



2014-2015 District Nominee Presentation Form

CERTIFICATIONS

District's Certifications

The signatures of the district superintendent on the next page certify that each of the statements below concerning the district's eligibility and compliance with the following requirements is true and correct to the best of the superintendent's knowledge.

1. The district has been evaluated and selected from among districts within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
2. The district is providing 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.
3. OCR has not issued a violation letter of findings to the school district concluding that the nominated school district 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.
4. The U.S. Department of Justice does not have a pending suit alleging that the school district has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
5. 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 school district in question; or if there are such findings, the state or school district has corrected, or agreed to correct, the findings.
6. The district meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

U.S. Department of Education Green Ribbon Schools 2014-2015 District Sustainability Award

Name of Superintendent: Mr. Michael R. Sheppard

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

District Name: Berea City School District

(As it should appear on an award)

Address: 390 Fair Street, Berea, OH 44017

Telephone: 216-898-8840 ext. 6241 Fax: 216-898-8551

Web site/URL: http://www.berea.k12.oh.us E-mail: msheppard@bera.k12.oh.us

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

A handwritten signature in blue ink that reads "Michael Sheppard".

(Superintendent's Signature)

Date: January 21, 2015



Nominating Authority’s Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the district’s eligibility and compliance with the following requirements is true and correct to the best of the Authority’s knowledge.

- 1. The district is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
- 2. The district meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: Ohio Department of Education

Name of Nominating Authority: Ms. Charlotte Jones-Ward
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

Charlotte Jones-Ward

Date: January 28, 2015

(Nominating Authority’s Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE’S ACHIEVEMENTS

Provide a coherent "snapshot" that describes how your district is representative of your jurisdiction’s highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars and nine Elements. Then, include documentation and concrete examples for work in every Pillar and Element.

The Berea City School District (BCSD) has taken proactive steps in good stewardship to reduce environmental impact and operating costs; improve students’ and staff members’ health; and provide effective environmental and sustainability education through several focused indicatives’ related to operations, wellness, health and environmental education.

In addressing PILLAR ONE, the district has actively implemented strategies to positively impact a net zero environmental impact to work towards a zero greenhouse gas (GHG) impact, reduce waste production and use alternative transportation energies. In partnering with Cenergistic, an ENERGY STAR partner since 2005 the school district was award the *District Energy Stewardship Award* recognizing good stewardship resulting in a positive impact on the environment, including decreased carbon emissions and the conservation of natural resources, presented by Cenergistic. Additionally, the district has joined in the “Clean Fuel Initiative” which is one of several steps that the Transportation Department has taken to burn cleaner-burning low emissions High Performance Clean Diesel (HPCD) to positively impact the environment. Furthermore, the district partnered with EcoChem Alternative Fuels to thoroughly clean its fuel storage tanks prior to the fuel delivery of HPCD. Other steps within the Transportation Department include more efficient bus routing and GPS monitoring system to increase efficiencies.

As of recent post the application process, the district has instituted some changes in an effort to reduce was production. In the past the buildings and grounds department has rented a 40 yard dumpster that was used for all types of district garbage that was collected and disposed of through the year. On average, the district would have had that size dumpster emptied 4-6 times per year. All of the trash from these dumpsters go directly into the landfill. In an effort to be more environmentally friendly, Berea City Schools has changed how they handle this process. First, all yard waste like tree limbs and grass clippings are shredded and composted for use by the community garden club that has set up



operation on the vacant land behind our building. Second, the district is splitting the waste service into two smaller dumpster collections that will be used to separate general recyclables (all items like household recycling) into a 20 yard dumpster, and general refuse into a second 20 yard dumpster. The district anticipates this will divert the amount of trash that ends up in the landfill and increase the amount getting recycled. As described, the above actions is at the initial stage and working towards a district wide strategy to reduce waste.

Furthermore, Grindstone Elementary School has qualified for *LEED GOLD* certification. This was earned through points generated through the use of recycled and regionally-obtained materials, the building scored highly in both categories related to developing a sustainable site and also in energy efficiency (through the use of a geothermal heating and cooling system). This high rating was achieved because of the diligence in design expectation established by the district through a high score in energy efficiency (10 points out of a possible 10 points). Achieving net zero impact on the environment for our students, staff and community at large is a district priority and will be realized through the collaborative efforts of this organization as an ongoing focus.

Working towards a net positive impact on students' and staff members' health, PILLAR TWO, has been targeted through an integrated school/district approach. The district was awarded the USDA's Healthier U.S. School Challenge Bronze Award winner for school food through the leadership of our Nutrition Services. The district is a long standing partner with the Cleveland Clinic and several of its health focused initiatives and is a recipient of the *Cleveland Clinic Eat Right at School District* and the *Be Food Safe School District*. Recently, the district launched a Comprehensive Wellness program that is incentivized through an online tool called. Vitality. This is an interactive and personalized wellness program that makes it easy for our staff to participate in health screenings, identify goals and track wellness/fitness progress.

The district offers a comprehensive physical education program that values fitness and health as a primary components. In the 2012-2013 school the district made a commitment to move towards a fitness focus to physical education by increasing the amount of physical education courses required in grade. The grade 9 "Fitness" physical education course is provided and is a requirement for all students grades K-9. It is an introduction to the foundations of Physical Education with emphasis on cardiovascular and core fitness training, water safety and a variety of lifestyle fitness activities. The district continues to revise and refine the curriculum to incorporate and integrate the tenants of a well-developed health/physical education program that focuses on fitness.

As we work towards PILLAR THREE, the Berea City School District has made a commitment to the students and community to provide authentic experiences to promote environmentally and sustainability literate programs for our students and the greater learning community. Environmental and sustainability concepts are integrated throughout the curriculum in grades K-12. Berea City School District has developed educational programs and opportunities that promote conservation and environmental practices across grade levels. This includes specialized programs such as Environmental Clubs, Camp-Mi-Bro-Bri Outdoor Education Program, Coe Lake, C.L.O.S.E., Environmental Science and AP Environmental Science.

The environmental education curriculum is inquiry-based and pays particular attention to scientific practices, 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, and applications based on evidence. Students in kindergarten, grade 3, grade 4 and grade 6 have meaningful outdoor experiences (an investigative or experiential project that engages students in critical thinking, problem solving and decision-making) specific to a unique curriculum.

Advance course options provides curriculum that demonstrates the connection between classroom content and college and career readiness, particularly to post-secondary options that focus specifically on environmental and sustainability fields, studies and/or careers for the following courses: Biology, AP Biology, Physics, AP, Anatomy and Physiology, Environmental Science, AP Environmental Science, Project Lead the Way Biomedical and PreEngineering.



Project Lead The Way (PLTW) is a rigorous and innovative STEM (science, technology, engineering and math) education curricular programs used in schools is offered through a Polaris and Berea City School District partnership. The Project Lead the Way® Pre-Engineering program and Biomedical Sciences™ program are four year sequence of courses which, when combined with high school mathematics and science, will introduce you to the scope, rigor and discipline of engineering and the broad field of medicine and biomedical sciences respectively. At the high school level, two percent of BMHS graduates last year completed Advanced Placement Environmental Science during their school career. 80 percentage of AP students scored three or better on the Advanced Placement Environmental Science assessment. 83.4% of Berea students scored proficient or better on the state science education assessments last year.

This year, we continue to develop STEM opportunities for the future. The district is collaborating with our local career technical high school to offer STEM learning courses in grades 7 and 8. Beginning in the 2015 school year, seventh and eighth grade students will take Project Lead the Way – Gateway course: Design and Modeling for middle level learners. In 2016, the district plans to offer Automation and Robotics. The district is committed to development, planning and expansion of these opportunities for our students.

This application demonstrates the district’s progress toward each of the goals in the three Green Ribbon "Pillars," which are: Net zero environmental impact; Net positive impact on the health and performance of students and staff; 100 percent of the school or district’s graduates are environmentally and sustainability literate. The influence of green trends cannot be underestimated when considering the impact on our most precious resource, our learners. Berea City Schools realizes that through the district’s collective efforts and energy, we have begun to work towards achieving the Green Ribbon “Pillars” in order to achieve that end in an ongoing process.

SUBMISSION

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

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

Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.



OHIO GREEN RIBBON SCHOOL APPLICATION FORM

Part One:

School: Berea City School District

District: Berea City School District

Contact person(s): Karen Frimel, Director of Academic Affairs

Email: kfrimel@berea.k12.oh.us Phone: 216-898-8840 ext 6260

Part Two: Summary narrative

Provide an 800-word maximum narrative describing your school or district's efforts to reduce environmental impact and operating costs; improve students' and staff members' health; and provide effective environmental and sustainability education. Focus on unique and innovative practices and partnerships. Use the bullets below as a guide to frame your narrative and include relevant information that the reviewers are looking for during their evaluation of your application.

Insert narrative here:

The Berea City School District (BCSD) has taken proactive steps in good stewardship to reduce environmental impact and operating costs; improve students' and staff members' health; and provide effective environmental and sustainability education through several focused initiatives related to operations, wellness, health and environmental education. As an active partner with Cenergistic, an ENERGY STAR partner since 2005, the school district was awarded the *District Energy Stewardship Award* recognizing good stewardship resulting in a positive impact on the environment, including decreased carbon emissions and the conservation of natural resources, presented by Cenergistic.

The district has joined in the "Clean Fuel Initiative" which is one of several steps that the Transportation Department has taken to burn cleaner-burning low emissions High Performance Clean Diesel (HPCD) to positively impact the environment. The district partnered with EcoChem Alternative Fuels to thoroughly clean its fuel storage tanks prior to the fuel delivery of HPCD. This eliminates the historical sediment build up. Other steps within the Transportation Department include more efficient bus routing and GPS monitoring system. Grindstone Elementary School has qualified for *LEED GOLD* certification. This was earned through points generated through the use of recycled and regionally obtained materials, the building scored highly in both categories related to developing a sustainable site and also in energy efficiency (through the use of a geothermal heating and cooling system). This high rating was achieved because of the diligence in design expectation established by the district through a high score in energy efficiency (10 points out of a possible 10 points). The district is awarded the USDA's Healthier U.S. School Challenge Bronze Award winner for school food through the leadership of our Nutrition Services. The district is a long-standing partner with the Cleveland Clinic and several of its health-focused

initiatives and is a recipient of the *Cleveland Clinic Eat Right at School District* and the *Be Food Safe School District*.

Berea City School District has developed educational programs and opportunities that promote conservation and environmental practices across grade levels. This includes specialized programs such as Environmental Clubs, Camp-Mi-Bro-Bri Outdoor Education Program, Coe Lake, C.L.O.S.E., Environmental Science and AP Environmental Science.

Part Three: PILLAR ONE: Net zero environmental impact

Provide a 1,500-word maximum narrative of how your school or district is progressing toward elimination of GHG emissions and waste as well as water and energy conservation. Below are guiding questions to help frame your narrative. (Element 1A: Zero greenhouse gas (GHG) emissions)

Insert Narrative Here:

Our district is progressing toward elimination of GHG emissions and waste as well as water and energy conservation. Currently, our district is in the initial stage of submitting all buildings as a part of the U.S. Environmental Protection Agency's ENERGY STAR certification program. We are anticipating a certification being awarded for the 2014 program. We are anticipating a certification being awarded for the 2014-20145 school year based upon our partnership with Cenergistic, policies enacted, and implementation of the district's Energy Conservation Program.

The district has made a commitment to an Energy Conservation Program. This is a unique organizational behavior-based energy conservation program that looks at changing human behavior. Through their partnership with Cenergistic, the district has contracted an Energy Specialist to help the district reduce consumption of electricity, natural gas, fuel oil and water. The district's program looks at optimizing the district's infrastructure through systematic oversight of utilities and operations, ongoing improvement of internal processes and intentional strategies to change behaviors at building sites to ensure enduring savings. Ongoing and regular assessments review functionality of heating, ventilating and air conditioning equipment, door and window insulation performance, on/off usage of computers and lighting, and plumbing and irrigation systems. Data is collected regularly and analyzed to inform decisions and actions. The districts Energy Conservation Program includes motivational and educational components as well.

Through this program, the district has reduced its total non-transportation energy use (i.e., electricity, lighting and temperature control) from an initial baseline within the model of this program by 12.1 %.

By design, energy-saving programs in walk-throughs and audits have promoted turning off lights and other technology and office equipment to save energy.

In reviewing the Energy Conservation Program – Summary CAP (attached 19B, 15A, and 15) Cumulative Energy Savings provides a summary of the actual energy usage for electricity, gas, etc. The cumulative greenhouse gas reduction (GHGR) for the Energy Reduction Impact of 26,087 MMBTU is equivalent to 3,778 equivalent metric tons of CO₂ from August 2012 to November 2014. This is equivalent to 787 passenger cars not driven for one year or 96,868 tree seedlings grown for 10 years.

Energy consumption and cumulative cost savings from August 2013 – November 2014 (one year) based upon the Energy Reduction Impact is 15,131 MMBTU and from August 2012 – November 2014 (two years) is 26,087 MMBTU.

In reviewing the summary for the Carbon Footprint CAP – 15B, the district has reduced the carbon footprint to 19,252.141 equivalent metric tons.

In August 2011, Grindstone Elementary School opened. Grindstone Elementary School has qualified for *LEED GOLD* rating certification. This was earned with points generated through the use of recycled and regionally obtained materials, the building scored highly in both categories related to developing a sustainable site and energy efficiency (through the use of a geothermal heating and cooling HVAC system). This high rating was achieved because of the diligence in design expectation established by the district through a high score in energy efficiency (10 points out of a possible 10 points). The MMBTU avoided for Grindstone is 3,928. As a new construction, Grindstone has occupy sensors or daylight harvesting controls in the building. Across the district, audit results from other building sites would provide evidence of sporadic sensor and controls in these sites.

The district has established purchasing and procurement policies for energy- and water-efficient products in place. These products are ENERGY STAR rated.

The district's Energy Program delivers an environmental benefit from reduced carbon footprint. Energy not used prevents the emissions of carbon dioxide, sulfur dioxide and nitrogen oxides. According to EPA/EGrid figures, in form August 2012 – November 2014, the district saved 26087 MMBTU. As we reduced our carbon footprint, dropped BTU and kilowatts have been realized as evidenced on Energy Conservation Program CAP – 19, Energy Reduction Impact CAP – 15, Energy Reduction Impact in CO2 CAP – 15A, and Carbon Footprint CAP – 15B attached.

Part Four: Element 1B: Improved water quality, efficiency and conservation.

Provide a 500-word maximum narrative of how your school or district is progressing toward water conservation. Below are guiding questions to help frame your narrative.

Insert Narrative Here:

The district has demonstrated a reduction in total water consumption intensity (measured in gal/square foot) from an initial baseline through the current Energy Program.

Annual audits of specified areas of the facilities and irrigation systems to make sure they are free of significant water leaks and to identify opportunities for savings. This is actuated at Berea-Midpark football and baseball fields. The newly constructed sports facility, Roehm Athletic Complex, by design, installed FieldTurf. By choosing FieldTurf, the district positively contributed to the environment and reduced the carbon footprint in addition to water consumption reduction for the following reasons:

- Reduces impact on water resources
- Reduces the use of chemicals
- Removes tires from landfill sites each year
- Significantly lowers the use of natural gas and other fossil fuels
- Eliminates fuel-powered mowing, aerating, and re-seeding
- Eliminates grass clippings
- Can contribute toward numerous Leadership in Energy and Environmental Design (LEED) credits

Outdoor landscapes consist of water-efficient or regionally appropriate (native species and/or adapted species) Zone 5 plant choices. These plants have zero-maintenance watering requirements.

The district obtains drinking water from Cleveland Municipal Water Department, which monitors lead levels throughout the distribution system.

Taps, faucets and fountains used for drinking and cooking are cleaned on a regular basis to reduce possible bacterial and other contamination. Faucet aerators are cleaned as needed.

Berea-Midpark High School has devoted outdoor area to ecologically or socially beneficial uses, including those that give consideration to native wildlife to promote rain gardens.

A prior school site of the district, Riveredge Elementary School, is now the site of the Berea Community Learning Farm. Approximately one acre on the western end of the Riveredge property that the Berea school district has given to CSA – Community Supported Agriculture – where people may buy shares and pick up their produce, which will be grown in a chemically free environment using heirloom seeds. Some will be given to local food pantries and others may be sold at a farmers market at the property.

Part Five: 1C: Reduced waste production.

Provide a 500-word maximum narrative of how your school or district is working toward elimination of all solid or hazardous waste through, reduced consumption, reuse practices and recycling. Below are guiding questions to help frame your narrative.

Insert Narrative Here:

Waste

When possible the district uses post-consumer materials or materials managed by the Forest Stewardship Council, Sustainable Forestry Initiative, American Tree Farm System or other certification standard.

Hazardous waste

Any hazardous waste is disposed through an EPA approved vendor on an annual or as needed basis. The district has a Hazardous Waste Policy in place and it is actively enforced for storage, management and disposal of chemicals, and hazardous waste in laboratories and other areas.

100% of total computer purchases are Electronic Product Environmental Assessment Tool (EPEAT) certified products. As a primary provider to our district Required criteria that all of Dell's EPEAT registered products meet include the United States Department of Energy and Environmental Protection Agency's (EPA) ENERGY STAR program, the European Union's RoHS directive, marking of plastic parts, providing a design that easy to disassemble and upgrade, providing a take-back recycling service, having a corporate environmental management system (EMS) and producing an annual report of our environmental activities. Disposal of technology, computers and other electronic products is in compliance with board policy.

The district uses certified "green" seal cleaning products that meet the environmental standards of established eco-label programs.

Is your custodial program certified by the ISSA Cleaning Industry Management Standard - Green Building (or an equivalent standard)? The custodial program utilizes ISSA cleaning standards for staffing and processes within the custodial operation. However, we do not have a designation from ISSA for our operation.

Currently the district is studying how to move towards a program that reduces was and eliminates hazardous wastes.

Part Six: Element 1D: Use of alternative transportation to, during and from school.

Provide a 500-word maximum narrative of how your school or district is working toward alternative transportation or upgrading current modes of transportation. Below are guiding questions to help frame your narrative.

Insert Narrative Here:

In accordance with district policy 8615 and accordance with the Environmental Protection Agency's (EPA) initiative to reduce air pollution from diesel school buses, the Board of Education has developed guidelines for anti-idling for school buses.

The school/district transportation fleet is efficient and environmentally friendly and the school/district-owned fleet has been retrofitted to use High Performance Clean Diesel (HPCD) to increase emission reduction.

The district has joined in the "Clean Fuel Initiative" which is one of several steps that the Transportation Department has taken to burn cleaner-burning low emissions High Performance Clean Diesel (HPCD) to positively impact the environment. The district partnered with EcoCHem Alternative Fuels to thoroughly clean its fuel storage tanks prior to the fuel delivery of HPCD. This eliminates the historical sediment build up. Other steps within the Transportation Department include more efficient bus routing and GPS monitoring system.

Part Seven: PILLAR TWO: Net positive impact on student and staff health

2A: An integrated school/district 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.

Provide a 1,500-word maximum narrative of how your school or district is progressing toward improving the quality of health for students and staff. Below are guiding questions to help frame your narrative.

Insert Narrative Here:

Integrated Pest Management

The district has a hygienic management plan that includes an Integrated Pest Management program (IPM) for the control of structural and landscape pests that minimizes the use of pesticides while addressing pest control.

The IPM program will include procedures for prevention, identification, control, and monitoring of pests and conditions that attract pests; education and training; approved least-toxic chemical use and pre-notification of chemical use. Annual audits are conducted of the plan to identify areas of strength and weaknesses in order to align to best practices and protocols. All relevant personnel have commercial application certification through the Ohio Department of Agriculture at all sites.

Parents and school employees are notified about your pest control policies, methods of application and requirements for posting and pre-notification.

Annual summaries of pesticide applications, copies of pesticide labels, copies of notices and Material Safety Data Sheets (MSDSs) in an accessible location.

Children are prohibited from entering the pesticide area for at least eight hours following the application or longer, if feasible, or if required by the pesticide label.

Ventilation

The school district does not consistently meet the stricter of: ASHRAE Standard 62.1-2010 (Ventilation for Acceptable Indoor Air Quality) OR your state or local code. It is dependent upon the site.

At Grindstone Elementary School has recovery ventilation systems, that bring in fresh air while recovering the heating or cooling from the conditioned air.

Contaminant Controls

The district recycles and disposes of unwanted mercury laboratory chemicals, mercury thermometers, gauges and other devices in accordance with federal, state and local environmental regulations.

Smoking and tobacco is prohibited on the campus. Signs are posted around the campus.

All district kitchens are outfitted with carbon monoxide detectors.

In order to regulate moisture control, all structures are visually inspected on a regular basis and free of mold, moisture and water leakage.

Part Eight: 2B: High standards of nutrition, fitness and quantity of quality outdoor time for both students and staff.

Provide an 800-word maximum narrative of how your school or district is progressing toward improving the physical health for students and staff. Below are guiding questions to help frame your narrative.

Insert Narrative Here:

The average amount of time over the past year that each student engages in school-supervised physical education and/or outdoor time per week for the following grade bands:

- Kindergarten – Grade 4: 210 minutes/week
- Grade 5 – Grade 6: 90 minutes/week
- Grade 7: 80 minutes/week
- Grade 8 – Grade 9: 135 minutes/week

The district offers a comprehensive physical education program that values fitness and health as a primary components. In the 2012-2013 school the district made a commitment to move towards a fitness focus to physical education by increasing the amount of physical education courses required in grade. The grade 9 “Fitness” physical education course is provided and is a requirement for all students grades K-9. It is an introduction to the foundations of Physical Education with emphasis on cardiovascular and core fitness training, water safety and a variety of lifestyle fitness activities. This course will explore all of the elements of a personal fitness plan including spinning, weight training, walking, jogging, swimming and Pilates. This course uses My Zone Heart Rate monitors to measure progress and fitness.

Berea-Midpark High School has a “Rain Garden” that is used by students enrolled in science courses.

Coe Lake Nature Trail & Riparian Restoration Project: The Coe Lake Project is intended for use by students of the school district and community members as a land lab to facilitate an appreciation for the natural environment through the teaching of science and history. Our wildlife habitat has been nationally certified through the National Wildlife Federation as an official "Wildlife Habitat". Soon a sign will adorn the habitat. Our wildlife habitat # is 105284. It serves as a mini-refuge because of conscientious planning, landscaping, and sustainable gardening. Wildlife find quality habitat- food, water, cover and places to raise their young at Berea-Midpark High School.

Food

The district has earned USDA's Healthier U.S. School Challenge Bronze award for school food.

Five percent of food purchased is grown and processed within 200 miles of the school/district (including food grown on school grounds)?

Part Nine: PILLAR THREE: 100 percent of the school or district's graduates are environmentally and sustainability literate

There are many pathways to achieving a 100 percent environmental and sustainability literacy rate. Provide a 1500-word maximum narrative about how your school or district is progressing toward improving the Environmental Literacy for students and staff. Below are guiding questions to help you frame your narrative.

Insert Narrative Here:

Berea City School Districts science curriculum is aligned to the 2010 Ohio New Learning Standards and for Advance Placement Courses – College Board Requirements.

Environmental and sustainability concepts are integrated throughout the curriculum in grades K-12.

Two percent of BMHS graduates last year completed Advanced Placement Environmental Science during their school career.

80 percentage of AP students scored three or better on the Advanced Placement Environmental Science assessment.

83.4% of Berea students scored proficient or better on the state science education assessments last year.

Professional development opportunities in environmental and sustainability education are available to all teachers at least every other year.

The environmental education curriculum is inquiry based and pays particular attention to scientific practices, 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, and applications based on evidence.

Students in kindergarten, grade 3, grade 4 and grade 6 have meaningful outdoor experiences (an investigative or experiential project that engages students in critical thinking, problem solving and decision-making) specific to a unique curriculum.

Berea Midpark High School has a "Rain Garden"

Camp Mi-Bro-Be is a weeklong outdoor education program offered to all sixth graders. Each "team" of sixth grade students get the opportunity to camp in the beautiful woods of Camp Whitewood. Teachers and high school students lead the grade 6 students through interdisciplinary units of study that focuses on 21st Century literacies and skills focusing on the environment, nature, communication, creativity, critical thinking, problem solving and leadership building.

The philosophy of the Mi-Bro-Be Outdoor Educational Program is to provide growth experiences that will increase the students' understanding and appreciation of the natural environment they share with fellow human beings. The outdoors provides living and learning situations that extend and encourage application of facts and ideas learned within the regular setting.

The program curriculum includes specific learning goals. Students will be able to:

- Identify and classify trees, rocks and animals
- Study natural habitats and ecological principles
- Distinguish, describe, and demonstrate conservation and environmental practices
- Engage in problem-solving and discovery related to the natural environment
- Demonstrate personal responsibility and self-discipline
- Establish an appreciation of personal and cultural diversity by living with others cooperatively

Coe Lake Outdoor Science Education (C.L.O.S.E) is designed for students who have a desire to be outdoors and teach kindergarten, 3rd and 4th grade students of the Berea City School District about

our natural world and the impact humans have upon it. There are two components of this course: 1) Field/Teaching component where the high school student will teach an integrated science curriculum to elementary students at The Coe Lake Nature Trail in Berea and 2) Environmental Science Component which places emphasis on the study of the Earth and its unique life-supporting characteristics and the associated energy changes. Special projects will be integrated to improve our role and impact on our local environment. For more information go to <http://coelake.wikispaces.com/HOME+PAGE>

Coe Lake Nature Trail & Riparian Restoration Project: The Coe Lake Project is intended for use by students of the school district and community members as a land lab to facilitate an appreciation for the natural environment through the teaching of science and history. Our wildlife habitat has been nationally certified through the National Wildlife Federation as an official "Wildlife Habitat". Soon a sign will adorn the habitat. Our wildlife habitat # is 105284. It serves as a mini-refuge because of conscientious planning, landscaping, and sustainable gardening. Wildlife find quality habitat- food, water, cover and places to raise their young at Berea-Midpark High School.

Part Ten: 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.

Provide an 800-word maximum narrative of how your school or district is progressing toward improving the use of the environment and sustainability to improve STEM knowledge and problem-solving skills. Below are guiding questions to help frame your narrative.

Insert Narrative Here:

Students in Berea City School district graduate with a robust general science education that includes a deep understanding of life, physical and earth sciences. The district has a comprehensive educational program with a well-developed learning progressions for advanced science courses in grades 9-12.

These are the percentages of high school students enrolled in the following science courses:

- Anatomy and Physiology – 6%
- AP Environmental Science – 2%
- AP Biology – 1%
- AP Physics – 1%
- Astronomy – 9%
- Biological Science – 25%
- Chemistry – 23%
- Coe Lake Outdoor School Education – 3%
- Physical Science – 25%
- Zoology – 8%
- Statistics – 3 %
- AP Statistics – 3%
- PreEngineering (PLTW) – 10%
- Biomedical (PLTW) – 9%
- Physical Science (HS Course taken by Grade 8 Students) 10%

The curriculum provides a demonstrated connection between classroom content and college and career readiness, particularly to post-secondary options that focus specifically on environmental and sustainability fields, studies and/or careers for the following courses: Biology, AP Biology, Physics, AP, Anatomy and Physiology, Environmental Science, AP Environmental Science, Project Lead the Way Biomedical and PreEngineering.

Project Lead The Way (PLTW) is a rigorous and innovative STEM (science, technology, engineering and math) education curricular programs used in schools is offered through a Polaris and Berea City School District partnership. The Project Lead the Way® Pre-Engineering program

and Biomedical Sciences™ program are four year sequence of courses which, when combined with high school mathematics and science, will introduce you to the scope, rigor and discipline of engineering and the broad field of medicine and biomedical sciences respectively. Each course will allow you to solve real-world problems through a series of hands-on exercises.

Project Lead the Way (PLTW) premier high school program, Pathway to Engineering, is a four-year course of study integrated into the students' core curriculum. The combination of traditional math and science courses with innovative Pathway to Engineering courses prepares students for college majors in engineering and E/T fields and offers them the opportunity to earn college credit while still in high school. Pathway To Engineering™ courses engage high school students through a combination of activities-based, project-based, and problem-based learning. Courses include: Introduction to Engineering Design (IED), Principles of Engineering (POE), Digital Electronics (DE), Engineering Design and Development (EDD)

The Project Lead the Way (PLTW) Biomedical Innovations program is a high school program divided into four sections, each section building upon the previous. This dynamic program uses hands-on, real-world problems to engage and challenge students. Students interested in math, science, and the human body will find the PLTW Biomedical Sciences program a great introduction to the numerous medical fields. The Biomedical Sciences program is integrated into the high school curriculum. It is designed to augment the high school science and math college paths. Course paths include: Principles of Biomedical Sciences (PBS), Human Body Systems (HBS) and Biomedical Innovations

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

Provide a 500-word maximum narrative of how your school or district is progressing to improve civic and community partnership toward sustainability. Below are guiding questions to help frame your narrative.

Insert Narrative Here:

Community and Civic Engagement

Based upon Board Policy, students enrolled prior to graduation are required to complete the Citizenship Participatory Project (CPP). While some students tie this to an environmental focus, it is not required. This current course is under revision.

A primary indicator of our progress toward the goal of 100 percent of Berea's graduates being environmental and sustainability literate is the ongoing sustained commitment that whole grade levels early on in children's career paths participate in core the CLOSE course.

Each spring, Berea High students enrolled in the Coe Lake Outdoor Science Education Field Experience teach the district's kindergarten, third- and fourth-graders about the environment, recycling, nature and other related subjects. The curriculum is aligned with various Ohio New Learning Standards.

Part Twelve:

Submit your application with narrative to OhioGreenRibbonSchools@education.ohio.gov. Please attach any supporting documents mentioned in the narrative to show the qualifications of your school or district.

If you have questions during this application, please contact the executive director, Environmental Education Council of Ohio at director@eeco-online.org.

Big Creek Elementary School

7247 Big Creek Parkway, Middleburg Heights, Ohio 44130

Phone (216) 898-8303. *Fax* (216) 898-8562

Brook Park Memorial School

16900 Holland Road, Brook Park, Ohio 44142

Phone (216) 433-1350. *Fax* (216) 676-2073

Brookview Elementary School

14105 Snow Road, Brook Park, Ohio 44142

Phone (216) 676-4334. *Fax* (216) 676-2074

Grindstone Elementary School

191 Race Street, Berea Ohio 44017

Phone (216) 898-8305. *Fax* (216) 898-8563

Ford Intermediate School

17001 Holland Road, Brook Park, OH 44142

Phone (216) 433-1133. *Fax* (216) 676-2072

Middleburg Heights Junior High

7000 Paula Drive, Middleburg Heights, OH 44130

Phone (216) 676-8400. *Fax* (216) 676-2070

Berea-Midpark High School

165 East Bagley Road, Berea, OH 44017

Phone (216) 898-8900. *Fax* (216) 898-8558