



2014-2015 School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes grades Pre-K-12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

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

Charter Title I Magnet Private Independent

Name of Principal: **Mrs. Amanda Thompson**

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

Official School Name: **Lake Mills Elementary School**

(As it should appear on an award)

Official School Name Mailing Address: **155 E. Pine Street, Lake Mills, WI 53551**

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

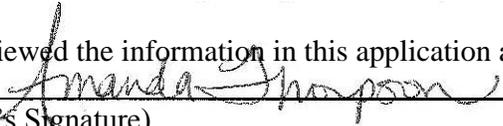
County: **Jefferson** State School Code Number *: **2898**

Telephone: **920-648-2338** Fax: **920-648-5490**

Web site/URL: **www.lakemills.k12.wi.us/pes** E-mail: **Amanda.Thompson@lakemills.k12.wi.us**

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

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


(Principal's Signature)

Date: **January 23, 2015**

Name of Superintendent: **Mr. Dean Sanders**

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



District Name: **Lake Mills School District**

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

Dean E. Donald Date: **January 23, 2015**
(Superintendent's Signature)

Nominating Authority's Certifications

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

1. The school has some configuration that includes grades Pre-K-12.
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: **Wisconsin Department of Public Instruction**

Name of Nominating Authority: **State Superintendent Tony Evers, PhD**

(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.

Juli Stypson Date: **January 26, 2015**
(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

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

SUBMISSION

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

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

Public Burden Statement

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

**U.S. Department of Education Green Ribbon Schools
Summary of Achievements
for
Lake Mills Elementary School**

This school year, more than 600 students in kindergarten through grade 4 attending the rural Lake Mills Elementary School (LMES) walked through the doors of a newly constructed green and healthy building, and the only K-12 school to pilot the LEED v4 Beta program. While LEED recognizes “facility” achievement similar, the school has also established benchmarks green behaviors, policies & healthy measures from an operation & maintenance perspective, encouraging Lake Mills Area School District to implement additional measures to further create a healthy, high-performance, & safe twenty-first century learning environment. From facility to health and wellness initiatives to environmental education, Lake Mills Elementary School has gone above and beyond to provide a green and healthy environment for their staff and students.

Pillar I: Reduced Environmental Impact

Lake Mills Area School District’s sustainable journey began in 2008 with the renovation and expansion of their middle school, also certified Platinum LEED, Energy Star, and Wisconsin Green & Healthy School. The success of this first project supported the continuation of LMASD’s sustainability journey with their newly constructed Elementary School. The school building, oriented east-west to maximize daylight harvesting and passive heating in the winter, features renewable energy technologies including photovoltaic, solar thermal, and geothermal. In addition, the school is equipped with LED lighting with automatic dimming, occupancy and daylighting sensors, and Energy Star appliances. The design team anticipates this new school receiving Platinum level in the new LEED v4 program as well as an Energy Star score of 82.

The school has planned landscaping with all native or adaptive vegetation to avoid irrigating. Bioswales allow 100% of the school’s stormwater to re-infiltrate onsite. The school reserves 5% of the parking stalls for carpool parking and hybrid/low-emitting vehicles. Alternative transportation is further encouraged by offering bike racks and a shower facility.

Pillar II: Improved Health & Wellness

Health and wellness initiatives go hand-in-hand with environmental sustainability initiatives at LMES. To help the indoor environmental quality remain high, LMES provided a Green Classroom Professional (GCP) in-service training as a part of the 2013 “Green Apple Day of Service.” As a result, they are the first world-wide to have 100 percent of their staff certified as GCPs, demonstrating they have the knowledge to identify what supports or impedes healthy, resource efficient and environmentally sustainable learning spaces, enabling them to recognize, adopt, and implement practices that keep themselves and their students focused, alert and ready to learn. After completing the course and exam, the staff is now able to support the health of school occupants and provide the best physical indoor environment possible to support academic performance, which decreases absenteeism due to environmental factors, supports environmentally responsible practices by saving energy and water, and fosters an appreciation among future generations for environmentally sustainable practices.

In addition, alternative transportation initiatives include supporting “active transportation” such as semi-annual bike/walk to school days. In the lunchroom, students are offered salad bar and fresh fruits and vegetables daily. The school’s design indoor air quality program is consistent with EPA’s IAQ Tools for Schools guidelines. Care was taken in the selection of new furniture to ensure low-vocs to maintain good air quality.

Pillar III: Effective Environmental and Sustainability Education

LMASD understands the importance of environmental education and how it directly connects to and supports their mission, “...inspires our students to be responsible citizens with integrity.” To aid in the staff’s understanding of their new green school, teams from the architectural firm, EUA, and the construction company, Miron, presented basic green building concepts, who USGBC/GBCI are, what LEED for Schools is, and what all of the “green”

features, systems, equipment & finishes are in the new school. Amanda Thompson, and the “Green Team” of staff representing each K-4 grade level, focused on how sustainability could be further incorporated into the daily operations of the classrooms & how they could integrate environmental education into their classroom curriculum. The Green Team worked with experts to take portions of Wisconsin’s forestry (LEAF) and energy (KEEP) programs and use the sustainable features of the school to design and integrate 10 hours of environmental education curriculum per year, per full-time student, that explores the relationship between human ecology, natural ecology & the building.

The physical building of LMES is a phenomenal environmental education resource. A web-based Eco-Screen has been incorporated into the facility enabling teachers to access the Eco-Screen from their classroom smart boards as well as from a kiosk located in the Commons. The Eco-Screen utilizes real-time energy & water usage data along with real-time renewable energy production data from the 10kW PV system and the solar thermal hot water system, and provides explanations of how the systems work, links to resources, lesson plans, and activities. A whole-building “eco-tour” has been created to physically demonstrate how specific building features have included flexibility, safety, security, and sustainability to promote twenty-first century learning. The features are identified via the LEED category symbols and QR codes. Thru the use of mobile devices, the QR codes play videos explaining how the energy-related features of the facility work. It is hopeful that eventually the 4th grade students will be able to provide tours of the school & will be able to share their personal experiences of being in a high-performance, healthy twenty-first century learning environment.

Cross-Cutting Questions

LMES is recognized as a “Sugar Maple” School through Green & Healthy Schools Wisconsin. In addition, they are a nationally certified PLT *GreenSchool!* To extend learning into the community and beyond the school currently offers tours one day per month. To educate the public, the LEED scorecard & Project Profile have been created to identify the LEED award level and credits earned, and to share the project background, sustainable strategies and results. There is also a “[New Building Update](#)” on LMES’s website. Focusing on the journey, the process, the costs, & LEED, thousands of people have toured the school, many presentations/tours have been given, educational sessions at national conferences have been well-attended, including: WGBA’s SE2 Conference in Milwaukee (10/04/13), USGBC’s Greenbuild Conference in Boston (10/22/13), the National Green Schools Conference in Sacramento (03/08/14), Greening of the Heartland in Chicago (09/30/14), USGBC’s Greenbuild Conference in New Orleans (10/22/14), & the Midwest Facilities Conference (11/03/14). LMES has also hosted several events, including the Dedication & LEED v4 Beta Program Celebration (10/10/14).

Scoring and Highlights:

The complete state application is too long to include in this nomination submission, so the applicant's information has been summarized in the following pages, aligned with the pillars and elements. Each application was ranked by teams of external reviewers and internal reviewers, each with different areas of expertise, using a common ranking tool. In addition, the slate of nominees was forwarded to related state and federal agencies to ensure there were no compliance or regulatory issues.

Lake Mills Elementary School serves 634 students and has 72 staff. There are 3 total buildings in the district (elementary, middle, and high school).

The summary of the nominee's achievements as reported in their application is presented in each pillar and element below. The focus area is in reference to Wisconsin's application structure.

Pillar I: Reduced Environmental Impact

Element 1A: reduced or eliminated green house gas (GHG) emissions

Focus Area: Energy

The school worked with Focus on Energy to complete an audit in September 2014. The school received over \$125,000 in incentives from Focus on Energy. Sustainable Engineering Group completed the energy model and final building commissioning for energy-related systems and the building envelope in November 2014. The USGBC has confirmed 71 points have been earned in the LEED for Schools v4 Beta Program; the team is still in the process of submitting another 15 points.

The new building was substantially completed for the start of the 2014-2015 school year. While the project is eligible to earn ENERGY STAR certification (as indicated by the energy model which predicts the ENERGY STAR score to be 82 and is estimated to be 50% more energy cost efficient than a code-compliant school), the facility must be operational for 1 year. The data is being collected and the team will apply for ENERGY STAR certification in the fall of 2015, as soon as the project is eligible.

LMES has an energy and water efficient product purchasing and procurement policy in place. School has developed an Energy Policy Plan that was finalized on 11/17/14; the project team and District has been working on this since 2012.

LMES is the only K-12 school that piloted USGBC's LEED v4 Beta program, which significantly raises the sustainability bar. It has achieved credit for the MR credits (EPDs, Sourcing of Raw Materials, and Material Ingredients).

The school utilizes daylighting and generates 1.83% by cost of its total energy use using renewable technologies:

- ✓ Photovoltaic (PV)/Solar Electric
 - Project includes a 10 kW roof mounted PV system and a 7.3 kW (2 therms) 4-panel SHW roof mounted system..
- ✓ Solar Thermal (air/water)
- ✓ Geothermal

LMES has maximized their FOE incentives at \$100,000 and has received an additional \$25K+ for renewable energy systems and other energy-efficiency measures from LML&W & FOE.

- ✓ Switched to energy efficient lighting. Comments: LED light fixtures w/ automatic dimming. Complies with SSc6 Light Pollution Reduction, contributes to EAc2 Optimize Energy Performance, EQc6 - Interior Lighting and is currently measuring daylight
- ✓ Installed occupancy and daylight sensors.
- ✓ All appliances, including water coolers and ice machines are ENERGY STAR certified. No other vending machines are installed in school
- ✓ Upgraded to a more energy efficient HVAC system. Optional Comments: The geothermal heating and cooling system, energy recovery units, building envelope, lighting systems, 10 kW PV system, and solar thermal hot water contribute the entire facility being 50% more energy cost efficient than a code-compliant building.

- ✓ Other: The kitchen equipment & residential washer and dryer are ENERGY STAR compliant and are water efficient as well.

Additional progress towards energy conservation and/or efficiency of the school facilities:

Programmatic & operational, practicality, cost (first & life cycle), orientation, massing, roof color & envelope attributes were calculated and/or modeled. Orientation is east-west which is ideal for daylight harvesting & passive heating during the winter. Optimal insulation levels were installed to minimize infiltration. Optimal window to wall ratio is 35%. Windows are thermally broken & the design avoids thermal bridging. Different glazing types were specifically located to maximize energy efficiency & daylighting & minimize heat gain & glare. A clerestory is installed the entire length of the 2nd floor to enhance daylighting. Interior finish & furniture colors & reflectance values were considered for lighting quality & promote daylighting. Dimmable LED fixtures & daylight sensors are in the perimeter zone to further increase energy efficiency. Occupancy sensors reduce lighting levels & control the HVAC system when the spaces are unoccupied. ENERGY STAR laundry & kitchen equipment further reduce energy consumption. 50% of outlets are occupancy controlled to reduce plug load. Lighting, HVAC, & plug loads are on separate panels & are individually monitored.

The school has implemented behavioral changes to reduce energy consumption in the following ways:

All LMES staff have earned the Green Classroom Professional Certification (GCP) in 09/28/2013. As GCPs the staff has learned how to integrate sustainability into the daily operations of the classroom & has integrated 10 hours of EE into their curriculum to explore the relationship between human ecology, natural ecology & the building features. A web-based Eco-Screen is accessible from all classroom smartboards that shows real-time energy, renewable energy & water data. It has web-based resources, explanations of how the systems work, lesson plans, activities, & links the teachers can use for EE purpose. It enables staff to combine the EE lesson plans and activities to explore the relationship between human ecology, natural ecology & the building. The entire learning environment offers many visual clues that remind staff & students to be environmentally conscious & act in a responsible way to demonstrate sustainable stewardship. Through their EE-based curriculum students learn basic EE concepts & explore the relationship between human ecology, natural ecology & the building features. Their library contains an entire section dedicated to being green. The Facility Management Team has hands-on working knowledge of the energy-related & controls systems. They monitor energy use.

Professional development is offered to staff in regarding energy and/or energy education:

The design/build team presented basic green building concepts, who USGBC/GBCI are, what LEED is about, what LEED for Schools is about, and what all of the “green” features, systems, equipment and finishes that were incorporated into the new LMES to the “Green Team” of staff, which represented each grade level (K-4). During an in-service training in the 2013-2014 school year, the entire staff was presented with an overview of the Green Classroom Professional Certification Program, took the 2-hour online training and successfully passed their tests. LMES is the first school in the world to have 100% of their staff credentialed as Green Classroom Professionals. This event was documented as Lake Mill’s “Green Apple Day of Service”. Afterwards, meetings were held to discuss how sustainability could be incorporated into the daily operations of the classroom and how 10 hours of EE could be integrated into their curriculum that would explore the relationship between human ecology, natural ecology and the building features. On 06/18/14, 3 WAEE staff spent a day the “Green Team” learning about the sustainable building & site features & integrating specific EE learning opportunities into each of their respective grade levels’ curriculum.

Additional progress made towards energy education:

LMES has been preparing to move into their new high-performance, healthy, twenty-first century learning environment since 2012. They have several events including: Earth Day presentations, contests, dedication events, and students have created videos about "going green". The design/build team has spent countless hours with the staff teaching them about sustainability and has donated many resources to LMES to aid the teachers in easily implanting EE into their curriculum, including creating resources that the staff requested that was not available. Since 2008, the Design/build team also spent countless hours with the Facilities Management staff teaching them about how to manage and control their energy use and how to properly operate and maintain their high-performance and renewable energy systems at both the Middle &

Elementary School. The local utility and FOE staff has also been involved. Middle School students held a 3-day Earth Day fair for the community thanking them for their support and taught them about the sustainable building features of their new Middle School. Open house has been held at the Elementary School.

Element 1B: Improved water quality, efficiency, and conservation

Focus Area: Water

The school's drinking water comes from a municipal source. The school uses the following practices to increase water efficiency and ensure quality:

- ✓ Our school uses alternative water sources other than potable municipal or well water (ie. grey water, rainwater) for irrigation. LMES has rainbarrels to collect rainwater which is used to manually water native/adaptive plants.
- ✓ Our school's landscaping is water-efficient and/or regionally appropriate. 129,920 sf of restored native/adaptive vegetation. Landscaping was specifically designed with native/adaptive vegetation to avoid an irrigation system.
- ✓ Our school has reduced storm water runoff and/or reduced impermeable surfaces. LMES site was tested and designed to contain 100% of the stormwater onsite via bioswales. Stormwater is infiltrated on site.
- ✓ 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. Cleaned quarterly.
- ✓ Our school has a program to control lead in drinking water (including voluntary testing and implementation of measures to reduce lead exposure). Students are not allowed to dispose of lead. Science teachers dispose of it properly according to Flinn Scientific instructions. Lake Mills Light & Water does water testing. They test LMASD's water for bacteria once a month in each school. They also test their own wells for lead and copper throughout the year.
- ✓ Our school has a medication disposal policy that helps ensure water quality. Both prescription and non-prescription medications that are unwated, expired, left over, etc. are disposed of at the City of Lake Mills Police Dept.'s medication take-back program.

Additional progress the school has made towards improving water quality, efficiency, and conservation:

Indoor Water: LMES has low-flow flush and flow fixtures (toilets, urinals, lavatories, hand wash sinks, classroom sinks, etc.), which is expected to save 320,497 gallons annually. This is a 35.15% water savings compared to the standards set forth in the International Plumbing Code, which is more stringent than U.S. (EPACT) standards.

Process & Appliance Water: The closed-loop geothermal system consumes no water on an annual basis, where as an open-loop system consumes 72 million gal/year and a water-cooled chiller consumes 36,000 gal/year. The residential washing machine and kitchen equipment (dishwasher, food steamer, combination oven, pre-rinse spray valve, & ice machine) are ENERGY STAR certified, which not only means they are energy-efficient, but also consume much less water than the industry standards.

Students and staff identified and implemented water conservation and increased water quality in the following ways:

As GCPs the staff has learned how to integrate sustainability into the daily operations of the classroom & has integrated 10 hours of EE into their curriculum to explore the relationship between human ecology, natural ecology & the building features. A web-based Eco-Screen is accessible from all classroom smartboards that shows real-time water consumption data. It has web-based resources, explanations of how the systems work, lesson plans, activities, & links the teachers can use for EE purpose. It enables staff to combine the EE lesson plans and activities to explore the relationship between human ecology, natural ecology & the building. The entire learning environment offers many visual clues that remind staff & students to be environmentally conscious & act in a responsible way to demonstrate sustainable stewardship & reduce water consumption. Through their EE-based curriculum students learn basic EE concepts & learn about water use reduction. The Facility Management Team has hands-on working knowledge of the indoor plumbing & process systems, rain barrel, solar thermal hot water system. They monitor water use.

Professional development offered to staff regarding water education:

Basic green building concepts were presented to the Green Team, including the various "water" consuming

equipment and systems that were incorporated into the new LMES. During an in-service training in the 2013-2014 school year, the entire staff was presented with an overview of the Green Classroom Professional Certification Program, took the 2-hour online training and successfully passed their tests. LMES is the first school in the world to have 100% of their staff credentialed as Green Classroom Professionals. This event was documented as Lake Mill's "Green Apple Day of Service". Afterwards, meetings were held to discuss how sustainability could be incorporated into the daily operations of the classroom and how 10 hours of EE could be integrated into their curriculum that would explore the relationship between human ecology, natural ecology and the building features. On 06/18/14, 3 WAEE staff spent a day the "Green Team" learning about the sustainable building & site features & integrating specific EE learning opportunities into each of their respective grade levels' curriculum.

Additional progress your school has made towards water education:

LMES has been preparing to move into their new high-performance, healthy, twenty-first century learning environment since 2012. They have several events including: Earth Day presentations, contests, dedication events, and students have created videos about "going green". The design/build team has spent countless hours with the staff teaching them about sustainability and has donated many resources to LMES to aid the teachers in easily implanting EE into their curriculum, including creating resources that the staff requested that was not available. Since 2008, the Design/build team also spent countless hours with the Facilities Management staff teaching them about how to manage and control their outdoor, indoor & process water consumption at both the Middle & Elementary School. The local utility, Lake Mills Light & Water has also been involved. Middle School students held a 3-day Earth Day fair for the community thanking them for their support and taught them about the sustainable building features of their new Middle School. Open house has been held at the Elementary School.

Element 1B: Improved water quality, efficiency, and conservation

Focus Area: School Site

The school uses the following types of outdoor grounds on or near the school site:

- ✓ Our school has a habitat garden. Approximate size: 53,062 SF Comments: The Pine St. parking lot across the street from the facility has been restored to native/adaptive vegetation. There is also a native/adaptive green roof.
- ✓ Our school utilizes a community park. Comments: LMASD runs the City of Lake Mills' Park & Rec Dept. The ball fields that were previously existing were relocated to a nearby park. The community also uses LMES's gym, cafeteria, library and conference rooms. It is a great example of joint use of facility
- ✓ Our school uses the existing site, lawns, parking areas, playgrounds, etc. for outdoor teaching. 58,728 SF Comments: EE curriculum has been developed to explore areas of the site, including the restored native garden, bioswales, native trees, etc.
- ✓ Our school has integrated natural features into the playground area. 111,790 SF Comments: Dedicated "Educational" outdoor spaces are open and consist of native vegetation and bioswales.
- ✓ Other: Native/Adaptive Vegetated Roof

It is the intention of LMES to start a community garden, however this is still being negotiated.

Additional progress the school has in place to maintain or improve safe, healthy, and environmentally sound grounds:

65% of the 431,650 sf existing LMES site is dedicated outdoor space to enhance the safety, health and well-being of the staff, students and environment: 27,388 sf of playground, 141,917 sf of athletic/activity open space, & 32,872 sf of open (grass). 36% of the total site is planted with native/adaptive vegetation. There is 56,483 sf of hard surface walking & bicycle paths to encourage physical activity. There are two hard-surface parking lots (north and south side of the school) totaling 56,483 sf. The north lot is for parent drop-off and pick-up and visitor parking. The south lot consists of a separate bus lane and staff parking, & a drive for deliveries. Both north & south parking areas have dedicated 5% of the preferred parking stalls for

carpool parking & hybrid/low-emitting vehicles. Alternative transportation is further encouraged by bike racks and a shower facility. Rainwater is managed by replicating the natural hydrology of the site. Runoff rate control, volume control, & water quality treatment are achieved through an infiltration system that removes the TSS from the runoff. LED full-cut lights reduce light pollution. An ESA ensures no site contamination.

The school encourages educational use of the school grounds, school forests, and outdoor teaching sites in the following ways:

As GCPs the staff has learned how to integrate sustainability into the daily operations of the classroom, which extends to the outdoor classroom (site) & has integrated 10 hours of EE into their curriculum to explore the relationship between human ecology, natural ecology & the building/site features. A web-based Eco-Screen is accessible from all classroom smartboards that has a “green” app to indicate when students should open their operable classroom windows. It is also a good indicator to remind staff to take their class outside. The entire learning environment, which includes the site/outdoors, offers many visual clues that remind staff & students to be environmentally conscious & act in a responsible way to demonstrate sustainable stewardship. Outdoor educational signage provides info on the bioswales, restored school prairie, geothermal system, vegetated roof, PV system and solar thermal hot water. Through the EE-based curriculum students learn basic EE concepts & learn about the site features as well as the built environment impacts natural ecology & enhances the health & well-being of the environment.

Professional development offered to staff regarding use of school grounds school forest, and/or outdoor teaching sites in the following ways:

The design/build team presented basic green building concepts, who USGBC/GBCI are, what LEED is about, what LEED for Schools is about, and what all of the “green” features are that was incorporated into the new LMES and the site. Meetings were held to discuss how sustainability could be incorporated into the daily operations of the classroom and how 10 hours of EE could be integrated into their curriculum that would explore the relationship between human ecology, natural ecology and the building features. On 06/18/14, 3 WAEE staff spent a day the “Green Team” learning about the sustainable building & site features & integrating specific EE learning opportunities into each of their respective grade levels’ curriculum. This included the LEAF program.

Element 1C: Reduced waste production

Focus Area: Recycling & Waste Management

The school’s Green Team conducted a formal waste audit in 2011.

The school recycles the following materials:

- ✓ Paper
- ✓ Glass
- ✓ Metals
- ✓ Plastics
- ✓ Ink Cartridges
- ✓ Cell Phones
- ✓ Batteries
- ✓ Other: lamps and appliances

Advanced Disposal is the waste hauler for LMASD. Every classroom and core learning space has paper recycling in addition to trash. The cafeteria has a special recycling bin for co-mingles, paper, and garbage in addition to three smaller bins for interchangeable magnets for recycling a variety of items including ink cartridges, small electronics and batteries. Advanced Disposal has been contacted to see if they will work with the District to set up a milk carton recycling program and to help the 4th grade class conduct a waste audit and help them compost cafeteria food waste.

Recycling bins are clearly labeled, always placed next to trash cans, and are in the following locations:

- ✓ Hallways
- ✓ Classrooms
- ✓ Lunch Room
- ✓ Staff Lounge
- ✓ Main office

- ✓ All classrooms and core learning spaces; all offices.

100% of the school's total office/classroom paper content is post-consumer material, fiber from forests certified as responsibly managed and/or chlorine-free. Earthchoice Colors by Domtar has a 30% Post-Consumer Recycle Content and is SFI certified. The Xerographic Copy Paper is acid-free and has a 30% post-consumer recycle content.

The school does not currently compost onsite but teaches about it in the 4th grade curriculum and has plans to complete a demonstration site by the end of this school year. The school composts school landscape waste material: Leaves and grass clippings are taken to the City of Lake Mills Compost. Advanced Disposal has been contacted to assist w/ milk carton recycling, to work with the 4th grade to do a waste audit and to assist them in setting up a composting program for cafeteria food waste.

Our school has a hazardous waste policy for storage, management, and disposal that is actively enforced. All lamps and appliances are recycled thru Helping Hands Recycling LLC. Their website is: <http://helpinghandsrecycling.com/k-12-schools/>.

Waste reduction, reuse and recycling behaviors are encouraged in the school in the following ways:

Lake Mills Elementary School has 10 hours of Environmental Education integrated into their curriculum for grades K-4. Each grade level has 4 units; one of them being Waste/Recycling. The teachers have been given the resources that enables them to teach about the 4 R's - reduce, reuse, recycling and rot (compost). The new Elementary School has recycling receptacles throughout the school.

Professional development for staff regarding waste reduction and recycling is offered in the following ways:

Advanced Disposal offers to do presentations as well as meet with the facilities management staff of LMASD to provide additional information regarding recycling.

Element 1C: Use of alternative transportation

Focus Area: Transportation

The school offers the following transportation options:

- ✓ Designated carpool parking stalls. 5% of total parking stalls are designated to carpool parking.
- ✓ 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.
- ✓ Programs to encourage carpooling. Preferred parking stalls is offered to staff and visitors in both lots.
- ✓ A plan to regularly review bus routing. Bus routing is reviewed on an annual basis and anytime a new student is enrolled.
- ✓ A policy pertaining to fuel-efficient fleet vehicle purchasing. Preferred parking is provided to low-emitting and fuel-efficient vehicles.
- ✓ Bike racks. Comments: Bicycle racks are provided on the north and south side of the school.
- ✓ LMASD is attempting to establish this w/ the WI Safe Routes To School Program

Through conducting a transportation survey, the school found that 45% percent of students ride a bus and another 44% carpool, another 10% walk and 1% bikes to school All of the teachers participated in a survey with their students to ask how many walk, bike, carpool or are bused to school. They reported their findings thru Skyward software, which was tallied. This survey was taken on November 18. The weather and temperature play into the decision to bike and walk to school. It was explained that the numbers fluctuate significantly based on the weather and temperature.

LMES is reducing pollution by promoting alternatives to conventionally fueled automobiles. They have developed and are implementing a plan for every bus serving the school to meet the following emissions standards within 7 years: NOx emissions of 0.50 grams or less per brake horsepower-hour; and particulate matter emissions of 0.01 grams or less per brake horsepower-hour. The emission standards must be met for each bus and not by an average of the entire fleet serving the school. Their plan also requires that 100% of all other (non-bus) vehicles owned or leased to serve the school to be green vehicles. Green vehicles must achieve a minimum green score of 45 on the American Council for an Energy Efficient Economy (ACEEE) annual rating guide.

LMES offers preferred parking stalls for carpooling and low-emitting/fuel-efficient vehicles. There are also bicycle racks on the north and south sides of the school.

Transportation issues and outdoor air quality are part of the curriculum in some/all grades:

There are 2 bike/walk to school days per year that staff and students are encouraged to bike or walk. There is a lot of discussion around this topic the weeks prior to these two events.

Pillar II: Improved Health & Wellness

Element 2A: Integrated school environmental health program

Focus Area: Environmental Health

The school has fully complied with the state law prohibiting elemental mercury and has an indoor environmental quality plan.

The school employs the following practices to improve contaminant control and ventilation:

- ✓ Our school has a comprehensive indoor air quality management program that is consistent with EPA's Indoor Air Quality (IAQ) Tools for Schools.
- ✓ Our school has taken actions to prevent exposure to asthma triggers such as mold, dust, and pet dander.
- ✓ Our school has an asthma management program that is consistent with the National Asthma Education and Prevention Program's (NAEPP) Asthma Friendly Schools guidelines.
- ✓ 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 for use in the HVAC system.
- ✓ Our school has installed local exhaust systems for major airborne contaminant sources.
- ✓ Our school has CO alarms that meet the requirements of the National Fire Protection Association code 720. CO2 sensors are installed in the gymnasium and cafeteria.
- ✓ Our staff visually inspects all our school's 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).
- ✓ There are no wood structures on school grounds that contain chromate copper arsenate.
- ✓ Our school prohibits smoking on campus and in public school buses.
- ✓ Our school has combustion appliances that are annually inspected to ensure they are not releasing Carbon Monoxide. The hot water heater and make-up air unit is combustable (gas).
- ✓ All of the ground contact classrooms at our school have been tested for radon within the last 24 months. Optional Comments: EMC is the 3rd party source that did the environmental assessment. There is no basement.
- ✓ Radon tests for our school tested at or below 4 pCi/L OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L.

The 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).
- ✓ Selecting third-party certified green cleaning products: in the process of changing over to 100% of all cleaning products are Green Seal certified.

The school controls and manages chemicals routinely used in the school to minimize student and staff exposure: Any space that stores, uses or disposes of "chemicals" has wall-to-ceiling partition walls, hard lid ceilings, self-closing doors, separate exhaust and is negatively pressurized. There are NO chemicals that are used in the classroom setting, including art class, for the Elementary School students.

There is currently not a policy or program for pesticides. LMASD currently contracts out everything inside the school from Ecolab. They strictly ONLY use traps inside the buildings; nothing is sprayed. LMASD contracts Tru Green to fertilize their athletic fields, which are flagged for 72 hours. LMASD is interested in creating a program and policy using the IPM Manual. The school uses the following practices to reduce exposure to pesticides:

- ✓ No pesticides are used; only fertilizer on the athletic fields in the school district. No chemicals are used inside the buildings; only traps.
- ✓ Our school contracts with a certified and licensed pesticide applicator: Ecolab
- ✓ Our school post a notice at the time of pesticide application and for at least 72 hours following application Tru Green applies fertilizer on the athletic fields and flags for 72 hours.

Chemical safety and awareness and mercury information are part of the curriculum in some/all grades:

All Science classes address and educate students on safety practices within their classrooms. This includes chemical awareness and safety. Students and staff wear appropriate personal protection equipment when working with chemicals in classrooms.

Element 2B: Nutrition & Fitness

Focus Area: Health & Wellness

LMASD has many policies, too numerous to include, that relate to the health and well-being of students that are aimed at protecting the safety and physical, mental and emotional well-being of students.

The school provides the following options to promote nutrition and fitness:

- ✓ Our school has a salad bar during lunch.
- ✓ Our school offers fresh fruits and vegetables.
- ✓ Our school uses whole grain foods.
- ✓ Our school has restricted access to foods of minimal nutrition value.
- ✓ Our school has restricted access to beverages of minimal nutrition value.
- ✓ Our school has an on-site indoor exercise room available to students and staff. LMES has a two-station community gymnasium, as LMASD runs the City's Park & Recreation Dept. The Elementary School does not specifically have an indoor exercise room available for students and staff.
- ✓ The school is planning a walking trail around the perimeter of the property. They are currently trying to secure funding.

The school has a policy for harassment and bullying:

LMASD is committed to providing a secure school climate that is free from threat, harassment & bullying behavior that disrupts a student's ability to learn & the schools ability to educate students in a safe environment. Harassment & bullying including cyber bullying is strictly prohibited at school, on school premises, during school-sponsored activities, on school buses and at bus stops, or through the use of electronic, computer and telecommunications messaging devices. All types of bullying behavior exhibited will be investigated & disciplinary action taken. Everyone is to watch for and report acts of bullying; all reports are to be taken seriously and shall be investigated. Everyone shall be protected against any potential retaliation for making such a report. Disciplinary actions will be taken. Lack of reporting known incidents are subject to disciplinary actions. Students shall be provided activities to educate them about the harmful effects of any type of bullying, how to intervene or report observed bullying & the disciplinary consequences of bullying behavior.

The school employs the following practices to promote nutrition, physical activity and overall school health:

- ✓ Our school participates in Movin' and Munchin'.
- ✓ Our students spent at least 120 minutes per week over the past year in school supervised physical education.
- ✓ At least 50% of our students' annual physical education takes place outdoors.

- ✓ Our school promotes hand washing for staff and students.

The following types of outdoor education, exercise and nature-based recreation is available:

LMES has outdoor athletic fields, play areas, a restored short prairie area and two bioswale areas to promote exercise and nature-based education and recreation activities. The curriculum described in this application describes many of the educational outdoor activities. LMES engaged LEAF to learn how to use outdoor spaces on the school site to educate students on environmental issues.

The following professional development, training, or programs are offered to staff regarding health and wellness:
Staff was given training by LEAF.

Health, nutrition, wellness, and physical activity are a part of the curriculum in all grades:

K: Wellness curriculum focuses on "My Body" teaching students about external & internal body parts, body systems, food pyramid, examples of food types, & what living things need in order to be healthy/live (eating well, drinking water, sleeping, exercise, healthy air to breathe). Students learn the importance of water fountains/water bottle stations.

1st: Wellness curriculum focuses "Heart Health". Students explore how increased sunlight exposure is beneficial to human health & well-being.

The school engages staff, students, and the surrounding community to promote health enhancing behaviors and wellness:

LMES encourages healthy snacks daily, including special events and classroom parties.

Pillar III: Effective Environmental and Sustainability Education
Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems

Focus Area: Environmental & Sustainability Education

The school has a scope and sequence that integrates environmental and/or sustainability education as part of the regular coursework at all grade levels and the school has an environmental literacy requirement.

Environmental and sustainability education concepts are integrated throughout the curriculum in grades pre-kindergarten through four. K-4 EE curriculum focuses on the features of the site to provide hands-on learning engaging students.

Energy is taught in the curriculum in the following ways:

1st: Energy cycles. Learn how the sun is needed for all life on Earth, explore how sunlight exposure is beneficial to human health & well-being, explore how food chains sustain life, & describe the life cycles of plants & animals (butterflies, plants, chickens & frogs. Activities: schoolyard food chain walk, a "sun" wick outdoor activity, hatching butterflies & chicks & growing/observing plants. 2nd: Forms of Energy (electrical/sound/elastic/force/mechanical/chemical). Learn about different types of energy (potential vs. kinetic) & how energy is used in their school & perform energy experiments. 3rd: Renewable & other energy. Students are taught to identify renewable & non-renewable energy sources in their school & home life & explore the types of renewable & non-renewable energy technologies. Classroom energy flow is explored. 4th: Using & conserving energy. Students explore how they consume & conserve energy. Resources used include: native plants on the green roof, KEEP activity guide, books, DVDs, activity sheets, the school features, building tour/QR tour codes, Eco-Screen, 1 kW PV panels, guest speakers, Cool Choices game, & "Pedal Power" from the KEEP library.

The school has integrated education about water across multiple grade levels:

Kindergarten: Rain & living things need water. Identify rain as a form of weather & learn that all living things need water. 1st: Energy cycles. Learn about the water cycle & that water is a finite source. 2nd: How water is used & conserved. Identify how kids use water, features of their school that consume water, perform water audits & learn about ways they can save water. 3rd: Lakes, ponds, rivers & streams. Learn that water is a finite resource, what a water shed is, & how much fresh water is available throughout the world, how to filter water, the birth/death of a water source, stages of a river, & stormwater. 4th: Using & conserving energy. Explore ways water is consumed & conserved, how Wisconsin policy is aimed at water

conservations, leaders who fought for water quality standards, & potable vs. nonpotable water. Resources used include: green roof, seeds/plants, rain barrel, bioswale, water filters, Project WET, activity guides, worksheets, water books, wheel, cycle bracelet, & test kits, DVDs, activity sheets, plumbing fixtures, kitchen equipment, water cooler/bottle filler, Eco-Screen, guest speaker, Cool Choices game, & field trips to the DNR Fish Hatchery & Outdoor Expo.

Waste reduction and recycling are part of the curriculum in some/all grades:

K: Introduce the four R's: Reduce/Reuse/Recycle/Rot. They will be able to identify the 4 "R's", sort items that would be trash and recycled, understand WM indoors and outdoors. They will collect garbage & sort into correct bins, create a poster of the 4 "R's", & complete the Trash/Recycling Sorting Sheet.

1st: Explain the 4 R's & give 1 example of each of the 4 R's & why recycling is important. Look at the building materials (recycled content), read book on 4 R's, & create a group project.

2nd: How materials are repurposed & identify materials that have been repurposed. They will create posters of repurposed materials & will have a Trash to Treasure competition.

3rd: Processes of the 4 R's. Identify the reducing, reusing, recycling, & rot process, go on a WM field trip & calculate plastic bottles diverted from the landfill as a result of using refillable water bottles from the counters on the water fountains & complete a group project on each process of the 4Rs (and present).

4th: Reduce the materials & energy they use, reuse materials & energy, repurpose materials, & understand the process of composting. They will perform a waste audit & create a composting program.

Staff have participated in the following professional development to ensure environmental and sustainability education:

- ✓ Attended the Midwest Renewable Energy Fair for professional development credit.
- ✓ Trainings offered through your local CESA
- ✓ KEEP (WI K-12 Energy Education Program)
- ✓ LEAF (WI K-12 Forestry Education Program)
- ✓ Project Learning Tree
- ✓ Project WET
- ✓ Project WILD
- ✓ WI Association for Environmental Education Event
- ✓ WI Center for Environmental Education Sustainability Course/Workshop/In-service
- ✓ Green Classroom Professional

Outdoor learning experiences offered to students at the school each year include:

K-4 EE curriculum focuses on the features of the site to provide hands-on learning engaging students.

Site's features include: K: Rain & living things need water. Rain as a form of weather & site helps to show that living things need water to survive. 1st: Energy cycles. The sun is needed for all life on Earth, teaching why sunlight is beneficial to human health & well-being, how food chains sustain life, & the life cycles of plants & animals. The schoolyard food chain walk, a "sun"wich outdoor activity & the observation of plants are all outdoor activities. 3rd: Lakes, ponds, rivers & streams. Bioswales can be used to explain how water can be naturally filtered, & how it can be used to manage stormwater. PV & solar thermal hot water system on the roof teach about renewable energy sources & technologies. Large outdoor educational signage explains these systems along w/ the geothermal system. 4th: Using & conserving water. Collecting rainwater demonstrates water quality & can be used to explain potable vs. nonpotable water. Off-site, outdoor field trips to the DNR Fish Hatchery & Outdoor Expo further help to educate students on the importance of natural ecology.

Additional ways the school integrates environmental and sustainability education:

LEED, The Lorax Project

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

Focus Area: Environmental & Sustainability Education

Technology: Our school believes that technology is an essential tool for our students to utilize in order to access 21st Century thinking and learning skills such as critical thinking, problem solving, collaboration, effective communication skills, accessing and analyzing information, and curiosity. Our school is equipped with a Smartboard in every classroom, we have four carts of Chromebooks, two labs of laptops, Computers for first grade, a Mac lab in the LMC, and several Nooks, Kindles, and Playaways for student check-out. Teachers utilize this various tools to help students reach their full potential in academic and 21st Century Skill areas.

Element 3C: Development and application of civic knowledge and skills

Focus Area: Community Involvement

The school has community involvement all of the focus areas (Energy, Water, School site, Recycling and waste management, Transportation, Environmental Health, Health and Wellness, Environmental and Sustainability Education)

Description of community partnerships/involvement:

Lake Mills Area School District has partnered with Miron Construction Co., Inc., EUA, SEG, and USGBC and The Center for Green Schools in addition to Wisconsin Associate of Environmental Education, KEEP and LEAF to green our school facilities and sites and integrate Environmental Education in our curriculum. LMASD also has partnered locally with Lake Mills Light & Water, Focus on Energy, WPPI, to bring another level of energy efficiency, renewable energy, incentives and education into the District.

Community involvement where students participate in civic/community engagement projects related to environmental and sustainability education:

The LMES students can accurately describe the major health, safety and environmental features in their home, school, community and region. The new Elementary School is designed to have a "watering hole" that allows students to be actively engaged in learning about Rock Lake, a major feature in the Lake Mills area. Additionally the media center has colors and shapes that reflect the Aztalan State Park, which allow the students be actively engaged in learning about the rich heritage of the Aztalan's and learn about the pyramids in the Aztalan State Park. A portion of the site has been restored with native and adaptive short prairie plants. There is exterior signage that point out the plantings and provide educational opportunities. The on-site bioswales enable the students to learn about biology, ecology and the environment. For detailed curriculum information, please see the other sections within this application.

Cross-cutting Questions

- LMES is recognized as a "Sugar Maple" School through Green & Healthy Schools Wisconsin and are a nationally certified PLT *GreenSchool!*.
- LMES is a member of:
 - Wisconsin Association for Environmental Education organizational member
 - Wisconsin Green Schools Network member
 - North American Association for Environmental Education
 - USGBC - Center for Green Schools Member