

Chisago Lakes Middle School  
Minnesota



## 2013-2014 School Nominee Presentation Form

### PART I - ELIGIBILITY CERTIFICATION

#### **School and District's Certifications**

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct 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 one or more of grades Pre-K-12. (Schools on the same campus with one principal, even a Pre-K-12 school, must apply as an entire school.)
  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 and sustainability 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.
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U.S. Department of Education Green Ribbon Schools 2013

Charter  Title I  Magnet  Private  Independent

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

Official School Name Chisago Lakes Middle School  
(As it should appear on an award)

School Mailing Address 3750 Lake Blvd  
(If address is P.O. Box, also include street address.)

Lindstrom City MN State 55045 Zip

County Chisago State School Code Number\* 2144

Telephone (651) 213-2400 Fax (651) 213-2057

Web site/URI ChisagoLakes.K12.MN.US E-mail JA@ChisagoLakes.K12.MN.US

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

Heidi Otte Date 1-24-14  
(Principal's Signature)

Name of Superintendent\* Mr. Joe Thimm  
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

Name of Director of Business Services - Heide Miller

District Name\* Chisago Lakes Area Schools Tel. (651) 213-2000  
ISO # 2144

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

Heide Miller Date 1-24-14  
(Superintendent's Signature)

Dir. of Business Svc.

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



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# GreenRibbonSchools



school meets the provisions above.

*Brenda Canfield* Date Jan 29, 2014  
(Nominating Authority's Signature)  
*Commissioner of Education*

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](mailto: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](mailto: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.

# Chisago Lakes Middle School

## Summary Narrative

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Roughly 40 miles north of the Twin Cities, our 78 year old building sits atop a hill overlooking two local area lakes. Chisago Lakes Middle School enrolls 800 students in grades 6-8 and is one of five school buildings within the Chisago Lakes Area School District. We are proud of our tradition of excellence in academics, fine arts, community education, and extracurricular activities. Over the past decade we have expanded this tradition of excellence to include programs, projects, and curriculum that focus on reducing our energy consumption and environmental impact. Our efforts have been rewarded with the honor of receiving the US EPA Tools for Schools Leadership Award in 2010 and the Xcel Energy Efficiency Partner Award in 2012. We are excited about the possibility of adding the prestigious Green Ribbon School Award to our list of accomplishments. The following summarizes our achievements in each of the ED-GRS Pillars and demonstrates why we believe we are an excellent candidate for the GRS Award.

Pillar I: The efforts below promote sustainable energy practices and focus on protecting our environment.

- Actively used the State of Minnesota B3 Benchmarking program since 2006.
- Established and implemented written operating guidelines relating to energy consumption as well as an energy awareness campaign to educate students and staff on the prudent use of energy, management of increasing energy-related costs and the reduction of energy-related carbon dioxide emissions since 2008.
- Partnership with ASBO International's Green Schools Advisory Group.
- Featured in an ASBO International/EPA webinar on energy efficiency
- Energy efficiency improvements have earned us an EPA Energy Star rating of 89.
- 20% reduction in Greenhouse Gas emissions
- 25% reduction in energy usage over the past five years.
- 1% of our energy is obtained from an on-site 10 kW Photovoltaic Solar System and another 20% of renewable energy is purchased from Xcel Energy.
- Pilot school for the State of Minnesota Public Building Enhanced Energy Efficiency Program.
- 10% reduction in domestic water usage over the last six years.
- Two on-site rain gardens capture, treat, and infiltrate the first inch of rainfall before it enters the storm sewer and is directed into our nearby lakes.
- 90% of our cafeteria generated food waste is diverted from landfills.
- Plastic, aluminum, paper, and cardboard are recycled through a student managed recycling program.
- 100% of cafeteria trays and flatware are washable and reusable.
- 100% of our paper is fiber from certified forests and is elemental chlorine free.
- Hazardous waste has been significantly reduced.
- "Mercury Free" for the last 9 years, as labeled by MPCA.
- An additional 30 KW Photovoltaic Solar System will installed Spring of 2014.

Pillar II: As demonstrated below, we strive to improve the health, safety and well-being of students and staff.

- Written Indoor Air Quality Management Plan contains our vision and goals, building assessments, procedures for managing complaints, and plans for training and communication.
- Written policies and plans are in place to, manage animals and plants, guide floor covering and upholstered furniture purchases, minimize student exposure to school bus exhaust fumes and scented personal products, and control and manage pests in and around our building.
- Current MSDS management program and chemical inventories.
- Operation of an environmentally friendly cleaning program.
- Building improvements were completed to improve the sustainability and health of our building.
- Dehumidification HVAC system controls humidity and deters mold growth.
- Staff are trained and encouraged to identify health and safety issues. Reports are investigated immediately.
- Annual IAQ walkthrough, EPA TFS Checklists, Mock OSHA Inspection, insurance company inspection, and job hazard analysis. Three year State Fire Marshal inspection, lead water testing and asbestos testing. Five year radon testing and self-conducted, semi-annual inspections to help identify environmental health and safety issues.
- Cafeteria menu meets new federal nutrition standards.
- Participation in a Farm to School program.
- Students receive 53 minutes of physical education every other day. 50% of this time, weather permitting, takes place outdoors.

Pillar III: The classroom extends beyond the walls of Chisago Lakes Middle School.

- Environmental and sustainability concepts are embedded in curriculums.
- 10Kw photovoltaic solar system is a teaching tool that students see every day as they enter the building. Energy savings data from this system are displayed on our website. CERT's video is available for viewing at <http://www.cleanenergyresourceteams.org/blog/project-independence-solar-pv-system-chisago-lakes-middle-school-reflecting-first-2-years>
- Environmental learning extends beyond the classroom as 6<sup>th</sup> graders travel to Wolf Ridge Environmental Learning Center to extend their knowledge of the environment.
- Service learning projects challenge students to find ways to support others in need and help change the world for the better. Students have raised money to, build a well and restrooms in an African village as part of H2O for Africa, purchase our existing 10 kW solar system, and build an outdoor classroom space. Students have also helped install rain gardens on multiple school sites and have planted trees around our community.

## **Chisago Lakes Middle School, Summary of Evaluations**

Minnesota received three applications for the GRS School Awards and evaluated them using the USED GRS rubric. A team of three reviewers evaluated and scored all three applications individually and then held an in-person meeting to determine the team scores and recommendations. Chisago Lakes received a composite score of 67 and the other school applications received scores of 82 and 53.



Program(s) and level(s) achieved: **MPCA GreenCorps Waste Reduction & Recycling Program, MN B3 Benchmarking Program**

Has your school, staff or student body received any awards for facilities, health or environment? Yes  No

Award(s) and year(s): **EPA Tools for Schools IAQ Leadership Award in 2010. Xcel Energy Efficiency Partner in 2012. Recipient of the 2013 MASMS Sustainable Grant.**

## Pillar I: Reduced Environmental Impact and Costs

### 1A Energy (please note that preference will be given to schools that have used the [State of Minnesota B3 Benchmarking](#))

1. Can your school demonstrate a reduction in Greenhouse Gas emissions? Yes  No

Percentage reduction: **20.13%** Over (mm/yyyy - mm/yyyy): **01/2008 – 10/2013**

Initial GHG emissions rate (MT eCO<sub>2</sub>/person): **1164.53 Total CO<sub>2</sub> Metric Tons / 1.32 per occupant**

Final GHG emissions rate (MT eCO<sub>2</sub>/person): **722.31 Total CO<sub>2</sub> Metric Tons / .82 per occupant**

Offsets: **442.22 Total CO<sub>2</sub> Metric Tons** How did you calculate the reduction? **B3 Benchmarking**

Does your school have an Energy Master Plan? Yes  No

If yes describe the areas it covers:

**Indoor environmental condition guidelines (temp set points), hood and exhaust fan operational guidelines, indoor lighting purchase and operational guidelines, Xcel Energy Peak Control Program, convenience/personal appliance use guidelines, office equipment purchase and operational guidelines, window covering guidelines, and space scheduling guidelines.**

2. Do you track resource use in EPA ENERGY STAR Portfolio Manager? Yes  No

If yes, what is your score? **89 (B3)** If score is above a 75, have you applied for and received ENERGY STAR certification? Yes No  Year:

Has your school reduced its total non-transportation energy use from an initial baseline? Yes  No

Current energy usage (kBTU/student/year):

**7,675,100 Total kBtu. 9,789 kBtu per student in 2012 (800 students). Projected 2013 energy usage is 5% less than 2012.**

Current energy usage (kBTU/sq. ft. /year): **55.26 kBtu/SF in 2012**

Percentage reduction: **25.61%** Over (mm/yyyy - mm/yyyy): **01/2008 – 10/2013**

How did you document this reduction? **B3 Benchmarking**

4. What percentage of your school's energy is obtained from:

On-site renewable energy generation: **1%** Type: **10Kw Photovoltaic Solar System (an additional 30Kw system will be installed spring of 2014)**

Purchased renewable energy: **20%** Type: **Xcel Energy**

Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy program:

**We were a pilot school for the State of Minnesota Public Buildings Enhanced Energy Efficiency Program (PBEEEP)**

5. In what year was your school originally constructed? **Original construction was 1935. There were building additions in 1959, 1968, 1974, 1983, and 1999.**

What is the total building area of your school? **138,887 Square Feet**

6. Has your school constructed or renovated building(s) in the past ten years? Yes  No

## 1B Water and Grounds

7. Can you demonstrate a reduction in your school's total water consumption from an initial baseline? **Yes**

Average Baseline water use (gallons per occupant):

**865,300 total gallons in 2007. 983 gallons per occupant in 2007.**

Current water use (gallons per occupant):

**779,000 total gallons in 2011. 885 gallons per occupant in 2011**

Percentage reduction in domestic water use: **9.89%**

Percentage reduction in irrigation water use: **0%**

Time period measured (mm/yyyy - mm/yyyy): **01/2007 – 12/2011**

How did you document this reduction (e.g. ENERGY STAR Portfolio Manager, utility bills, school district reports)? **B3 Benchmarking**

8. What measures are you taking to reduce water consumption, such as controlling leaks and water-efficient devices? **Staff and Student behavior modification through education and training. Routine inspections. Low flow water consumption devices. Upgraded water heater equipment. Water softener system.**

9. What percentage of your landscaping is considered water-efficient and/or regionally appropriate? **100%**

Types of plants used and location:

**Marsh Milkweed, Butterfly Weed, Boneset, Joe Pye Weed, Prairie Smoke, Alum Root, Blue Flag Iris, Blazing Star, Cardinal Flower, Great Blue Lobelia, Sweet Black Eyed Susan, Side Oats Grama, Bricknell's Sedge, Switchgrass, Little Bluestem, Serviceberry, Black Chokeberry, Dwarf Bush Honeysuckle, and Herbaceous Perennials. Two rain gardens are located on the east and west side of the building. Small entry gardens are located at various locations south, east, and west of the building.**

10. Describe alternate water sources used for irrigation. (50 words max) **Our schools rain gardens and new outdoor classroom are irrigated with roof and parking lot water runoff.**

11. Describe any efforts to reduce stormwater runoff and/or reduce impermeable surfaces. (50 words max) **No new parking areas have been created in the past 13 years.**

12. Our school's drinking water comes from: (place an "x" after your choice)

**Municipal water source: X**

How often is the school's drinking water tested for possible contaminants? (50 words max)

**The City of Lindstrom tests the total Coliform monthly and fluoride daily. The district conducts Lead in Water sampling/testing (every 3 yrs) as provided for under MDH and US EPA rules and guidelines.**

13. Describe how the water source is protected from potential contaminants. (50 words max)

**The City of Lindstrom's wells are located inside secure buildings. The City also has a Source Water Protection Plan in place. Our school has several RPZ's (backflow preventers) located throughout our building. Drinking fountains are cleaned and sanitized daily.**

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

**The following responsibilities are outlined in our districts written Lead in Water Management Plan. - Conduct water sampling/testing (every 3 yrs) as provided for under MDH and US EPA rules and guidelines. - Maintain compliance documentation. - Review regulatory standards, reporting requirements and new developments. - Train employees.**

15. Describe how the school grounds are devoted to ecologically beneficial uses. (50 word max)

**In 2011, two rain gardens were installed to capture, treat, and infiltrate rainfall before it enters the lake.**

**In 2013, we transformed an unused portion of our grounds into an Outdoor Classroom.**

**In 2013, a portion of the Swedish Immigrant Walking Path was completed on our campus.**

### **1C Waste**

16. What percentage of solid waste is diverted from landfilling or incinerating due to reduction, recycling and/or organics diversion (food to people, food to hogs and/or composting)? Note that Minnesota Statutes, section 115A.151 requires that schools must recycle a minimum of three material types. Complete all the calculations below to receive points.

A - Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected): **115**

B - Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected): **45**

C - Monthly organics diversion (food to people, food to hogs and/or composting) volume(s) in cubic yards (leftover food collection bin/food scrap and/or soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected): **4.6**

Recycling and Diversion Rate =  $((B + C) \div (A + B + C) \times 100)$ : **30.1**

Monthly waste generated per person =  $(A/\text{number of students and staff})$ : **.13**

17. What percentage of your school's total office/classroom paper content by cost is post-consumer material or fiber from forests certified as responsibly managed by the Forest Stewardship Council (If a product is only 30% recycled content, only 30% of the cost should be counted)? **100% of paper is fiber from certified forests.**

18. List the types and amounts of hazardous waste generated at your school. (Note that Minnesota Statutes, section 121A.33 bans mercury in Minnesota schools.)

Flammable Liquids: **0**

Corrosive liquids:**0**Toxics:**0**

Mercury:**Over the past 4 years we have recycled an average of 3,500 4' fluorescent lamps.**

How is this measured?

**The material is measured by our district's Chemical Hygiene Officer and Director of Buildings & Grounds prior to disposal with Veolia Environmental Inc. and Green Lights Recycling.**

How is hazardous waste disposal tracked?

**The waste is tracked by the Chemical Hygiene Officer and Director of Buildings & Grounds as to quantity and nature of the materials being disposed of. Veolia Environmental and Green Lights Recycling is our disposal contractors.**

19. Describe other measures taken to reduce solid waste and hazardous waste, use recycled materials, and properly dispose of hazardous materials. Include electronic devices. (100 word max)

**Micro scale lab protocols in science classes, eliminating over-ordering, constantly reviewing chemical inventories, not accepting "donations" of chemicals and written policies to guide teachers in wise stewardship of instructional chemicals. We have also eliminated VOC solvents and finishes in the wood shops, heavy metal glazes in the art departments, and reduced our cleaning chemical inventory while switching to many water based products. We have been labeled "Mercury Free" by the MPCA. Solid waste has been reduced by our food recycling program and paper/aluminum/plastic recycling programs. There is heavy student involvement in most of these programs.**

20. Which green cleaning custodial service standard is used (i.e., Green Seal Standard for Commercial and Institutional Cleaning Services (GS-42), the ISSA Cleaning Industry Management Standard – Green Building)?

**Combination of all mentioned standards. Product standards include Green Seal, Ecologo, and Green By Design.**

What percentage of all products is third-party certified?**20% of chemicals and 80% of paper products.**

### **1D Alternative Transportation**

21. What percentage of your students walk, bike, bus, or carpool (2 or more students in the car) to/from school? (Note if your school does not use school buses.) **15%**

How is this data calculated? (50 word max)

**Percentage fluctuates from month to month. We estimate the average by conducting hard counts at the school and reviewing our bus load counts.**

22. Has your school implemented any of the following? (place an "x" after all that apply)

Designated carpool parking stalls:

A well-publicized no idling policy that applies to all vehicles (including school buses):**X**

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

Safe Pedestrian Routes to school or Safe Routes to School:**X**

Describe activities in your safe routes program and other events to encourage students to walk, bike or carpool, including number of participants. (50 word max)

**We have not established a program as of yet. In 2012 and 2013 the district worked with MNDOT and the City of Lindstrom to construct a safe walking path to our building as well as relocate crosswalks to safer locations.**

23. Describe how your school transportation use is efficient and has reduced its environmental impact.(50 word max)**Continuously reviewing bus routes and maintaining our bus fleet has reduced the environmental impact by ensuring there are minimal unnecessary miles driven by our efficient running buses.**

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

### **2A Environmental Health**

Describe your school's Integrated Pest Management efforts, including IPM/green certifications earned, routine inspections, pest identification, monitoring, record-keeping, etc.:

**Communication and staff education are the foundation of our IPM program. Routine annual trainings are conducted and various reminders and tips are sent out throughout the school year. The district conducts multiple building walkthroughs/inspections and updates/reviews the IPM written management plan each year. All pesticide applications are done by our reputable contracted vendor. Community and building occupants are notified prior to any application. Pest identification, monitoring, and recordkeeping are the responsibilities of building maintenance staff, district administration, and our contracted vendor.**

1. What is the volume of your annual pesticide use (gallons/student/year)?

**2 gallons used per year/800 students = .0025 per student**

Describe your efforts to reduce use:

**Our districts food waste recycling program has eliminated this waste from our dumpster area, which has drastically reduced the amount of pests attracted to this area. A building envelope sealing project has sealed up the cracks and gaps around our building that were previously pest entrance points. School staff is trained annually that any classroom food must be stored in air tight containers. We also operate an efficient environmentally friendly cleaning program to control pests.**

2. Which of the following practices does your school employ to minimize use of and exposure to pesticides? Place an "x" after all that apply and provide specific examples of actions taken.

Our school has an integrated pest management plan in place to reduce and/or eliminate pesticides and pest control policies, methods of application, and posting requirements are provided to parents and school employees in accordance with the Janet B. Johnson Parents' Right-to-Know Act (Minn. Stat. § 121A.30): **X**

**Districts IPM plan and annual letter to parents is available for viewing on our district website. Our written IPM plan was originally created in 2001 and is updated annually.**

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

**Our district uses an online MSDS management program that is available for viewing on our district website.**

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

**Spraying is scheduled during breaks to avoid student occupancy times.**

3. Which of the following practices does your school employ to minimize exposure to hazardous contaminants? Place an "x" after all that apply and provide specific examples of actions taken.

Our school has a comprehensive indoor air quality management program that is consistent with Minnesota Department of Health best practices which are based on EPA's IAQ Tools for Schools:  
**X – Our districts IAQ plan is available for viewing on our district website. Our district earned an US EPA Leadership Award in 2010. At minimum walkthroughs and trainings are conducted annually. Our district has a strong IAQ Concern reporting system in place. All reported concerns are investigated within 72 hours. Corrective measures are scheduled immediately if needed.**

Our school prohibits smoking on campus and in public school buses:**X**

**Our district's buildings and grounds are tobacco free zones.**

Our school is in compliance with Minnesota Statutes, section 121A.33 and has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school. (This does not apply for fluorescent bulbs, mercury thermostats, switches and gauges for HVAC systems.):**X**

**Our school has pledged to be mercury free and has been labeled mercury free for the past 10 years by the MPCA.**

Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO):**X**

**Periodic CO testing and frequent appliance maintenance has helped us reduce and manage this hazard.**

Our school does not have any fuel burning combustion appliances:

Our school has sampled frequently occupied rooms in the last five years at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L:

**X – District wide testing is conducted every 5 years. Last year we deployed approximately 175 radon monitors throughout the district. Any issues that are discovered are corrected immediately and the area is retested.**

Our school has identified and properly manages or has removed, where applicable, asbestos-containing materials, according to U.S. EPA AHERA regulations and, where applicable, the Minnesota Department of Health asbestos abatement rules:**X**

**Our district is very proactive in the management and removal of asbestos containing materials. Planned abatement projects are an annual event and we soon hope to be completely asbestos free.**

Our school has identified and properly removed sources of lead according to the U.S. EPA's Renovation, Remodeling and Painting Rule where lead containing paint may be disturbed in areas used by children under the age of six:**X Lead testing is conducted every three years. We have tested several areas but have not had the need for a removal project.**

Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure:**X No playgrounds at this location. Our districts only wood playground was removed three years ago.**

4. Describe how your school controls and manages chemicals routinely used in the school to minimize student and staff exposure. (100 word max)

**We have eliminated all VOC solvents and finish in the wood shops, all heavy metal glazes and dry clay in the art departments, and significantly reduced our cleaning chemical inventory while switching to low/no VOC emitting products and many water based products. We also inspect every room twice a year to ensure that cleaning chemicals are kept out of the reach of students and household chemicals are kept at home.**

5. Describe actions your school takes to prevent exposure to asthma triggers in and around the school. (100 word max)

We operate an efficient environmentally friendly cleaning program to control dust and pests. We have implemented district policies to reduce/eliminate animals, plants, upholstered furniture, and fragrances in classrooms. Our No Idling Policy helps minimize outdoor exhaust fumes. Our dehumidification HVAC system helps control our building humidity and deters mold growth in our building. Annual IAQ walkthroughs and staff IAQ concern reporting system helps us identify issues quickly.

6. Describe actions your school has taken to have your school bus fleet retrofitted with cleaner burning engines or to acquire cleaner burning buses or fuel.

**Our district contracts for transportation with Hunt's Transportation. Hunt's Transportation currently has a fleet of 29 buses of which 6 have DEF injection systems. All of the 29 buses meet or exceed emission standards. Hunt's also employ's an in-house mechanic to maintain the fleet.**

7. If your school owns or operates an indoor ice arena, describe your compliance with state laws regarding certification, routine testing and other steps you have taken to maintain acceptable air quality. **Our district does not operate an ice arena.**

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

**In 2002 and 2005 the district installed new HVAC dehumidification systems to control humidity levels and deter mold growth within our building. 71% of our buildings roofs are modified built-up roofs with a 30 yr warranty that were installed within the past 5 years. Building tuckpointing and exterior envelope gap sealing projects were completed within the past 5 years. We continually educate and empower our staff to identify potential IAQ issues. All reports are investigated immediately and remediation follows in a timely manner. Building walkthroughs and inspections also occur multiple times a year.**

9. Our school has working local exhaust systems for major airborne contaminant sources.  Yes  No

**The majority of our exhaust systems are controlled and monitored through our building automation system. Exhaust systems are physically inspected at least once per year to ensure they are in top working order. Face velocity**

**testing on our fume hoods occur every six months. Critical exhaust systems, such as in our Science Chemical Storeroom, have ribbons attached to the vents so that persons entering the room can immediately tell if the system is operating.**

10. Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards (Minnesota State Mechanical Code/American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) guideline or 15 cubic feet per minute (cfm) of fresh air per occupant). Describe your school's practices for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly. (100 word max)

**Building automation was upgraded last year to provide us with more efficient and accurate control. Building HVAC equipment is monitored daily to ensure optimal operation that meets all codes and standards. We were also a pilot building for the new State run Public Buildings Enhanced Energy Efficiency Program (PBEEEP) which was a 6+ month technical investigation of our buildings operation. Our in-house maintenance staff handles routine repairs and preventative maintenance such as unit inspections, grease and oil service, and filters and belt replacements. Periodic CO2 sampling and IAQ walkthroughs also help us ensure proper air flow within our building.**

11. Describe steps your school takes to protect indoor environmental quality, such as access to daylight, lighting quality, views to nature, acoustics, thermal comfort, etc. (200 word max)

**Staff is surveyed annually using the EPA Tools for Schools IAQ Ventilation Checklist. Results are then reviewed and areas of concern are investigated. Staff is empowered to report IAQ issues, such as acoustic issues and thermal comfort. Concerns are investigated in a timely fashion with continuous staff communication throughout the process. Annual IAQ walkthroughs are conducted as well as two additional wall to wall building inspections during the school year. Our districts proactive approach to maintenance helps ensure our buildings are healthy, safe, and operating efficiently. Staff is educated on IAQ related topics through trainings and monthly tips sent via email. All classroom and hallway lighting has been retrofitted with T8 28 watt 5000 Kelvin temp fluorescent lamps. These lamps provide a natural daylight color and have been shown to make reading easier, keep students alert, and reduce eye strain. Thermal comfort is managed with a recently updated BAS. Our building is centered between two lakes that can be viewed from 90% of our classrooms.**

12. Describe any other actions your school takes to do periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action. (200 word max)

Annual IAQ walkthrough, annual Mock OSHA Inspection, annual insurance company inspection, 3 year State Fire Marshal inspection, annual job hazard analysis, 5 yr radon testing, 3 yr lead in water testing, 6 mo/1 yr/3 yr asbestos inspections, and our

own semiannual in-house wall to wall inspections help us identify environmental health and safety issues. Reports are generated after each of these inspections. Corrective action is taken and documented immediately following the identification of issues.

## 2B Nutrition and Fitness

13. Which practices does your school employ to promote nutrition, physical activity and overall school health? Place an "x" after all that apply and provide specific examples of actions taken, focusing on innovative or unique practices and partnerships. (100 word max each)

Our school participates in the USDA's HealthierUS School Challenge. **X**

Level and year: **We are currently working on making the necessary changes to apply for the Healthier US Schools Challenge at our building.**

Our school participates in a Farm to School program to use local, fresh food:**XYes, we do participate in a Farm to School program and use local fresh food from several sources.**

Our school has a fruit, vegetable and greens salad bar:**XWe offer daily a wide variety of fresh fruits and vegetables on our serving lines. A greens salad bar is a new offering to our students and staff.**

Our school has an on-site food garden:**X**

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

**Last year our High School Agricultural Department was able to begin construction on several raised bed vegetable gardens that will supply fresh produce to our schools lunch program. This is also our goal with the new Middle School gardens.**

Food purchased by our school is certified as "environmentally preferable" (USDA certified organic, Fair Trade, Food Alliance or Rainforest Alliance):**XPercentage:Approximately 6%Type:Organic**

Our students spent at least 120 minutes per week over the past year in school supervised physical education:**XStudents at Chisago Lakes Middle School receive 53 minutes of physical education activity/instruction every other day all year.**

At least 50% of our students' annual physical education takes place outdoors:**X**

**Weather permitting our students participate in physical class outdoors at least 50%. Our students participate in football, soccer, lacrosse, capture the flag and fitness testing (mile run), softball, and kickball units.**

Health measures are integrated into assessments:**X**

**Student's level of personal fitness is measured twice a year by using the Presidential Physical Fitness test. Student fitness and improvement in personal fitness is measured by their performance in five activities (sit-n-reach, pull-ups, sit-ups, shuttle run and mile run). Students write and**

**develop personal goals based on individual performance. To earn the Presidential Physical Fitness Award students must score at or above the 85th percentile on all five activities, to earn the National Physical Fitness Award students must score above the 50th percentile on all five activities and to earn the Physical Fitness Award students must participate in all five activities.**

14. Describe the type of outdoor education, exercise and recreation available, including features such as trails, natural playgrounds, gardens, habitat projects and outdoor classrooms and the average number of minutes your students are outside each week. (100 word max)

**During physical education class, students participate in football, soccer, lacrosse, capture the flag, fitness testing, softball, and kickball units. 366 students participate in MN State High School League activities each year. Students partnered with our community to raise money to construct an outdoor classroom next to our student maintained garden. Research states that getting outside can help students to relax, regain focus, engage students, and enhance learning. As a result of Minnesota climate, students spend an estimated average of 30 minutes outside each week at school. This average will increase this year with the completion of our outdoor classroom.**

15. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships. (100 word max)

**Our food service department has changed our menus to meet the new federal nutrition standards for school meals. These standards ensure that meals are healthy and well-balanced and provide students all the nutrition they need to succeed at school. Our meals offer students milk, fruits and vegetables, proteins and grains, while meeting the strict limits on saturated fat, trans fat and portion size. In addition, our physical education department has added units on archery, cardio kickboxing, yoga, and Pilates to increase participation in class and expose students to other forms of physical activity.**

### **Pillar 3: Effective Environmental and Sustainability Education**

1. Which practices does your school employ to help ensure effective environmental and sustainability education? Place an "x" after all that apply and provide specific examples of actions taken, highlighting innovative or unique practices and partnerships.

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

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

**At Chisago Lakes Middle school, students are exposed to environmental and sustainability concepts in many of their different classes, including language arts, science, social studies, math, and art. For example, students study the types of landforms and natural resources in social studies and then expand on that in their science classes by analyzing ways in which students can sustain our resources and protect the environment. Language arts classes also incorporate readings about sustainability and environmental protection. These lessons are designed cross-curricular across the grade levels and progress as students advance in their education.**

Environmental and sustainability concepts are integrated into assessments. (200 word max):X  
**Teachers collaborate in professional learning communities to design and implement common assessments. This would include the environmental and sustainability concepts.**

Students evidence high levels of proficiency in these assessments. (100 word max):X  
**Teachers analyze student data on standards and learning on their common assessments; this also includes the environmental and sustainability concepts. Right now teachers have been designing the assessments and have yet to implement and analyze the data specific to sustainability. This should be implemented by the spring of this school year.**

Professional development in environmental and sustainability education is provided to all teachers. (200 word max):X

**On the majority of our staff development days, teachers work in departments or grade levels on the state standards. Teachers collaborate on the assessments and instructional activities that can reach those standards. This process includes environmental and sustainability education.**

2. For schools serving grades 9-12, provide: **NA**
3. How does your school use sustainability and the environment as a context for learning across all academic disciplines; and in particular, in science, technology, engineering and mathematics thinking skills and content knowledge? And how are your green school efforts integrated into that learning? (200 word max)

**Our school districts science curriculum is centered around “scientific inquiry.” Students in grades 6-8 are taught how to develop and use their critical thinking skills to “think like scientists”. The steps in our scientific inquiry model are: Observe, Ask Questions, Think of a Hypothesis, Experiment, Draw Conclusions, and finally, Decide if your Hypothesis is supported or not supported with the findings. Using this model, students spend a great deal of time discussing, observing and investigating resources in our environment – renewable vs. nonrenewable. In addition, over 500 students participate in a Project Lead the Way (PLTW) course. This is a rigorous and innovative Science, Technology, Engineering and Mathematics (STEM) project based course, designed to challenge and engage the natural curiosity and imagination of middle school students. Students create, design, build, discover, collaborate and solve problems through hands on experiences. Students study mechanical and computer control systems, test their ideas on modeling software, explore the importance of energy, including ways to reduce, conserve and produce solar, thermal and wind power. We are inspiring students to try new things, making students aware of the resources that surround them and creating leaders, through engaging curriculum and dynamic staff!**

4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways? (200 word max)  
**Our 10 KW photovoltaic solar panel system mounted on the roof of our school building is a shining example of sustainability. Students see and are reminded daily of the solar panel display when entering the building. They can visit our webpage to see how much power the panels are producing and how much carbon they are offsetting. This coming spring an additional 30 KW system will be installed. 8<sup>th</sup> grade students are presented and participate in an alternative energies unit in their science classes. This unit allows them to explore alternative energy options**

as well as employment opportunities which grow more diverse every year. Students and staff have worked collectively to construct ten raised bed gardens within our outdoor classroom space. The garden and outdoor classroom space are also great examples of sustainability, they help to improve the local landscapes, teach students the importance of horticulture in a growing and changing world and help to purchase new rootstock and offset the cost of green technology. Students, staff and community volunteers have worked collaboratively to raise and sell over 500 trees and other perennials.

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

**In collaboration with H2O for Life, Chisago Lakes Middle School (CLMS) staff, students and community members raised over \$14,000 during the 2007-2008 school year. The funds raised through this service-learning project made it possible to provide a well for clean water, restrooms and hygiene education for a small village in Mozambique. During the 2009-10 school year, students once again came together to inspire each other and their community and raised over \$16,000 to install forty-four solar panels on the roof of CLMS. These panels save our school approximately \$1,500 per year. Through service learning projects students at CLMS are challenged to find ways to support those in need, inspire each other and take action to help change the world for the better. Please visit**

**<http://www.cleanenergyresourceteams.org/blog/project-independence-solar-pv-system-chisago-lakes-middle-school-reflecting-first-2-years> to learn more.**

6. Describe students' meaningful outdoor learning experiences at every grade level. (200 word max)  
**An outdoor classroom space was constructed during the 2012- 2013 school year with funds raised by CLMS students, staff and community members. This space provides opportunities for all CLMS students to gain knowledge and obtain skills in a natural environment, while developing an understanding, appreciation and respect for the environment.**

**Every winter 6th grade students and their parents venture to Wolf Ridge Environmental Learning Center in Finland, Minnesota. Wolf Ridge opens minds to the joy and wonder of the discovery of our natural world, new friendships are made and leaders are born. Staff at Wolf Ridge seek to stimulate a love and understanding of nature by involving students, parents and staff in direct observation of and participation in outdoor activities that teach, engage and promote self-awareness.**

**Every spring 6th grade students embark on a day long adventure at Wild River State Park with the focus of prairie restoration. More than 18 million acres of prairie covered Minnesota, today, less than 1% of Minnesota's native prairie remains. The near elimination of native prairie has inspired the efforts of students and staff to protect, restore and enhance the prairies at Wild River State Park.**

7. Describe your partnerships (e.g. business, community, informal education, colleges) to help your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships. (Maximum 200 words)

Chisago Lakes Middle School students have raised money and partnered with their families and community to: provide a clean source of water in Mozambique, install a 10KW photovoltaic solar panel system on our school roof, create and plant rain gardens, plant trees at or county library, clean up our local parks, restore natural prairies, adopt a section of a local highway (Adopt-a-Highway project), plan K-12 Arbor Day activities and construct an outdoor classroom space. State, Federal and local grants were written and obtained to help offset the cost of the solar panel project as well as to afford us the opportunity to create and plant the rain gardens and restore natural prairies at Wild River State Park. Students raised money through building wide fundraisers such as: magazine sales, cookie dough sales, turkey bowling, bingo, lightening jamborees, hat days, 5k run/walks, school dances, etc. The experiences above have taught our students far more than any textbook could. Students have seen the value, importance and power of teamwork, and have learned that no matter how small the team, you can still make a difference and have an impact on your surroundings.

8. Describe any other ways that your school integrates core environment, sustainability, STEM, green technology and civics into curricula to provide effective environmental and sustainability education, highlighting innovative or unique practices and partnerships. This can also include before and after school, during the summer and other enrichment opportunities. Examples include childcare programs, community education courses, parent education courses, and student green teams, environmental or outdoor clubs. (Maximum 200 words)

At CLMS 7th grade students take a Physical Science Course. Every fall as part of this course, students are required to compile/construct a Nature Notebook that immerses them in the outdoors for approximately twelve weeks. The notebook must contain labs, essays, tests, plant/leaf presses, etc. that reflect what they have learned about the nature and the environment.

All students at CLMS participate in our Food Recycling Program. Students are taught how to sort food waste for a local pig farm, educated about landfills and taught about general recycling, through videos, hands-on-activities and modeling. Staff work daily with students on taking the appropriate portions of food to help cut down on food waste in general.

Over 500 students participate in a Project Lead the Way (PLTW) course. This is a rigorous and innovative Science, Technology, Engineering and Mathematics (STEM) project based course, designed to challenge and engage the natural curiosity and imagination of middle school students. Students create, design, build, discover, collaborate and solve problems through hands on experiences. Students study mechanical and computer control systems, test their ideas on modeling software, explore the importance of energy, including ways to reduce, conserve and produce solar, thermal and wind power.