15 points

NUMBER	QUESTION	SCORING	ACTUAL POINTS
1A3	Percentage of the building area that meets green build standards (for example: LEED, CHPS, Green Globes or other standards)	1 pt.	1
1A3	Which certification did you receive and at what level?	LEED, Silver or better or GG2 = 1 pt.	1
1A4	What percentage of the existing building area has achieved green build standards?	1 pt.	1
1A4	Which certificate did the school receive and at what level?	GG2 or better LEED, Silver or better = 1 pt.	1
1A5	√ School has fully implemented the Facility Energy Assessment Matrix within EPA's Guidelines for Energy Management.	1 pt.	0
1A5	√ School Building has been assessed using the Federal Guiding Principles Checklist in Portfolio Manager.	1 pt.	1
1A5	√ School has an energy and water efficient product purchasing and procurement policy in place.	1 pt.	0
1A5	√ Other (please describe)	1 pt.	1
1A6	Has your school received EPA ENERGY STAR certification or does it meet the requirements for ENERGY STAR certification?	Yes = 1 pt.	1
1A7	Please provide the Percentage reduction	1 pt.	1
1A8	What percentage of your school's energy is obtained from: On-site renewable energy generation (i.e. solar, wind, biomass)	0-20% = 1 pt. 20% > = 2 pts.	2
1A8	What percentage of your school's energy is obtained from: Purchased renewable energy?	1 pt.	0
1A9	Please provide the Percentage reduction	1 pt.	1
1A10	Please provide the Change from baseline.	1 pt.	1

TOTAL POINTS

Possible = 15 points

12

ELEMENT 1B: Use of alternative transportation to, during, and from school **5 points**

NUMBER	QUESTION	SCORING	ACTUAL POINTS
1B3	✓ Our school has designated carpool parking stalls.	.5 pt.	.5
1B3	✓ Our school has a well-publicized no idling policy that applies to all vehicles (including school buses).	.5 pt.	.5
1B3	✓ Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.	.5 pt.	.5
1B3	✓ Our school has established Safe Pedestrian Routes to school which are distributed to parents and posted in our office.	.5 pt.	.5
1B3	✓ Our school promotes bike/ped programs.	.5 pt.	.5
1B3	✓ Our school participates in a "Safe Routes to School" program.	.5 pt.	.5
1B4	Describe how your school transportation use is efficient and environmentally benign (e.g. the percentage of school-owned electric/hybrid/alternative fuel vehicles in your fleet, or other indicators of significant reductions in emissions).	Up to 2 pts.	2

TOTAL POINTS

Possible = 5 points

5

ELEMENT 1C: Improved water quality, efficiency, and conservation **5 points**

NUMBER	QUESTION	SCORING	ACTUAL POINTS
1C1	Can you demonstrate a reduction in your school's total water consumption (measured in gallons/occupant) from an initial baseline?	Yes = 1 pt.	0
1C2	✓ Our school's landscaping is water-efficient and/or regionally appropriate.	1 pt.	1
1C2	✓ Our school uses nonpotable water sources (i.e. rainwater) for irrigation or toilet flushing.	1 pt.	0
1C2	✓ Our school has implemented storm water best management practices and/or low-impact development strategies (i.e. rain gardens, vegetated swales, pervious paving, rainwater harvesting, green roofs).	1 pt.	1
1C4	Please describe any additional progress your school has made towards improving water quality, efficiency, and conservation.	Up to 1 pt.	1

TOTAL POINTS

Possible = 5 points

3

ELEMENT 1D: Reduced waste production

5 points

NUMBER	QUESTION	SCORING	ACTUAL POINTS
1D1	Recycling Rate = $((B+C) / (A+B+C) \times 100)$	=> 50 = 1 pt.	1
1D4	✓ Our school has a hazardous waste policy for storage, management, and disposal that is actively enforced.	.5 pt.	0
1D4	✓ Our school disposes of unwanted computer and electronic products through an approved recycling facility or program.	.5 pt.	.5
1D4	✓ All our computer purchases are Electronic Product Environmental Assessment Tool (EPEAT) certified products.	.5 pt.	0
1D4	✓ Our custodial program has been certified to the Green Seal Standard for Commercial and Institutional Cleaning Services (GS-42), the ISSA Cleaning Industry Management Standard - Green Building or an equivalent standard.	.5 pt.	0
1D6	What other indicators do you have of your school's reduction of solid waste and elimination of hazardous waste?	Up to 1 pt.	1
1D7	Please describe any other accomplishments or progress your school has made towards reducing/eliminating environmental impacts or improving your energy efficiency.	Up to 1 pt.	1

TOTAL POINTS

Possible = 5 points

3.5

SCHOOL NAME:

ELEMENT 2A: An integrated school environmental health program

15 points

NUMBER	QUESTION	SCORING	ACTUAL POINTS
2A1	✓ Our school has an integrated pest management plan in place to reduce and/or eliminate pesticides.	2 pts.	2
2A2	✓ Our school has a comprehensive indoor air quality management program that is consistent with EPA's indoor air Quality (IAQ) Tools for Schools.	1.5 pts.	1.5
2A2	✓ Our school meets ASHRAE Standard 62.1-2010 (Ventilation for acceptable indoor air quality)	1.5 pts.	1.5
2A2	✓ Our school has installed one or more energy recovery ventilation systems to bring in fresh air while recovering the heating or cooling from the conditioned air.	1 pt.	1
2A2	✓ Our school has eliminated mercury-containing thermometers, chemical compounds, art chemicals, etc. and elemental mercury.	1 pt.	1
2A2	✓ Our school has CO alarms that meet the requirements of the National Fire Protection Association code 720.	1 pt.	1
2A2	✓ Our school has an asthma management program that is consistent with the National Asthma Education and Prevention Program's (NAEPP) Asthma Friendly Schools guidelines.	1 pt.	1
2A2	✓ Our school visually inspects all structures on a monthly basis to ensure they are free of mold, moisture, and water leakage.	1 pt.	1
2A2	✓ Our school's indoor relative humidity is maintained below 60%.	1 pt.	1
2A2	✓ Our school has a chemical management program that includes: chemical purchasing policy (low or no-VOC products), storage and labeling, training and handling, hazard communication, spills (clean up and disposal), and selecting EPA's Design for the Environment approved cleaning products.	1 pt.	1
2A2	✓ Our school prohibits smoking on campus and in public school buses.	1 pt.	1
2A2	✓ All of the ground contact classrooms at our school have been tested for radon within the last 24 months.	2 pts.	0

TOTAL POINTS

13

ELEMENT 2B: High standards of nutrition, fitness, and quantity of quality outdoor time. 15 points

NUMBER	QUESTION	SCORING	ACTUAL POINTS
2B1	√ Our school participates in the USDA's Healthier School Challenge or another nutrition recognition program.	2 pts.	2
2B1	√ Our school participates in a Farm to School program or other program to utilize local food in our cafeteria	1 pt.	0
2B1	√ Our school partners with local food growers to supply produce.	1 pt.	1
2B1	√ Our school has an onsite food garden.	1 pt.	1
2B1	√ Our school garden supplies food for our cafeteria.	1 pt.	0
2B1	√ Our students spent an average of 120 minutes per week over the past year in school supervised physical education.	2 pts.	2
2B1	√ At least 50% of our students' annual physical education takes place outdoors.	1 pt.	0
2B1	√ At least 50% of our students have participated in the EPA's Sunwise program (or other equivalent UV protection and skin health education program).	1 pt.	1
2B2	What percentage (by cost) of food purchased by your school is certified as "environmentally preferable" (e.g. Organic, FairTrade, Food Alliance, Rainforest Alliance, etc.)?	1 pt.	0
2B3	Please describe any additional progress your school has made in terms of the school's built and natural environment (including unique community and/or business partnerships) to promote overall student and staff health and safety.	Up to 4 pts.	4

TOTAL POINTS

11

SCHOOL NAME:

ELEMENT 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems

20 points

NUMBER	QUESTION	SCORING	ACTUAL POINTS
3A1	Is your school district's curriculum aligned to the Pennsylvania Environmental and Ecology standards?	Yes = 6 pts.	6
3A2	✓ Environmental and sustainability concepts are integrated throughout the curriculum.	4 pts.	4 4
3A2	✓ Environmental and sustainability concepts are integrated into classroom based and schoolwide assessments.	5 pts.	5
3A2	✓ Professional development opportunities in environmental and sustainability education are provided for all teachers.	5 pts.	5
TOTAL POINTS		Possible = 20 pts.	20

ELEMENT 3B: Use of the environment and sustainability to develop STEM content, knowledge, and thinking skills

5 points

NUMBER	QUESTION	SCORING	ACTUAL POINTS
3B1	Do your school's science courses frequently use sustainability and the environment as a context for learning science (such as asking questions, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructing explanations, and engaging in argument from evidence when exploring environmental and sustainability issues)?	Yes with explanation = Up to 2 pts.	2
3B2	Since green/sustainable concepts cross curriculum areas, where within the following standards content are they being taught, at what grade levels and what main resources are being used?	1 pt. (need to have at least 3 standard areas)	1
3B3	Does your school have a STEM curriculum and/or coordinator?	Yes with explanation = Up to 1 pt.	1
3B4	Has the school's use of green building materials, alternative or renewable energy sources or green technologies, been incorporated into the curriculum and/or utilized by teachers and students in the classroom?	Yes with explanation = Up to 1 pt.	1
TOTAL POINTS		Possible = 5 pts.	5

ELEMENT 3C: Development and application of civic engagement knowledge and skills 10 points

NUMBER	QUESTION	SCORING	ACTUAL POINTS
3C1	Do students conduct an age-appropriate, self-selected, civic/community engagement project at every grade level?	Yes = 2 pts. Not at all grade levels = 1 pt.	2
3C2	Do students have meaningful outdoor learning experiences (experiences that engage students in critical thinking, problem solving and decision making) at every grade level?	Yes = 2 pts. Not at all grade levels = 1 pt.	2
3C3	Please describe your partnerships with the local community (e.g., academic, business, government, nonprofit and informal science institutions) to help advance your school, other schools (especially schools with fewer resources) and the greater community toward the 3 Pillars. Include both the scope and impact of these partnerships.	Up to 3 pts.	2
3C4	Please describe other methods and measurements your school uses to ensure matriculating students are environmentally and sustainability literate.	Up to 3 pts.	2
TOTAL POINTS		Possible = 10 pts.	8