



U.S. Department of Education Green Ribbon Schools

**2011-2012 Presentation of Nominee to the
U.S. Department of Education**

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Attach State or Nominating Authority’s Evaluation of School Nominee (Either application or other
documentation of review)

OMB Control Number: 1860-0509
Expiration Date: February 28, 2015

PART I - ELIGIBILITY CERTIFICATION

School and District's Certifications

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct.

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 comes close 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 school has been evaluated and selected from among schools within the state or Nominating Authority's jurisdiction (BIE, DoDEA), based on *documented achievement* toward the three Green School Pillars and Elements.
4. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
5. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
6. 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.
7. 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.
8. The school meets all applicable federal, state, tribal and local health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

U.S. Department of Education
Green Ribbon Schools 2012

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

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

Official School Name Clarkston High School
(As it should appear in the official records)

School Mailing Address 6093 Flemings Lake Rd.
(If address is P.O. Box, also include street address.)

Clarkston MI 48346
City State Zip

County Oakland State School Code Number* 0706

Telephone (248) 623-3600 Fax (248) 623-3575

Web site/URL www.clarkston.k12-mi.us E-mail gkaul@clarkston.k12-mi.us

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.

* Gary J. Kaul Date 3-20-2012
(Principal's Signature)

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

District Name* Clarkston Community Schools Tel. (248) 623-5400

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.

* [Signature] Date 3-20-12
(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 state's highest achieving green school efforts in approximately 600-800 words. Summarize your strengths and accomplishments. Focus on what makes your school worthy of the title U.S. Department of Education Green Ribbon School. Be sure to note if students were actively involved in preparing the application.

This summary should be written as a stand-alone document. It will provide the ED review panel with an overview of the school's green activities that were detailed in the application to the state, DoDEA or BIE evaluators. If the school is awarded a U.S. Department of Education Green Ribbon, this information may be shared with other schools, candidates for next year, the press, and the public.

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*

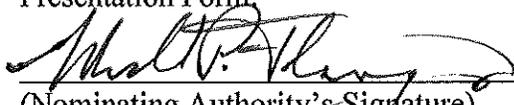
toward the three Green School Pillars and Elements.

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 Michigan Department of Education

Name of Nominating Authority Mr. Michael Flanagan, State Superintendent
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

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.


(Nominating Authority's Signature) Date 3/22/12

Note to Nominating Authority: The application, including the signed certifications and documentation of evaluation in the three pillars should be converted to a PDF file and emailed to Director, ED-Green Ribbon Schools at green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

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.

U.S. Department of Education Green Ribbon Schools

Clarkston High School Summary of Achievements:

The mission of Clarkston Community Schools is to cultivate thinkers, learners, and positive contributors to a global society. Our vision is that each Clarkston Community Schools' student is fully engaged in a globally focused education, from preschool through graduation, which fosters in her/him a sense of self, perspective, responsibility/ownership, and contribution.

Clarkston High School is doing just that! Specifically for our green school initiatives, all students, staff, administrators, and community members are 'energy savers' in our district's energy management program, which monitors energy usage for each building in our district, shares the data regularly, establishes and upholds energy policies and promotes involvement in green initiatives. The purpose of our district's energy management program is to implement energy awareness and conservation by taking personal responsibility in producing an energy efficient, healthy and sustainable environment. We work toward this vision by participating in green school programs at both the state and national levels. We have earned EPA's Energy Star Award in 2008. Since the implementation of our district's energy management program, our school alone has reduced our greenhouse gas emissions by 27%. This has been achieved through behavior modification, establishment of energy use policies, lighting upgrades, installation of occupancy sensors, daylight harvesting sensors, variable speed drives on pumps, utilization of centralized HVAC and lighting controls, reduction of appliances, installation of automatic timers for computer shut downs, and continual monitoring and sharing of utility usage data.

The students' involvement in our green school initiatives is vital to our success. The Recycling Club recycles collects empty printer cartridges, old cell phones, and small electronics in the media center. The students empty classroom paper recycle bins weekly. At lunch, they separate styrofoam trays, milk cartons, soup cans, food, and paper.

We have an arrangement with a local refrigeration design company whereby they donate their scrap and waste insulation form material to our classes to use in grades 6-12 to use in design projects for prototyping, modeling, and aerodynamic analysis projects.

Our staff uses technology to also reduce the use of paper through Moodle, and online resources. The school newsletter, many messages and teacher/parent correspondence is done electronically. Our ELA Department reviews students' work using track changes, which reduces the number of copies required. Even our physical education teachers recycle plastic buckets for use in their class.

Each spring and fall, the school has a grounds clean-up day. Trash and recyclable items are picked up. Several of our classes utilize the wooded area

behind our school. They have created and maintain outdoor classrooms and learning trails.

CSMTech is a program offered by Clarkston Schools where learning math and science (with infused technology) is celebrated. Math and sciences are taught in an integrated curriculum, demonstrating real world applications and connections.

The top 3 career paths that our students follow are engineering, medical, and education. We do not focus on any particular careers in our curriculum. Instead, we try to expose our students to as much as we can so that they have a well rounded education and can make a choice that fits who they are.

Our Career and Technical Education courses in Engineering and Applied Tech have Green and Sustainability Education imbedded. Our Engineering Science course looks specifically at green engineering with design and problem solving. Students complete three large scale "green" learning experiences, focused on the following:

1. Reduce - Students perform home energy audits using energy meters. They evaluate their energy consumption through data analysis and then calculate their individual monthly energy costs and develop an energy invoice to submit to their families. Students then put together an energy reduction plan and are encouraged to implement it with their family.

2. Reuse - Students are asked to redesign a product to put it back into use instead of being waste. Most students convert 55gallon drums into Rainbarrels, document the step-by-step construction process and then present and share the "instructable". Community foundations and the local PTA supply the materials through community grants. Those barrels are either donated to the district's schools to support green curriculum or sold as a fundraiser to community members. Other students reuse donated solar panels and then design, build, test, and use circuits to convert the solar output to be used to charge electronic devices like their phones or music devices. Students are then encouraged to upgrade their circuit to charge rechargeable batteries. Students then get to keep those projects.

3. Recycle - Students are required to design and build a board game or physical game using 100% recycled materials. Students evaluate each other on playability, creativity, quality of design, quality of construction, and on the use of recycled materials.

Civil Engineering and Architecture students design commercial structures with green space roofs and gray water reclamation systems. They also design custom homes using Habitat for Humanity guidelines and are designed using recycled or reclaimed materials.

These are just a few highlights of the green initiatives by students and environmental curriculum provided by our district. We are committed to sustainable development!

Michigan Department of Education

2012 Green Ribbon School Application Review

Clarkston High School

District Code: 63190 Clarkston Community Schools

School Code: 00706

| Reviewer | Cross Cutting | Elements | | | | | | | | | | Total |
|--------------------|---------------|------------|------------|------------|------------|-------------|------------|-------------|------------|------------|--------------|-------|
| | | 1A | 1B | 1C | 1D | 2A | 2B | 3A | 3B | 3C | | |
| 1 | 3 | 7.5 | 5 | 3.5 | 5 | 12 | 8 | 11 | 5 | 6 | 66 | |
| 2 | 3 | 9 | 5 | 3 | 4.75 | 10 | 8 | 12 | 5 | 7.5 | 67.25 | |
| 3 | 4 | 9 | 5 | 3.5 | 5 | 12 | 7 | 10 | 5 | 6 | 66.5 | |
| 4 | 4 | 6.5 | 5 | 2.75 | 4.75 | 12 | 7 | 8 | 5 | 6 | 61 | |
| 5 | 4 | 7 | 5 | 2.7 | 4.6 | 12.5 | 8 | 11.5 | 4 | 4 | 63.3 | |
| 6 | 4 | 6.5 | 5 | 3 | 3 | 13 | 7 | 8 | 3 | 4.5 | 57 | |
| 7 | 3 | 9.5 | 5 | 3 | 5 | 10 | 7 | 7 | 4 | 6 | 59.5 | |
| 8 | 4 | 7.5 | 5 | 3 | 5 | 10.5 | 6 | 9 | 3 | 2 | 55 | |
| 9 | 4 | 9 | 5 | 4.5 | 5 | 8 | 8 | 15 | 5 | 8 | 71.5 | |
| 10 | 3 | 7 | 5 | 3 | 5 | 12.5 | 8 | 15 | 5 | 7 | 70.5 | |
| | | | | | | | | | | | 0 | |
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| | | | | | | | | | | | 0 | |
| | | | | | | | | | | | 0 | |
| Total Score | 3.6 | 7.9 | 5.0 | 3.2 | 4.7 | 11.3 | 7.4 | 10.7 | 4.4 | 5.7 | 63.76 | |

Cross-Cutting Questions

Participation in Michigan Green Schools, Programs, and/or Awards for Environmental and Sustainability Efforts

- CC1. Is your school participating in a local, state, or nationally recognized green school program which asks you to benchmark progress in some fashion (for example, National Wildlife Federation Eco-Schools USA, Green Schools Alliance, Collaborative for High Performance Schools, or Project Learning Tree's Green Schools!, Energy Essentials, Rebuild Michigan, or Michigan Green Schools)?
Yes No

What program(s) are you participating in and what level(s) have you achieved? Michigan Green Schools, PLT Green Schools, Oakland County's Oakgreen Challenge, EPA's Energy Star, Michigan Renewable Schools

- CC2. Has your school, staff, or student body received any awards for environmental or sustainability stewardship/action? Yes No

Please list the awards you have received and the years you received them. Energy Star - 2008

Pillar I: Environmental Impact and Energy Efficiency

Buildings, grounds, and operations goal: **The school has made significant progress toward “net zero” environmental impact** (zero carbon, solid waste, and hazardous waste footprints).

Pillar I includes four main elements. Each question in this section is designed to measure your school's progress toward Pillar I and its associated four elements.

Element 1A: Zero Greenhouse Gas (GHG) Emissions

ENERGY

- 1A1. Can your school demonstrate a reduction in its greenhouse gas emissions?
Yes No

Please provide the following information:

Initial GHG emissions rate (MT eCO₂/person): 7089 MT eCO₂
Final GHG emissions rate (MT eCO₂/person): 5154 MT eCO₂
Percentage reduction: 27%
Time period measured (mm/yyyy – mm/yyyy) 06/2006 - 11/2011
How did you document this reduction (e.g., the inventory module from Clean Air Cool Planet's Campus Carbon Calculator)? Energy Star Portfolio

- 1A2. Has your school received EPA's ENERGY STAR certification or does it meet the requirements for ENERGY STAR certification? Yes No

If your school received the certification, please note the year(s) it was achieved and the score received. 2008 - 77

RESOURCES: [DOE and EPA ENERGY STAR for K-12 School Districts](#)
[DOE Purchasing Specifications for Energy Efficient Products](#)

- 1A3. Has your school reduced the total non-transportation energy use (i.e., electricity and temperature control) from an initial baseline? Yes No

Please provide the following information:

Percentage reduction: 26.3%

Measurement unit used (kBtu/square foot or kBtu/student), annual therms, etc.: kBTU/sqft
Time period measured: from 06/2006 to 11/2011
How did you document his reduction, (i.e., ENERGY STAR portfolio, district report)? Energy Star Portfolio
RESOURCES: [EPA Portfolio Manager](#), [DOE's Better Building Manager Database of State Incentives for Renewable Energy \(DSIRE\)](#)

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

Onsite renewable energy generation: 0%
Purchased renewable energy: 0%
RESOURCES: [Advanced Energy Design Guide for K-12 School Buildings](#),
[USGBC Center for Green Schools](#)

BUILDINGS

In what year was your school constructed? 1998
What is the total building area of your school? 423,066 sqft

1A5. Has your school constructed a new building or renovated an existing building in the past 10 years?

Yes No

Please provide the following information:

Percentage of the building area meeting green build standards (for example, Leadership in Energy and Environmental Design (LEED), Collaborative for High Performing Schools (CHPS), Green Globes or other standards): 0%

What certification did you receive and at what level? _____

What is the total constructed area? 423066 (SQ.FT.)

What is the total renovated area? _____ (SQ.FT.)

RESOURCES: [K-12 Guide to Energy Savings Performance Contracting](#)

1A6. Do any parts of your **existing** buildings meet green build standards (for example, Leadership in Energy and Environmental Design (LEED), Collaborative for High Performing Schools (CHPS), Green Globes or other standards)? Yes No

Please provide the following information:

What percentage of your school's total existing building area has achieved green building standards (LEED Existing Buildings: Operation & Maintenance, CHPS Operations, Green Globes, or other standards)? _____%

What is the total building area? _____ (SQ.FT.)

Which certification (if any) did you receive and at what level (e.g., Silver, Gold, Platinum)? _____

RESOURCES: [ENERGY STAR for Federal Agencies](#)

1A7. Does your school reduce or offset the greenhouse gas emissions from building energy use?

Yes No

Please provide the following information:

List offsets used: Energy Efficiency Retrofits, Energy Mgt Program and Education

Current Total GHG Emissions (MtCO₂e) 5154

Baseline Total GHG Emissions (MtCO₂e) 7089

Change from Baseline: 1935

Time period: from 06/2006 to 11/2011

RESOURCES: [DOE State Energy Program](#)

1A8. Please indicate which green building practices your school is using to ensure your building is energy efficient:

- Our school has fully implemented the Facility Energy Assessment Matrix within EPA's Guidelines for Energy Management.
- Our school building has been assessed using the Federal Guiding Principles Checklist in Portfolio Manager.
- Our school has an energy and water efficient product purchasing and procurement policy in place.

- Other indicators of your progress towards elimination of GHG emissions (describe in detail and include metrics if available): Our school has fully implemented an Energy Management Program utilizing Schooldude's Utility Direct software to monitor usage

Assessment tool: [Clean Air Cool Planet's Campus Carbon Calculator](#)

RESOURCES: [EPA's Guidelines for Energy Management Overview](#), [EPA Portfolio Manager](#)

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

WATER

- 1B1. Can you demonstrate reduced total water consumption (measured in gal/occupant from an initial baseline)? Yes No

Please provide the following information:

Percentage reduction domestic: 55.6%

Percentage reduction irrigation: %

Time period: from 2006 to 2010

How did you document this reduction (i.e., ENERGY STAR Portfolio Manager, school districts reports)? Schooldude's Utility Direct

RESOURCES: [EPA WaterSense](#)

- 1B2. Which of the following practices does your school employ to increase water efficiency and ensure quality? (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.

Our school uses alternative water sources (i.e., grey water) for irrigation before potable water.

RESOURCES: [EPA WaterSense: Outdoor Water Use](#)

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 in drinking water).

Please describe the program you have in place to control lead in drinking water.

Our school's drinking water comes from:

Municipal water source Well on school property Other

Please describe how the water source is protected from potential contaminants:

Please describe any additional progress your school has made toward improving water quality, efficiency, and conservation. Installation of low-flow water fixtures, scheduling and zoning of irrigation

GROUNDS

- 1B3. Please provide the following information about your schools landscaping:
What percentage of your total landscaping is considered water-efficient or regionally appropriate?

100%

What types of plants are used and where are they located? Salt and drought tolerant

Please describe the alternate water sources used for irrigation.

RESOURCES: [Fish and Wildlife Service Schoolyard Habitats](#)

- 1B4. What percentage of the school grounds are devoted to ecologically beneficial uses (school vegetable garden, wildlife or native plant habitats, outdoor classroom, environmental restoration projects, rain garden, etc.) or socially/culturally beneficial uses (e.g., playgrounds, outdoor spaces designed and used regularly for social interaction, athletic or recreational areas, walking or running trails, etc.)? 80%

Element 1C: Reduced Waste Production

WASTE

- 1C1. What percentage of solid waste is diverted from landfilling or incinerating due to recycling and/or composting (i.e., recycling rate)? 66%
 Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected). 24
 Monthly recycling volume in cubic yards (recycling dumpster size(s) x number of collections per month x percentage full when emptied or collected). 48
 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 = $([B + C] \div [A + B + C]) \times 100$ 66%
 RESOURCES: [EPA WasteWise Re-TRAC](#)
- 1C2. What percentage of total office/classroom paper content **by cost** is post-consumer material or fiber from forests certified as responsibly managed by the Forest Stewardship Council, Sustainable Forestry Initiative, American Tree Farm System or other certification standard: 30%
 (If a paper is only 30% recycled, only 30% of the cost of that paper should be counted).
- 1C3. What percentage of total office/classroom paper content by cost is "totally chlorine-free" (TCF) or "processed-chlorine-free" (PCF)? %

HAZARDOUS WASTE

- 1C4. Please provide the following information about your school's hazardous waste:
 How much hazardous waste does your school produce? (lbs./person/year)
 How is this amount calculated?
 List the types of hazardous waste generated:
 How does your school monitor hazardous waste?
 RESOURCES: [CDC Hazardous Waste Self-Management Checklist](#), [Design for the Environment](#)
- 1C5. Which of the following benchmarks has your school achieved to minimize and safety manage hazardous waste? (check all that apply)
- Our school has a Hazardous Waste Policy for storage, management and disposal of chemicals that is actively enforced.
 - Our school disposes of unwanted computer and electronic products through an approved recycling facility or program.
 - All our computer purchase are Electronic Product Environmental Assessment Tool (EPEAT) certified products.
 - 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).
- Which green cleaning standard is used?
 RESOURCES: [ISSA Cleaning Industry and Management Standards](#), [EPEAT](#), [EPA Reducing Risk From Hazardous Waste](#)
- 1C6. Does your school use "third party certified" green cleaning products? Yes No
 What percentage by volume of all cleaning products in use are "third party certified" green cleaning products? 75%
 What specific green cleaning product standard (Green Seal, Ecologo, etc.) does the school use?
Green Seal
- 1C7. What other indicators do you have of you school's reduction of solid waste and elimination of hazardous waste? Foam lunch trays are recycled daily , milk cartons are emptied and disposed in a recycling container, paper recycling dumpsters, electronic recycling days, recycling dumpster

Element 1D: Use of Alternative Transportation To, During, and From School

- 1D1. What percentage of students walk, bike, bus, or carpool (2+ students in the car) to/from school?
95%
 Describe how this information been collected and calculated: Bus ridership is counted in October and reported to State. Walkers, bikers, and carpoolers are estimated.
 RESOURCES: [DOT Pedestrian & Bicycle Safety](#)

- 1D2. 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 and unloading areas are at least 25 feet away from all building air intakes, including doors and windows.
- RESOURCES: [EPA Clean School Bus USA](#)
- Our school has established “Safe Pedestrian Routes” to school which are distributed to parents and posted in the main office.
 - Our school participates in a “Safe Route to School” program.
- RESOURCES: [Safe Routes to Schools](#)
- 1D3. 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): All buses are equipped with an engine preheater to reduce warm-up time (Pre-trip) and idle time. Bus pre-trip times have been reduced by 5mins prior to the buses leaving the depot. All buses are shut down in front of school building prior to p.m. students boarding and during layover times. The buses use low sulfur fuel and follow the fuel emissions standards from 2009.
- RESOURCES: [CHPS Transportation Plan](#)
- 1D4. Describe any other accomplishments your school has made under Pillar I towards eliminating its negative environmental impact or improving your environmental footprint which you feel should be considered: Through last school year, Clarkston Community Schools has saved and avoided 2.7 million dollars through the reduction in energy costs since the start of the energy management program. We currently have seven Energy Star Buildings, several Michigan Green Schools and are working toward a LEED certified building. Through our efforts, we have prevented the equivalent of more than 36,301 metric tons of carbon dioxide since the creation of our energy management program in 2005. We have prevented greenhouse gas emissions equal to the electricity use from 9,705 households for a year or from 15,262 passenger vehicles annually. We are proud of the following accomplishments: Establishing an Energy Management Program, Creating Energy Usage Guidelines, Creating a Recycling Program within the schools, Hosting Electronic Recycling event for our community, Installing low-flow water fixtures, Lighting upgrades (T-12's to T-8's, and now to T-5's), Installing Occupancy Sensors, Installing Daylight Harvesting Sensors, Installing Demand-Controlled Ventilation through the use of CO2 sensors, Installing VFD (Variable Frequency Drives) on several of our pumps, Utilizing HVAC controls, Utilizing lighting controls, Planning and scheduling of events to minimize energy usage (consolidating areas being used), Tracking utility usage and costs, and sharing that data with the district, Setting up incentive programs for the buildings (building with least energy used or building with the most reduction from one year to the next) and rewarding them with a 'green' award

Pillar II: Healthy School Environments

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

Pillar II includes two main elements. Each question in this section is designed to measure your school's progress toward Pillar II.

Element 2A: 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.

INTEGRATED PEST MANAGEMENT

- 2A1. Which of the following practices does your school employ with regard to pest management? (check all that apply)

- Our school has an integrated pest management plan in place to reduce 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 application are all available and in an accessible location.
- Our school prohibits children from entering the a treated area for at least eight hours following the application or longer, if feasible, or if required by the pesticide label.

RESOURCES: [EPA Integrated Pest Management for Schools](#)

VENTILATION AND CONTAMINANT CONTROL

2A2. Which of the following practices does your school employ to improve contaminant control and ventilation?

- Our school has a comprehensive indoor air quality management program consistent with EPA's Indoor air Quality IAQ Tools for Schools
RESOURCES: [EPA Indoor Air Quality Tools for Schools](#)
- Our school meets the 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.
RESOURCES: [EPA Indoor Air Quality Tools for Schools](#)
- Our school has eliminated mercury containing thermometers, chemical components, art chemicals, etc. and elemental mercury.
- Our school disposes of any unwanted mercury laboratory chemicals, thermometers, and others devices in accordance with federal, state, and local environmental regulations.
RESOURCES: [EPA Schools and Mercury](#)
- Our school has CO alarms installed which meet the requirements of the National Fire Protection Association code 720.
RESOURCES: [EPA Healthy Schools Environments Assessment Tool](#)
- There are no wood structures on school grounds that contain Chromated Copper Arsenate (CCA).
- Our school has an asthma management program in place that is consistent with the National Asthma Education and Prevention Program's (NAEPP) Asthma Friend Schools Guidelines.
RESOURCES: [EPA Managing Asthma in Schools](#), [CDC Tools for Making Your School Asthma-Friendly](#)
- Our school visually inspect all structures on a regular basis to ensure they are free of mold, moisture, and water leakage.
- Our school's indoor humidity is maintained below 60%.
- Our school has moisture resistant materials/protective systems installed (e.g., flooring, tub/shower, backing, and piping).
RESOURCES: [EPA Mold Remediation in Schools and Commercial Buildings](#)
- Our school has a chemical management program in place that includes the following elements:
 - Chemical purchasing policy (including low- or no-VOC products)
 - Storage and labeling
 - Training and handling
 - Hazard communication
 - Spills (clean-up and disposal)
 - Select EPA's Design for the Environment - approved cleaning products
- Our school prohibits smoking on campus and in public school buses.
RESOURCES: [CDC Guidelines for School Health Programs to Prevent Tobacco Use](#)
- All ground-contact classrooms at our school have been tested for radon within the past 24 months.

If your school has combustion appliances, is there an inventory of them and does your school annually inspect these appliances to ensure no release of Carbon Monoxide (CO)?

- Yes No No combustion appliances

What percentage of all classrooms with levels greater than 4 pCi/L have been mitigated in conformance with ASTM E2121? %

RESOURCES: [EPA Radon Information](#)

Element 2B: High Standards of Nutrition, Fitness, and Quantity of Quality Outdoor Time for Both Students and Staff

FOOD AND NUTRITION

2B1. Which practices does your school employ to promote nutrition, physical activity, and overall school health? (check all that apply)

- Our school participates in the USDA's Healthier US School Challenge or another nutrition program.

RESOURCES: [USDA HealthierUS School Challenge](#)

- Our school participates in a Farm to School program or other program to utilize local food for our cafeteria.

- Our school has an onsite food garden.

RESOURCES: [USDA Farm to School Program](#), [USDA Agriculture In the Classroom](#)

- Our school garden supplies food for our cafeteria.

PHYSICAL EDUCATION, OUTDOOR OPPORTUNITIES, AND UV SAFETY

- Our students spent an average of 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.

- At least 50% of our students have participated in EPA's Sunwise Program.

RESOURCES: [EPA Sunwise Program](#)

Please list your school's USDA Healthier School challenge award level or describe other nutrition program. Award recipient for 2011-12 of Fuel Up To Play 60 Grant from United Dairy Industry and the National Football League

Please describe the type of outdoor exercise opportunities and nature-based recreation available to students. walking paths, nature paths, cross-country paths, playing fields, mountain biking trails (in progress)

2B2. What percentage (by cost) of food purchased is certified as "environmentally preferable" (e.g. Organic, FairTrade, Food Alliance, Rainforest Alliance, etc.)? _____%

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. Award recipient for 2011-12 of Fuel Up To Play 60 Grant from United Dairy Industry and the National Football League, Students participate daily in physical activities and making healthy food choices from the cafeteria, a variety of fresh fruits and vegetables are offered daily at all schools, all schools have switched to offering skim and 1% milkfat only

Pillar III: Environmental and Sustainability Education

Student achievement goal: **100% of the school's graduates are environmentally and sustainability literate.**

Pillar III includes three main elements. Each question in this section is designed to measure your school's progress toward Pillar III.

LEARNING AND ENVIRONMENTAL LITERACY

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

3A1. Which practices does your school employ to help ensure the environmental and sustainability literacy of your graduates? (check all that apply)

- Our school has an environmental or sustainability literacy graduation requirement
- Environmental and sustainability concepts are integrated throughout the curriculum.
RESOURCES: [State Education & Environment Roundtable](#), [Excellence in Environmental Education: Guidelines for Learning \(K-12\)](#)
- Environmental and sustainability concepts are integrated into classroom based and school wide assessments.
- Professional development opportunities in environmental and sustainability education are provide for all teachers.

Please describe your school's environmental or sustainability literacy graduation requirement.

Please describe your classroom based school wide assessment in environmental and sustainability concepts and what percentage of your students scored proficient or better: All CTE courses in Engineering and Applied Tech have Green and Sustainability Education imbedded. These courses include Principles of Technology, Engineering Science, Engineering Problem Solving, Intro to Engineering Design, Digital Electronics, Civil Engineering and Architecture, and Drafting/CAD, Environmental Chemistry _____%

Please describe professional development opportunities available in environmental and sustainability standards. Include the percentage of teachers who participated in these over the past two years: _____%

3A2. If your school serves grades 9-12, please provide the following information:

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

Percentage of these student who scored a three or higher on the AP Environmental Science exam: _____%

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

3B1. Does 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 No

Please describe: Solar Energy projects, wind turbine modeling, outdoor gardens, stormwater management, nature walks

3B2. If your school is a high school, does your school curriculum make connections between classroom and college and career readiness, in particular postsecondary option in environmental and sustainability fields (i.e., CTE Green Sustainable Design and Technology course)?

Yes No

Please describe these college and career connections: All CTE courses in Engineering and Applied Tech have Green and Sustainability Education imbedded. These courses include Principles of Technology, Engineering Science, Engineering Problem Solving, Intro to Engineering Design, Digital Electronics, Civil Engineering and Architecture, and Drafting/CAD.

Our Engineering Science course looks specifically at Green Engineering with Design and Problem Solving. Students complete three large scale green-focused learning experiences.

1. Reduce - Students perform home energy audits using energy meters. They evaluate their energy consumption through data analysis and then calculate their individual monthly energy costs and develop an energy invoice to submit to their families. Students then put together an energy reduction plan and are encouraged to implement it with their family.

2. Reuse - Students are asked to redesign a product to put it back into use instead of being waste. Most students convert 55gallon drums into Rainbarrels, document the step-by-step construction process and then present and share the "instructable". Community foundations and the local PTA supply the materials through community grants. Those barrels are either donated to the district's schools to support green curriculum or sold as a fundraiser to community members. Other students reuse

donated solar panels and then design, build, test, and use circuits to convert the solar output to be used to charge electronic devices like their phones or music devices. Students are then encouraged to upgrade their circuit to charge rechargeable batteries. Students then get to keep those projects.

3. Recycle - Students are required to design and build a board game or physical game using 100% recycled materials. Students evaluate each other on playability, creativity, quality of design, quality of construction, and on the use of recycled materials.

Starting this Spring these students will also be learning the green energy curriculum supplied from EnergyWorksMichigan.

COMMUNITY AND CIVIC ENGAGEMENT

Element 3C: Development of civic engagement knowledge and skills, and students' application of these to address sustainability and environmental issues in their community

- 3C1. Are all students required to conduct an age-appropriate, self-selected civic/community engagement project at every grade level? Yes Not at all grade levels Not at all
If not all grades, please specify which grades: 9-12
What percentage of last year's graduates scored proficient or better on a community or civic engagement skills assessment? 100%
What percentage of these projects focused on environmental or sustainability topics? %
What percentage of students satisfactorily completed such a project last year: %
- 3C2. Do your students have meaningful outdoor experiences (an investigative or experiential project that engages students in critical thinking, problem solving and decision making) at every grade level?
 Yes Not at all grade levels Not at all
If not 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. Solar Energy projects, wind turbine modeling, outdoor gardens, stormwater management, nature walks
- 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 three Pillars: We have an arrangement with a local refrigeration design company whereby they donate their scrape and waste insulation form material to our classes to use in grades 6-12 to use in design projects for prototyping, modeling, and aerodynamic analysis projects.

Students are asked to redesign a product to put it back into use instead of being waste. Most students convert 55gallon drums into Rainbarrels, document the step-by-step construction process and then present and share the "instructable". Community foundations and the local PTA supply the materials through community grants. Those barrels are either donated to the district's schools to support green curriculum or sold as a fundraiser to community members. Other students reuse donated solar panels and then design, build, test, and use circuits to convert the solar output to be used to charge electronic devices like their phones or music devices. Students are then encouraged to upgrade their circuit to charge rechargeable batteries. Students then get to keep those projects.

Civil Engineering and Architecture students design commercial structures with green space roofs and gray water reclamation systems. They also design Custom homes using Habitat for Humanity guidelines and are designed using recycled or reclaimed materials.

Include both the scope and impact of these partnerships.

- 3C4. Please describe other methods and measurements your school uses to ensure matriculating students are environmentally and sustainability literates.