

PART I - ELIGIBILITY CERTIFICATION

School and District's Certifications

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

1. The school has some configuration that includes one or more of grades K-12. (Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.)
2. The school achieves or comes close to achieving the goals of all three green Ribbon Pillars: 1) environmental impact and energy efficiency; 2) healthy school environments; and 3) environmental and sustainability education.
3. The school has been evaluated and selected from among schools within the state or Nominating Authority's jurisdiction (BIE, DoDEA), based on *documented achievement* toward the three Green School Pillars and Elements.
4. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
5. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
6. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
7. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
8. The school meets all applicable federal, state, tribal and local health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

U.S. Department of Education
Green Ribbon Schools 2012

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

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

Official School Name Garlough Environmental Magnet School
(As it should appear in the official records)

School
Mailing Address 1740 Charlton St
(If address is P.O. Box, also include street address.)

West St Paul MN 55118
City State Zip

County Dakota State School Code Number* 0817

Telephone (651) 403-8100 Fax (651) 403-8110

Web site/URL garlough.isd197.org E-mail Christopher.hiti@isd197.org

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

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

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

District Name* Independent School District 197 Tel. (651) 403-7001

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

 Date 3-16-12
(Superintendent's Signature)

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

PART II – SUMMARY OF ACHIEVEMENTS

Instructions to School Principal

Provide a concise and coherent "snapshot" that describes how your school is representative of your state's highest achieving green school efforts in approximately 600-800 words. Summarize your strengths and accomplishments. Focus on what makes your school worthy of the title U.S. Department of Education Green Ribbon School. Be sure to note if students were actively involved in preparing the application.

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

PART III – DOCUMENTATION OF STATE EVALUATION OF NOMINEE

Instructions to Nominating Authority

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

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

Nominating Authority's Certifications

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

1. The school has some configuration that includes one or more of grades K-12. (Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.)
2. The school achieves or is one of those overseen by the Nominating Authority which comes the closest to achieving the goals of all three green Ribbon Pillars:
 - 1) environmental impact and energy efficiency; 2) healthy school environments; and
 - 3) environmental and sustainability education.
3. The Nominating Authority has evaluated the school and selected it for submission to the U.S. Department of Education from among those schools overseen by the Nominating Authority which have applied for a Green Ribbon, based on *documented achievement*

toward the three Green School Pillars and Elements.

4. The school meets all applicable federal civil rights and federal, state, tribal and local health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency Minnesota Department of Education

Name of Nominating Authority Dr. Brenda Cassellius
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

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

Brenda Cassellius Date March 21, 2012
(Nominating Authority's Signature)

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

Public Burden Statement

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

PART II – SUMMARY OF ACHIEVEMENTS

Garlough Environmental Magnet School (GEMS) is a leader in the green/environmental school movement. We've been identified on the local, state, national and international stage as a leader and innovator in environmental education. Educators and policy makers have flocked to visit Garlough from all over the Midwest, Washington D.C, New Mexico, Norway and Japan. GEMS has been named a National Magnet School of Excellence for 2009, 2010, 2011, and was named the number one new and emerging magnet school in the country for 2009 and 2010. In 2011 Garlough was named Minnesota Magnet School of Merit. Garlough has received over 25 grants ranging from \$500 - \$100,000 from numerous organizations to further our green initiatives for children's education in environmental and sustainability literacy. Clearly, GEMS is a great investment for grantors due to our success and ability to implement our vision.

Pillar I

Garlough has received several energy awards; Xcel Energy Efficiency Partner 2009, EPACT Certification 2010 Energy Star 2009, Energy Star Leader 2005, 2009, 2010, Energy Star Top Performer 2009, 2010.

Garlough has reduced greenhouse gas emissions by 40% and energy use by 22% from 2007-2011. Besides behavioral changes, we utilize indoor temperature standards, and building automation system for heating, cooling and lighting for occupied and unoccupied building schedules.

Water consumption has decreased by 26% for both irrigation and domestic use. Landscaping is 100% regionally appropriate. The district has performed lead in water sampling, and retesting is scheduled for this year. During 2005 renovation we installed lead free fixtures, motion sensors to control water usage on toilets, urinals and sinks.

More than 64% of solid waste is diverted from landfills. This is the fifth year we have composted lunch waste. We partnered with Dakota County and have recycle bins in every classroom, office and hallway. Classrooms have organic worm bins as teaching tools. Clear labeling is on all containers. Students collect shoes for GreenSneakers, in the IT department, e-waste is recycled by Asset Recovery a R2 certified recycler.

Our paper comes from mills that are SFI Certified Sourcing and processed chlorine-free (PCF). Cleaning products are "third party certified" green cleaners. Electronic purchases are EPEAT certified.

Garlough has a no-idling policy that applies to all vehicles, participates

in "Safe Routes to School" and partnered with Project Green Fleet, an initiative to reduce diesel emissions. We also promote carpools and have "walk from school" days on Fridays as well as walk to Dodge Nature Center for all field trips.

School wide LIVEGREEN club promotes energy conservation and recycling through behavior changes with guidance of a dedicated teacher.

Pillar II

Our integrated school environmental health program includes integrated pest management, contamination controls and ventilation, indoor air quality, moisture control and chemical management.

Garlough's dedication to providing a healthy environment for students and staff is evident in a myriad of ways. Students participate in various "energizers" every 20-30 minutes during the day to elevate heart rate for optimal learning. The entire school "walks from school" to the school buses on a path through the woods every other Friday. Six classrooms are equipped with treadmills and 80 under-desk peddlers are distributed throughout our classrooms to provide a mode of movement for children who need it. Organic gardens, a fresh salad bar, commitment to healthy snacks, thirty minutes of daily recess on top of several weekly academic outdoor lessons immerse our students and staff in quality nutrition, activity and authentic environmental lessons. The EPA's Sunwise Program teaches students about keeping their skin safe from UV rays.

Pillar III

Environmental and sustainability education is the honey that holds all the pieces of what we do at GEMS together. An integrated curriculum across all subjects using nature and environmental science as the integrating force provides opportunities for expansive use of ipods, ipads, laptops, probes, scopes, and expertly developed observation skills to practice and master math, science, engineering and technology skills. We visit Dodge Nature Center daily to supplement lessons with hands-on experiences at their working farm, wind turbine, orchard, apiary, pond and more. Our 20 Outdoor Wonder Learning Stations (OWLS) are aligned to MN State Academic Standards and each grade level has interdisciplinary lessons at these stations throughout their five years here focused on systems relationships. Each year, a major environmental theme is woven through curriculum on a rotating five-year cycle: Energy, Change, Cycles, Patterns, Systems; so that students will experience all in their K-4 tenure here. We also have monthly school-wide environmental themes which are taken from the Environmental Literacy Scope and Sequence. GEMS students are civically involved locally and internationally, having partnered with a school in Guatemala to support fresh water wells. They also have worked together collecting coats, shoes and pajamas to be donated for others in our community to re-use.

SCORE (out of 100 points): 91

APPLICANT INFORMATION

Name of School: Garlough Environmental Magnet

Response ID# (top of 42
page one on
application):

Reviewer (name): Bill Droessler

PURPOSE - This form is used to evaluate proposals based on criteria and associated points delineated in the Minnesota nominations for the US Department of Education Green Ribbon Schools program. In addition, reviewers must provide comments on the strengths and weaknesses of the proposals for each criterion, and comments overall about the proposal at the end. Clear, substantive and constructive comments explain for the record the scores given to the proposal, and also help in the debriefing of applicants who request a follow-up conversation after receiving their scores.

Background: The U.S. Department of Education Green Ribbon Schools criteria state:

"Inspiring schools to strive for 21st century excellence, the Green Ribbon Schools recognition award will recognize schools that have achieved or are making demonstrable progress toward 1) having a net zero environmental impact; 2) improving the health and performance of students and staff; and 3) ensuring the environmental and sustainability literacy of all graduates. These three 'Pillars' of the Green Ribbon Schools award will serve as guideposts to motivate states, tribes, districts, administrators, faculty, parents and students to create the most productive, enriching, and efficient schools possible. The demonstrated combined achievement in these three areas serves as the basis for the Green Ribbon Schools award."

Instructions: The nature of this particular application design requires that you exercise your best, impartial judgment as an expert in this field when scoring individual applications. The following worksheet offers some guidance on how to assign points within each Element, but you should feel free to deviate from this if it is clear to you that the situation warrants it. Your job as a reviewer in general is to look for "demonstrable" and "quantified" progress towards the Elements of three Green Ribbon pillars or goals, and score applicants in relation to each other on this as best you can.

Some items to keep in mind as you consider how many points to award in each element:

- The application includes some overlapping questions - each is a reasonable way to at least partially assess progress toward that element, which can make it difficult to assign points without "double-counting".
 - Some questions simply may not apply to a particular applicant, which makes scoring that question especially difficult. This clearly occurs in at least two situations:
 1. An older school (not modernized or renovated in the last 10 years). For example, an older school with renovations greater than 10 years old could automatically lose points through no fault of their own.
 2. An elementary school. For example, elementary schools may not have specific graduation requirements and rarely if ever offer career technical education.
- There may be other such situations as well, perhaps private or charter schools without a cafeteria, for example. In such cases, a school should not be automatically penalized for being unable to answer a question that simply does not apply to them. Therefore, you should take this into consideration as best you can when assigning points in that element.

Green Ribbon Pillar and Elements

(CC) Cross Cutting Questions – 5 points Under this factor proposals will be evaluated based on the extent to which the school identifies participation in Green School programs and/or awards for environmental and sustainability efforts:

1 point	School participates in a program that benchmarks progress.
2-3 points	In addition, school has received one award
4-5 points	In addition, school has received more than one award and has achieved an advanced level of progress in at least one recognized program
<u>5</u>	Subtotal (0 to 5 points)

Comments:

-participates in Green Schools Alliance and Energy Star
-won following multiple awards: Xcel Energy Efficiency Partner 2009, EPACT Certification 2010 Energy Star 2009, Energy Star Leader 2005, 2009, 2010, Energy Star Top Performer 2009, 2010

Pillar I: Environmental Impact and Energy Efficiency– 30 total points

Goal: Net zero energy, carbon, water, waste, and hazardous waste impacts.

(1A) Element IA: Improved energy conservation/energy-efficient building(s) - 15 points: Under this factor, proposals will be evaluated based on how well the application clearly and completely addresses buildings, grounds and operations goal: The school has made significant progress toward "net zero" environmental impact (zero carbon, solid waste, and hazardous waste footprints). They should demonstrate reduced greenhouse gas emissions, using an energy audit or emissions inventory and reduction plan, cost-effective energy efficiency improvements and on-site renewable energy and/or purchase of green power.

1-5 points School demonstrates some reduced energy use

6-10 points School has an Energy Star rating and an Energy Master Plan; demonstrates substantial reductions in electricity and heating energy use and carbon footprint; generates or purchases some renewable energy; has green building recognition for some new, renovated and/or existing buildings at minimum Silver level or equivalent; measures and offsets some of its remaining carbon footprint.

11-15 points School has an Energy Master Plan; is Energy Star rated above 90; demonstrates reductions from baseline in electricity, heating and carbon footprint of 35% or more; >50% of energy use comes from renewable sources; offsets a substantial amount of its remaining footprint; has received green building recognition at the Gold or higher for all new, renovated, and existing buildings.

14 Subtotal (0 to 15 points)

Comments:

-40% GHG reduction using B3 Benchmarking
-Energy Star Certification: Energy Star 2009 96, Energy Star Leader 2005 10%, 2009 20%, 2010 30%, Energy Star Top Performer 2009 81points, 2010 93 points
-22% reduction non-transportation energy use, documented through B3 Benchmarking
-20% purchased renewable energy
-building renovation received B3 Benchmarking 5 stars
-school has submitted data into the State of Minnesota's B3 Benchmarking website
-school building has been assessed using the Federal Guiding Principles Checklist in Portfolio Manager
-school has an energy and water efficient product purchasing and procurement policy in place
-school uses a 3rd party utility tracking, Bishop Engineering, to measure and report energy savings and avoided costs (such costs not mentioned in application though)
-school has temperature standards for both the heating and cooling season and building automation system for heating, cooling and lighting, which allows scheduling buildings for occupied and unoccupied status
-school has MAH Makeup air handling unit in kitchen to capture exhaust

(1B) Element IB: Improved water quality, efficiency, and conservation – 5 points: Under this factor, proposals will be evaluated based on how well the application addresses improved water quality, efficiency, and conservation:

1 point The school protects its water from contaminants; cleans its drinking water fountains and controls lead in drinking water.

2-3 points In addition, the school has smart irrigation and landscaping that is water-efficient; conducts annual water audits and controls leaks; installs some water-conserving fixtures and/or appliances (e.g. waterless urinals, dual-flush toilets, appliances); and can demonstrate a modest amount of reduction in water-use compared to baseline.

4-5 points In addition, the school demonstrates a substantial amount of reduction in water-use compared to baseline; uses only alternative water sources for irrigation (e.g. gray water; rainwater harvesting); provides only water-efficient fixtures; and uses other creative measures for protecting and conserving water at the school site (e.g. bioswales for controlling runoff).

5 **Subtotal (0 to 5 points)**

Comments:

-26% reduction in usage
-26% reduction in irrigation usage
-documented through district utility reports
-school conducts annual water system audits (for usage, leaks, lead)
-100% of landscape is water efficient/regionally appropriate
-all water fixtures were replaced with lead-free material in 2006-08
-school participates in LIVEGREEN Sustainability program, which promotes energy conservation and recycling through behavior changes, organic gardens, grow house rain gardens, prairie restoration, bird sanctuaries, butterfly gardens, vernal pond Peace Garden, woodland restoration, and chimney swift towers
-school uses motion sensors to control water usage on toilets, urinals and sinks
-grounds dept takes great care to not overwater landscaping
-school monitors and tracks water usage to detect any leaks or problems
-rain barrels are used to collect rain water for watering outdoor plants
-rain gardens take advantage of rainfall and stormwater runoff, slow the stormwater, increase time infiltration, minimizes erosion
-native plants are incorporated in site
-natural prairie and woodland restorations are utilized both for identification and water conservation/erosion

(1C) Element IC: Reduced waste production and improved recycling and composting programs – 5 points: Under this factor, proposals will be evaluated based on how well the application addresses reduced solid waste production, through increased recycling, reduced consumption, and improved management, reduction, or elimination of hazardous waste stream:

1-2 points School monitors its hazardous waste and disposes of it as required by state law; has a recycling program that diverts 20% of its solid waste (but no organics/ compost); purchases some paper with some recycled content; uses some “third-party certified” cleaning products; and describes a few creative ways the school community practices the 4Rs.

3-4 points In addition, school also has a pollution prevention approach to hazardous chemicals; recycles computer and electronics responsibly; purchases some electronics with E-PEAT certification; uses substantial amount of "third-party certified" cleaning products; has a recycling program that diverts 35% of its solid waste (some organics/ compost, such as yard waste); purchases substantial amounts of paper with recycled and chlorine-free content.

5 points School also has made substantial, measured progress towards a "zero waste" goal; has a recycling program that diverts 50% or more of its solid waste (including organics like yard waste and food waste); purchases substantial amounts of paper with > 30% recycled content, and chlorine-free; has an environmentally-preferable purchasing policy and a hazardous waste management policy that reduces and prevents solid and hazardous wastes; uses 100% "third-party certified" cleaning products (not including disinfectants); has a custodial program that meets "green" institutional services standards; and describes several creative ways the school community practices the 4Rs.

5 Subtotal (0 to 5 points)

Comments:

- recycling rate 62.5 %
- 90% of paper is certified through SFI and is chlorine free
- school has hazardous waste policies; utilizes only approved recycling programs
- school utilizes EPEAT products, custodial system is ISSA Green Building certified
- school utilizes Ecologo cleaning standard with 95% 3rd party certified products
- school donates Books to Africa, tennis shoes to GreenSneakers
- school recycles scrap metal
- school computers and fluorescent bulbs are recycled through U of MN hazardous waste reduction program
- school composts and recycles in every classroom hallway, bathroom, office and lunchroom
- school is monitoring lunchroom waste and compost and is working toward reductions
- school "right sized our trash pick ups" to cut down on unnecessary trips and trip charges
- school recycled carpeting during remodel
- school uses worm bins and composting for each classroom
- all lost and found items are washed and donated to the community

(1D) Element ID: Use of alternative transportation to, during, and from school – 5 points: Under this factor, proposals will be evaluated based on how well the application addresses expanded use of alternative transportation to, during and from school, through active promotion of locally-available options and implementation of enabling projects and policies:

- 1-2 points School has programs in place to promote more efficient and healthier transportation, including designated carpool stalls, anti-idling policy, no loading/unloading near air intakes; has some percentage of students that do not drive in a single vehicle to school, and has some means of connecting students to the schoolyard.
- 3-4 points In addition, school has a high percentage of students that do not drive in a single vehicle to school; participates in Safe Routes to Schools and identifies safe pedestrian routes; adopts a policy to promote active transportation; and has several means of connecting students to the schoolyard.
- 5 points In addition, school has alternative-fuel buses and other creative means of promoting alternative transportation.

5 Subtotal (0 to 5 points)

Comments:

- 19% walk/bike/carpool; 81% bus
- school has designated carpool parking stalls
- school has a well-publicized no idling policy that applies to all vehicles (including school buses)

-vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows
-school has established Safe Pedestrian Routes to school which are distributed to parents and posted in school
-school participates in a "Safe Routes to School"
-eligible bus fleet (33 buses) retrofitted through Project Green Fleet, 25% emission reduction
-school pursuing a "20 passenger bicycle with a solar-powered boost (bike-bus) for transporting students to and from school"

Pillar II: Healthy School Environments– 30 total points

Goal: The school improves the health and performance of students and staff

(2A) Element IIA: An integrated school environmental health program – 15 points: Under this factor, proposals will be evaluated based on how well the application documents an integrated school environmental health program based on an operations and facility-wide environmental management system that considers student and staff health and safety in all practices related to design, construction, renovation, operations, and maintenance of schools and grounds:

1-5 points School complies with all relevant state laws related to pesticides, mercury, tobacco and other hazardous materials; ensures good ventilation; keeps relative humidity below 60%;contains no mold; has CO alarms and inventory of appliances; complies with radon laws.

6-10 points In addition, school tests classrooms for radon within last 24 months; implements an Integrated Pest Management plan that eliminates pesticides; implements an Indoor Air Quality Program equivalent to Tools for Schools; uses "third-party certified" cleaning products; actively manages chemicals; and describes other measures of student and staff health and safety.

11-15 points School has completed everything in this section and uses an aggressive approach to eliminating environmental health and safety hazards (physical, biological, chemical, natural).

12 **Subtotal (0 to 15 points)**

Comments:

-85% of grounds devoted to ecologically/socially/culturally beneficial uses
-school complies with all relevant state laws related to pesticides, mercury, tobacco and other hazardous materials; ensures good ventilation; keeps relative humidity below 60%;contains no mold; has CO alarms and inventory of appliances; complies with radon laws
-school has IAQ program consistent with IAQ Tools for Schools
-school has an asthma management program that is consistent with the National Asthma Education and Prevention Program's (NAEPP) Asthma Friendly Schools guidelines

(2B) Element IIB: An integrated school environmental health program – 15 points: Under this factor, proposals will be evaluated based on how well the application addresses high standards of nutrition, fitness, and quantity of quality outdoor time for both students and staff.):

- | | |
|-----------------|---|
| 1-5
points | School conducts at least an average of 120 minutes per week per student of physical education with a reasonable amount conducted outdoors; has an on-site food garden; and participates in some nutrition program. |
| 6-10
points | School also participates in a farm-to-school program; participates in USDA or other nutrition program at a high level; students participate in Sunwise-type program; some food purchased is certified organic; food from school garden is eaten by students. |
| 11-15
points | School also purchases a substantial amount of food certified organic; reduced UV and heat exposure; more than 50% of physical education annually takes place outdoors; and undertakes other measures to promote healthy nutrition, and high quality outdoor time. |

14 **Subtotal (0 to 15 points)**

Comments:

-school participates in the USDA's Healthier School Challenge or another nutrition program
-school has an onsite food garden
-school garden supplies food for cafeteria
students spend an average of at least 120 minutes per week in school supervised physical education
-at least 50% of students' annual physical education takes place outdoors
-school participates in a Farm to School program or other program to utilize local food in cafeteria
-at least 50% of students have participated in the EPA's Sunwise program
-school received Silver Award Healthier U.S. School Lunch Challenge; menu changes in the last year incorporate more whole grains, dark green and orange vegetables
-school participated in "Let's Move Salad Bars to Schools" where the district completed taste testing of ten new food options for the a la carte line that comply with Institute of Medicine nutrition standards
-district recently applied for USDA Fresh Fruit and Vegetable program
-school has more than 20 MN Academic-standards based outdoor classrooms (called OWLS- Outdoor Wonder Learning Stations), including Chipmunk Park, Rain Garden, Bird Sanctuary for feeding and observation, Peace Garden for quiet reflection and writing, barn for housing garden supplies and math lessons, Raised Beds for each classroom to plant organic, community garden- to be used by members of the Garlough community, ID Tree Walk- many species marked for student identification, Outdoor Weather Station and WeatherBug, Outdoor Amphitheater for performances and teaching in nature, Good Vibrations outdoor musical playground, Butterfly Gardens to attract a variety of insects for study, Tulip Gardens- used in conjunction with Journey North Nature Trail (and chamber of repulsion for decomposition observation), Woodland Restoration –invasive species removal/watch Prairie Restoration , Vernal Pond, Bird Central observation station The Growing House greenhouse Natural Imagination Playground, Tree I.D. and Native Plant Identification Search Tree Trust Math Maze (in development)

(3A) Element IIIA: Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems - 20 points: Under this factor, proposals will be evaluated based on how well the application addresses interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems:

- | | |
|-----------------|---|
| 1-5
points | School incorporates limited environmental and sustainability (E/S) activities in some grades; includes limited E/S concepts in some assessments; and <20% of teachers participate in occasional E/S professional development opportunities. |
| 6-10
points | School integrates E/S concepts into many subjects; integrates E/S into some class and school assessments; >50% of teachers participate in occasional E/S professional development opportunities; enrolls at least 5% of the school's eligible graduates in AP environmental science during their high school career. |
| 11-15
points | School focuses E/S literacy efforts on understanding the key relationships between dynamic environmental, social, and economic systems; incorporates E/S themes and topics in many grades, subjects, classroom and school assessments; >75% of teachers participate in one or more E/S professional development opportunities annually. |
| 15-20
points | School has an E/S graduation/ matriculation requirement which is focused on understanding the key relationships between dynamic environmental, social, and economic systems; fully integrated E/S into the curricula scope and sequence of learning and matriculation standards for all grades; enrolls >5% of the school's eligible graduates in AP environmental science during their high school career.
NOTE: EPA may also consider information from other sources, including agency files, for evaluating the factors under Programmatic Capability and Past Performance. |

17 **Subtotal (0 to 20 points)**

Comments:

-school has an environmental or sustainability literacy graduation requirement and such concepts are integrated throughout the curriculum, and integrated into classroom based and schoolwide assessments
-professional development opportunities in environmental and sustainability education are provided for all teachers
-all students will be required to know a minimum about each OWL before graduating to 5th grade
-curriculum, standards, and goals have been discussed and designed over the past couple years with staff and environmental science specialists
-school is developing the formal program called "Wise Young Owls", which is a series of environmental literacy thresholds students pass through at every grade level; various environmental concepts such as native species identification, reduce, reuse, recycle, environmental engineering, and earth science projects are part of the program
-students will be able to demonstrate their level of proficiency in any variety of ways including traditional paper/pencil, technology based, arts based etc.
-90% of the students at Garlough are proficient in composting and recycling, which is assessed by "rot rangers" in the classroom and in the lunchroom - Rot Rangers make sure all recyclable and compostable materials are in the correct containers
-recently 50% of students participated in an all-school program called "Leave No Trace", which promotes children using the outdoors responsibly
-most environmental and sustainability concepts are imbedded within the science and social studies curriculums
-Garlough teaching staff participated in the following with 100% participation: Jeffer's Foundation's programs: Go Outdoors - Calendar in the Classroom, EE Moments which is based on ResponsiveClassroom
-all classroom teachers partnered with Stillwater Schools in grade level exchange - Garlough students taught

Stillwater students about our environmental school, and partnership with Dodge.
-Hamline University staff led a school-wide inquiry on place-based student inquiry
-individual or small teams of teachers have participated or facilitated the following programs: U of M Monarchs in the Classroom, Plant Biology, Schoolyard Ecology, Project Wet & Wild, Itasca Biology Station Inquiry Program

(3B) Element IIIB: Use of the environment and sustainability to develop Science, Technology, Engineering, and Mathematics (STEM) content, knowledge, and thinking skills - 5 points: Under this factor, proposals will be evaluated based on how well the application addresses use of the environment and sustainability to develop STEM content knowledge and thinking skills to prepare graduates for the 21st century technology-driven economy:

- | | |
|------------|--|
| 1-3 points | School sometimes integrates E/S into science courses; makes some connections to E/S careers; and provides some additional evidence about links to STEM. |
| 4-5 points | School frequently integrates E/S concepts into STEM courses; curricula makes many connections throughout to E/S careers, career tech/green jobs; offers E/S related CTE courses; and provides a substantial amount of additional evidence about links to STEM education. |

4 Subtotal (0 to 5 points)

Comments:

-for elementary school, staff have integrated environmental and nature-based concepts into curriculum, in addition to science
-as an environment magnet school, "STEM strands are woven into projects regularly"; work requires "students to ask questions, observe, collect and interpret data"
-school course, "iNature, has monthly environmental concepts taught schoolwide, including Patterns of Nature, Cycles, Migrations, Biomes, Classification, Technology in Nature, Communication, Energy and Change"
-naturalist takes all students outside every week for "investigations and inquiries relating to what is learned in class, or seasonal topics"
-school lessons are "standards-based, and multi-disciplinary, using math, social studies, language arts, technology, the arts, and science integration"
-school hopes in 2013 to complete the Wise Young OWLS program, which is based on the MN Environmental Education standards
-"each year, students will be expected to demonstrate age-appropriate literacy in environmental and sustainability concepts, culminating in a certification by 4th grade"

(3C) Element IIIC: Development and application of civic engagement knowledge and skills - 10 points: Under this factor, proposals will be evaluated based on how well the application addresses development of civic engagement knowledge and skills, and students' application of these to address sustainability and environmental issues in their community:

- | | |
|--------------|---|
| 1-3 points | School has civic projects related to environment and sustainability in some grades; occasional meaningful outdoor learning experiences in a few grades; and a few community partnerships, perhaps only involving donations of funds/supplies. |
| 4 -7 points | In addition, school employs best practices for inquiry-based, hands-on, experiential learning in both their civic and outdoor experiences; projects are not "one-off" but instead are in-depth service learning and civic projects fully integrated with school's academic coursework. |
| 8 -10 points | School receives full credit when all grades have civic projects; when all grades have meaningful outdoor learning experiences; and when the quality and quantity of community partnerships results in sustainability advances at the school, other schools and the wider community. Higher points for inspiring and creative projects and partnerships. |

10 Subtotal (0 to 10 points)

Comments:

-one story from the application – “Middle school administration tells us that our incoming 5th graders were so shocked that the middle schools were not composting and recycling, they worked tirelessly until changes were made. It is that very message, that ten year old children feel empowered and responsible to make changes in a large institution, which validates our work at Garlough.”

-school partnered with Dakota County to enhance recycling

-school has several listed community partners: Dodge Nature Center; Eagle Bluff; the University of MN; Brown College; Jeffers Foundation; Specialized Environmental Technologies, Inc. and the Mulch Store to offer compost in the spring time to staff and our community - the compost is from school's own lunch room

-school principal participated in the Fulbright Japan ESD program in 2010

-a school community collaborative meets monthly “to provide students with a safe network of community support” which includes several faith based organizations, Dakota county libraries, West St. Paul police and fire departments, YMCA

-schools outdoor learning space has been developed by Eagle Scouts, and city council changed zoning policy to allow lower impact structures, such as the yurt proposed at the school

Worksheet:

<u>Possible points</u>	<u>Score</u>	
0-5	5	(CC) Cross Cutting Questions
0-15	14	(1A) Element IA
0-5	5	(1B) Element IB
0-5	5	(1C) Element IC
0-5	5	(1D) Element ID
0-15	12	(2A) Element IIA
0-15	14	(2B) Element IIB
0-20	17	(3A) Element IIIA
0-5	4	(3B) Element IIIB
0-10	10	(3C) Element IIIC
	91	TOTAL SCORE (out of 100 points)

APPLICANT INFORMATION

Name of Organization: Garlough Environmental Magnet

Response ID#: 42

Reviewer Name: Bill Droessler **Error! Reference source not found.**

Overall strengths of the proposal:

- well written, concise, direct, full of information
- remarkable amount of thoughtful and meaningful school activity described
- evocative description of what must be a transformative education experience
- activity in every category
- easily understood passion for a special learning environment

Overall weaknesses of the proposal:

review.

9. OCR has not issued a violation letter of findings to the public school district concluding that applicant or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective plan to remedy the violation.

10. 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.

11. 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.

12. The school and the district (if the school is a public school) meet applicable federal, state, tribal, and local health, environmental and safety requirements in law, regulations, and policy, and is willing to undergo U.S. Environmental Protection Agency (EPA) on-site verification.

3. Page Three

School Contact Information

Independent School District Number (if applicable)

197

School Name

Garlough Environmental Magnet

Street Address

1740 Charlton Street

City

West St. Paul

State

MN

Zip

55118

School Website

<http://www.rschooldtoday.com/se3bin/dientschool.cgi?schoolname=school174>

Principal First Name

Susan

Principal Last Name

Powell

Principal Email Address

susan.powell@isd197.org

Principal Phone Number

6514038101

Lead Applicant First Name (if different from principal)

Lead Applicant Last Name (if different from principal)

Lead Applicant Email

Lead Applicant Phone Number

6514038101

Level

Elementary (PK - 5 or 6)

1. School Type

Public

How would you describe your school?

Private/Independent

2. Does your school have at least 40 percent of your students from a disadvantaged background?

Yes

4. Page Four

Application Outline:

Green Ribbon Pillars and Elements

Points

Cross-Cutting Questions: Participation in Green School Programs and/or Awards for Environmental and Sustainability Efforts 5%

5 points

PILLAR ONE: Net zero environmental impact: 30%

Element 1A: Zero greenhouse gas (GHG) emissions

15 points

Energy

Buildings

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

5 points

Water

Grounds

Element 1C: Reduced waste production

5 points

Waste

Hazardous waste

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

5 points

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

Element 2A: An integrated school environmental health program

15 points

Integrated Pest Management

Contaminant controls and Ventilation

Asthma control

Indoor air quality

Moisture control

Chemical management

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

Fitness and outdoor time

Food and Nutrition

Ultra Violet (UV) safety

PILLAR THREE: 100% of the school's graduates are environmentally and sustainability literate: 35%

Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems 20 points

Element 3B: Use of the environment and sustainability to develop STEM content, knowledge, and thinking skills 5 points

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

TOTAL 100 points

5. Page Five

QCC1: Is your school participating in a local, state, or nationally recognized green school program which asks you to benchmark progress in some fashion (for example, National Wildlife Federation Eco-Schools USA, Green Schools Alliance, Collaborative for High Performance Schools, Project Learning Tree's Green Schools!, Environmental Initiative's Minnesota Environmental Education Award or Minnesota Pollution Control Agency Governor's Award for Pollution Prevention)?

Yes

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

Green Schools Alliance, Energy Star

QCC2: Has your school, staff or student body received any awards for environmental or sustainability stewardship/action?

Yes

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

Xcel Energy Efficiency Partner 2009, EPACT Certification 2010 Energy Star 2009, Energy Star Leader 2005, 2009, 2010, Energy Star Top Performer 2009, 2010,

6. Page Six

Pillar 1: Environmental Impact and Energy Efficiency

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

Pillar 1 includes four main elements:

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

B) Improved water quality, efficiency, and conservation.

C) Reduced solid waste production, through increased recycling, reduced consumption, and

improved management, reduction, or elimination of hazardous waste stream.

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

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

7. Page Seven

Q 1A1: Can your school demonstrate a reduction in its Greenhouse Gas emissions?

Yes

Please provide the following information:

Initial GHS emissions rate (MT eCO₂/person) : 1.39

Final GHG emissions rate (MT eCO₂/person) : .83

Percentage reduction : 40%

Time period measured (mm/yyyy - mm/yyyy) : 1/2007 - 12/2011

How did you document this reduction (e.g., B3 Benchmarking, the inventory module from Clean Air Cool Planet's Campus Carbon Calculator)? : B3 Benchmarking

Q 1A2: Has your school received EPA ENERGY STAR certification or does it meet the requirements for ENERGY STAR certification?

Yes

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

Energy Star 2009 96, Energy Star Leader 2005 10%, 2009 20%, 2010 30%, Energy Star Top Performer 2009 81points, 2010 93 points,

Q 1A3: Has your school reduced its total non-transportation energy use from an initial baseline?

Yes

Please provide the following information:

Percentage reduction : 22%

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

Time period measured (mm/yyyy - mm/yyyy) : 1/2007-12/2011

How did you document this reduction (ie. B3 Benchmarking, ENERGY STAR portfolio, district report)? : B3 Benchmarking

Q 1A4: What percentage of your school's energy is obtained from:

On-site renewable energy generation : 0

Purchased renewable energy : 20% of electricity. Electricity accounts for 58% of energy used.

In what year was your school constructed?

1957

What is the total building area of your school?

62339

Q 1A5: Has your school constructed a new building or renovated an existing building in the past ten years?

Yes

Please provide the following information:

What is the total constructed area? : 2859

What is the total renovated area? : 59480

Percentage of the building area that meets green build standards (for example, B3 Benchmarks, LEED, CHPS, Green Globes or other standards) : N/A

Which certification did you receive and at what level? : B3 Benchmark 5 stars

Q1A6: Do any parts of your existing buildings meet green build standards (for example, B3 Benchmarks, LEED, CHPS, Green Globes, or other standards)?

No

Please provide the following information:

Q1A7: Does your school reduce and/or offset the greenhouse gas emissions from building energy use?

No

Please provide the following information:

Q1A8: Please indicate which green building practices your school is using to ensure your building is energy efficient.

School has submitted data into the State of Minnesota's B3 Benchmarking website

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

School has an energy and water efficient product purchasing and procurement policy in place

Other (please describe): we use a 3rd party utility tracking, Bishop Engineering, to measure and report energy savings and avoided costs.

8. Page Eight

Q1B1: Can you demonstrate a reduction in your school's total water consumption (measured in gallons/occupant) from an initial baseline?

Yes

Please provide the following information:

Percentage reduction domestic : 26%

Percentage reduction irrigation : 26%

Time period measured (mm/yyyy - mm/yyyy) : 1/2007-12/2011

How did you document this reduction (ie. ENERGY STAR Portfolio Manager, school district reports)? : school district reports

Q1B2: Which of the following practices does your school employ to increase water efficiency and ensure quality? (Please check all that apply)

Our school conducts annual audits of the facility and irrigation systems to ensure they are free of significant water leaks and to identify opportunities for savings.

Our school's landscaping is water-efficient and/or regionally appropriate.

Our school has a program to control lead in drinking water (including voluntary testing and implementation of measures to reduce lead exposure)

Please provide the following information about your school's landscaping

What percentage of your total landscaping is considered water-efficient or regionally appropriate? : 100%

What types of plants are used and where are they located? : Zone 4a perennials, evergreen, deciduous. They are planted in several locations around the building.

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

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

The district has performed lead in water sampling. Through renovation all of our fixtures were replaced with lead free fixtures in 2006- 2008. Our next lead in water testing is scheduling for this year 2012.

Q1B3: Our school's drinking water comes from:

Municipal water source

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

Q1B4: Please describe any additional progress your school has made towards improving water quality, efficiency, and conservation. (Maximum 200 words)

Water conservation has been part of the LIVEGREEN Sustainability program for many years. We use motion sensors to control water usage on toilets, urinals and sinks. The grounds dept takes great care to not overwater landscaping. We monitor and track water usage to detect any leaks or problems. Rain barrels are used to collect rain water for watering outdoor plants. Rain gardens takes advantage of rainfall and stormwater runoff and serve to slow the stormwater as it travels downhill, giving the stormwater more time to infiltrate and less opportunity to gain momentum and cause erosion. Native plants are incorporated in our grounds, designed to grow well in the climate without additional watering needs. Natural prairie and woodland restorations are part of the grounds as well, both for identification and water conservation/erosion reasons listed above.

9. Page Nine

Q1C1: What percentage of solid waste is diverted from landfilling or incinerating due to recycling and/or composting (i.e. Recycling Rate)?

A - Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected). : $6 \times 6 = 24$

B - Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected). : $6 \times 6 = 24$

C - Monthly compostable materials volume(s) in cubic yards (food scrap/food soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected). : $4 \times 4 = 16$

Recycling Rate = $(B + C + D) \div (A + B + C + D) \times 100$: $40/64 \times 100 = 62.5\%$

D - Monthly food waste volume in cubic yards diverted as food to pigs x number of collections per month x percentage full when emptied or collected). : 0

Q1C2: 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, Sustainable Forestry Initiative, American Tree Farm System or other certification standard. (If a product is only 30% recycled, only 30% of the cost should be counted)

90% of our paper comes from mills that are SFI Certified Sourcing.

Q1C3: What percentage of the total office/classroom paper content by cost is totally chlorine-free (TCF) or processed chlorine free (PCF)

90% or more

Q1C4: Please provide the following information about your school's hazardous waste (In 2007, the Minnesota Legislature passed a law banning mercury in elementary and secondary schools)

List the types of hazardous waste generated : fluorescent tubes, computers

How much hazardous waste does your school produce (lbs/person/year)? : .33

How is the amount generated calculated? : The receipts from Asset Recovery include total weight

How is hazardous waste monitored? : Director of Health and Safety

Q1C5: Which of the following benchmarks has your school achieved to minimize and safely manage hazardous waste? (Please check all that apply)

Our school has a hazardous waste policy for storage, management, and disposal that is actively enforced.

Our school practices green chemistry in the academic setting by using chemicals with less hazardous characteristics

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

All our computer purchases are Electronic Product Environmental Assessment Tool (EPEAT) certified products

Our custodial program has been certified by the ISSA Cleaning Industry Management Standard - Green Building (or other equivalent standard).

Which green cleaning standard is used?

Our cleaning chemicals meet Ecologo Standards (the generic label for Green Seal Standard for Commercial and Institutional Cleaning Services)

Q1C6: Does your school use "third party certified" green cleaning products?

Yes

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

What percentage by volume of all cleaning products in use are "third party certified" green cleaning products? : 95%

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

Q1C7: What other indicators do you have of your school's reduction of solid waste and elimination of hazardous waste? (Maximum 200 words)

We donate Books to Africa, tennis shoes to GreenSneakers, we recycle scrap metal, our computers and fluorescent bulbs are recycled. We participated in the U of M hazardous waste reduction program. We compost and recycle in every classroom hallway, bathroom, office and lunchroom. We weigh our lunchroom waste and compost, which has been reduced. The carpeting during remodel was recycled. We use worm bins and composting for each classroom. All lost and found items are washed and donated to the community.

Q1D1: What percentage of your students walk, bike, bus, or carpool (2 + student in the car) to/from school?

Walk/bike/carpool 19%, bus 81%

How was this data collected and calculated? (Maximum 100 words)

There are 465 registered students at GEMS, 374 of those students use district busing. That equates to 81 percent of GEMS students riding the bus.

Q1D2: Which of the following policies or programs has your school implemented (Minnesota schools are required by state law to reduce the unnecessary idling of school buses in front of schools, and reroute bus parking zones away from air-intake vents):

Our school has designated carpool parking stalls.

Our school has a well-publicized no idling policy that applies to all vehicles (including school buses).

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

Our school has established Safe Pedestrian Routes to school which are distributed to parents and posted in our office.

Our school participates in a "Safe Routes to School"

Q1D3: Describe how your school transportation use is efficient and has reduced environmental impacts (e.g. the percentage of school-owned electric/hybrid/alternative fuel vehicles in your fleet, or other indicators of significant reductions in emissions):

In 2009 we partnered with Project Green Fleet, to improve air quality by reducing diesel emissions. 33 of 61 buses were made "green" by installing catalyst mufflers that reduce engine emissions by up to 25%. Buses eligible for retrofits are older buses with diesel engines that are expected to still provide many years of service — newer buses create less pollution. The majority of remaining buses meet 2009 emission standards. We are pursuing a 20-passenger bicycle with a solar-powered boost (bike-bus) for transporting students to and from school. Bicycle engineers produced a rendering pending funding.

Q1D4: What percentage of the school grounds are devoted to ecologically beneficial uses (school vegetable garden, wildlife or native plant habitats, outdoor classroom, environmental restoration projects, rain garden, etc.) or socially/culturally beneficial uses (e.g., playgrounds, outdoor spaces designed and used regularly for social interaction, athletic or recreational areas, walking or running trails etc.)?

85%

Q1D5: This is the end of Pillar 1. Please describe any other accomplishments or progress your school has made towards reducing/eliminating environmental impacts or improving your energy efficiency. (Maximum 200 words)

We have Indoor temperature standards for both the heating and cooling season. Our building automation system for heating, cooling and lighting allows us to schedule buildings for occupied and unoccupied. We have MAH Makeup air handling unit in our kitchen to capture exhaust. This is the fifth year we have composted lunch waste. We partnered with Dakota County to

enhance our recycling, we have recycle bins in every classroom, office and hallway. Every trash, recycle and compost bin has a label so what goes where is clear. We have right sized our trash pick ups to cut down on unnecessary trips and trip charges. Buildings are closed for summer months (consolidate school programs district wide to reduce energy), LIVEGREEN club that promotes energy conservation and recycling through behavior changes. organic gardens grow house rain garden prairie restoration bird sanctuaries butterfly gardens vernal pond Peace Garden woodland restoration chimney swift towers orchard energy efficient thermo windows

10. Page Ten

Pillar 2: Healthy School Environments

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

Pillar 2 includes two main Elements:

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

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

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

11. Page Eleven

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

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

Pest control policies, methods of application, and posting requirements are provided to parents and school employees in accordance with the Janet B. Johnson Parents' Right-to-know Act (Minn. Stat. § 121A.30).

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

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

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

Our school has a comprehensive indoor air quality management program that is consistent with Indoor Air Quality (IAQ) Tools for Schools.

Our school meets the recommended 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.

Wood structures on school grounds that contain chromate copper arsenate have either been removed or sealed within the past 12 months.

Our school visually inspects all structures on a regular basis for evidence of mold, moisture, and water leakage and identified issues are addressed promptly.

Our school's indoor relative humidity is maintained below 60%.

Our school has a chemical management program that includes: chemical purchasing policy (low or no-VOC products), storage and labeling, training and handling, hazard communication, spills (clean up and disposal), and selecting EPA's Design for the Environment approved cleaning products.

Our school prohibits smoking on campus and in public school buses.

All of the ground contact classrooms at our school have been tested for radon after changes to the building foundation or ventilation system, or within the past 5 years.

Does your school annually inspect combustion appliances to ensure they are not releasing Carbon Monoxide? (yes/no/no

combustion appliances): yes

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 is in compliance with Minn. Stat. § 121A.33 to eliminate the purchase, storing or use of elemental mercury or an instrument of measurement containing mercury for any purpose. (This does not apply for fluorescent bulbs, mercury thermostats, switches, and gauges for heating, ventilation and air conditioning (HVAC) systems).

12. Page Twelve

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

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

Our school has an onsite food garden.

Our school garden supplies food for our cafeteria.

Our students spend an average of at least 120 minutes per week (over the past year) in school supervised physical education.

At least 50% of our students' annual physical education takes place outdoors.

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

At least 50% of our students have participated in the EPA's Sunwise program (or other equivalent UV protection and skin health education program).

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

Received Silver Award Healthier U.S. School Challenge o Lunch menu changes in the last year incorporate more whole grains, dark green and orange vegetables, o Let's Move Salad Bars to Schools o The district completed taste testing of ten new food options for the a la carte line that comply with Institute of Medicine nutrition standards o The district recently applied for USDA Fresh Fruit and Vegetable program, o The District197 Wellness Committee, which has monthly meetings to discuss nutrition and physical activity initiatives, is looking for parent representatives.

Please describe the type of outdoor exercise opportunities and nature-based recreation available to students, including features such as trails, natural playgrounds, gardens, habitat projects, outdoor classrooms and any other features designed, implemented and/or used by students and teachers. (Maximum 200 words)

We have over 20 MN Academic-standards based outdoor classrooms (called OWLS- Outdoor Wonder Learning Stations) including Chipmunk Park, Rain Garden, Bird Sanctuary for feeding and observation, Peace Garden for quiet reflection and writing, Barn for housing garden supplies and math lessons, Raised Beds for each classroom to plant organic, Community garden- to be used by members of the Garlough community ID Tree Walk- many species marked for student identification, Outdoor Weather Station and WeatherBug, Outdoor Amphitheater for performances and teaching in nature, Good Vibrations outdoor musical playground, Butterfly Gardens to attract a variety of insects for study, Tulip Gardens- used in conjunction with Journey North Nature Trail (and chamber of repulsion for decomposition observation), Woodland Restoration -invasive species removal/watch Prairie Restoration , Vernal Pond, Bird Central observation station The Growing House greenhouse Natural Imagination Playground, Tree I.D. and Native Plant Identification Search Tree Trust Math Maze (in development)

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

unknown at this point

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

We have several partners: primarily Dodge Nature Center across the street, where our students spend time each week, both at formal field trips, and with our Dodge Naturalist, Pete Cleary. We have Walk From School Days every other Friday, when students hike from school across the Dodge grounds to the buses on the far end of the site. Our 4th grade go to Eagle Bluff every January. We work with Eagle Scouts from the community to help build our OWLS, and partner with the University of MN, Brown College and Jeffers Foundation in a variety of ways. "Turning Your Lunch into Food for the Earth" this will be the second year we have teamed up with Specialized Environmental Technologies, Inc. and the Mulch Store to offer compost in the spring time to staff and our community. The compost is from our own lunch room, bringing our recycling efforts full circle. This

nutrient rich compost is used for lawns, gardens and pots. This compost is also being used by our own grounds department for spring patches and repair.

13. Page Thirteen

Pillar 3: Environmental and Sustainability Education

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

Pillar 3 includes three main Elements:

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

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

14. Page Fourteen

Q3A1: Which practices does your school employ to help insure the environmental and sustainability literacy of your graduates? (Please check all that apply)

- Our school has an environmental or sustainability literacy graduation requirement
- Environmental and sustainability concepts are integrated throughout the curriculum.
- Environmental and sustainability concepts are integrated into classroom based and schoolwide assessments.
- Professional development opportunities in environmental and sustainability education are provided for all teachers.

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

Garlough Environmental Magnet School is in its 5th year of magnet implementation and as a K - 4 school our students don't qualify to participate in Minnesota's official Young Naturalist Program. During the past five years Garlough has developed 20 outdoor classroom areas referred to as OWLS (Outdoor Wonder Learning Stations.) All students at Garlough will be required to know a minimum about each OWL before graduating to 5th grade. So.....our literacy graduation requirement is being developed. Curriculum, standards, and goals have been discussed and designed over the past couple years with staff and environmental science specialists. This year we started developing the formal program called "Wise Young Owls", which is a series of environmental literacy thresholds students pass through at every grade level. Environmental concepts such as native species identification, reduce, reuse, recycle, environmental engineering, and earth science projects are part of the program.

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

Once our formal Wise Young Owls program is completed, students will demonstrate their knowledge and learning in a variety of ways. We envision students outside identifying trees, native plants and invasive species as well as being able to identify the same items on paper. Students will be able to demonstrate their level of proficiency in any variety of ways including traditional paper/pencil, technology based, arts based etc. 90% of the students at Garlough are proficient in composting and recycling. This is assessed on a daily basis by "rot rangers" in the classroom and in the lunchroom. Rot Rangers make sure all recyclable and compostable materials are in the correct containers. This fall 50% of our students participated in an all-school program called "Leave No Trace", which promotes children using the outdoors responsibly. This program emphasized what we teach here at Garlough, which is leaving indoor and outdoor spaces as pristine or better than found. As an elementary school, most environmental and sustainability concepts are imbedded within the science and social studies curriculums. Food waste is weighed and measured by all fourth grade students. This will be expanded to other grade levels.

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

Garlough teaching staff participated in the following with 100% participation: Jeffer's Foundation's programs: Go Outdoors-Calendar in the Classroom, (which used Weatherguide calendar as curriculum), EE Moments which is based on Responsive Classroom, We have scheduled "a Teaching with Mother Nature" for our next staff development. All classroom teachers partnered with Stillwater Schools in grade level exchange. Our students taught Stillwater students about our environmental school, and partnership with Dodge. Hamline University staff led a school-wide inquiry on place-based student inquiry. Our principal participated in the Fulbright Japan ESD program in 2010. The Japanese delegation visited Garlough while in the US and held a Q and A with Garlough staff about sustainability efforts in Japan. Our principal then spent 3 weeks in Japan visiting schools and learning first hand about their ESD efforts at the elementary, middle and High School levels. Individual or small teams of teachers have participated or facilitated the following programs: U of M Monarchs in the Classroom, Plant Biology, Schoolyard Ecology, Project Wet & Wild, Itasca Biology Station Inquiry Program.

Q3A2: If your school serves grades 9-12, please provide the following information:

Please describe other environmental or outdoor education courses available to your students, including honors, International Baccalaureate or other general courses on the environment, sustainability or the outdoors and how many students were enrolled in each course during the last school year. (Maximum 200 words)

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

Yes

Please describe. (Maximum 200 words)

For the past 7 years, staff have met 8 hours each and every month to integrate environmental and nature-based concepts into every corner of our curriculum, in addition to science. As a magnet school, STEM strands are woven into projects regularly. We hold all-school take-home inquiries on a regular basis, requiring students to ask questions, observe, collect and interpret data. One course, iNature, has monthly environmental concepts taught schoolwide, including Patterns of Nature, Cycles, Migrations, Biomes, Classification, Technology in Nature, Communication, Energy and Change. Our Dodge naturalist takes all students outside every week for investigations and inquiries relating to what is learned in class, or seasonal topics. We study phenology schoolwide, and students have journals they keep observations in. Our unique 8 acre site allows us to study sustainability and the environment using our 20 Outdoor Wonder Learning Stations (OWLS), which have been developed on our grounds. The lessons are standards-based, and multi-disciplinary, using math, social studies, language arts, technology, the arts, and science integration.

Q3B2: If your school is a high school, does your school curriculum make connections between classroom and college and career readiness, in particular post-secondary options in environmental and sustainability fields (for example, CTE Green Sustainable Design and Technology course)?

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

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

Yes

If not in all grades, please specify which grades.

What percentage of last year's graduates scored proficient or better on a community or civic engagement skills assessment?

n/a Our school is K-4

Please provide the following information:

Q3C2: Do students have meaningful outdoor learning experiences (experiences that engage students in critical

thinking, problem solving and decision making) at every grade level?

Yes

If not in all grades, please specify which grades.

Please share how outdoor learning is used to teach an array of academic subjects in contexts, engage the broader community, and develop civic skills. Also describe any regular school-based trips to environmental learning centers or similar activities. (Maximum 200 words)

Our 20 outdoor classrooms are used to teach lessons in every academic area, as well as the use of Dodge Nature Center. For example, a butterfly garden is used to teach math and graphing. Students sit on stumps and tally the number of butterflies, honeybees, dragonflies etc they observe. Students then tip over their stump and tally the number of pill bugs, worms, centipedes, etc they observe. This data is used for number sentences, teaching greater than and less than, categorizing and graphing, for example. In addition, the data may be used to write a story. 4th grade students attend Eagle Bluff Environmental Learning Center each winter. Students visit Dodge weekly on an informal basis, and have three additional formal grade level trips. Organic gardens are planted by each classroom. Seedlings are sold as a fundraiser and as a service project for a local faith community. We have student ambassadors who give tours and information to local, state, national and international visitors about our school.

Please share how environmental and outdoor learning is integrated into other school programs, including before and after school, during the summer and other enrichment opportunities. Examples include child care programs, community education courses and student green teams, environmental or outdoor clubs (Maximum 200 words)

Our Environmental Education Fair, (EEF), replaced a traditional school carnival. Staff, students and community members host a variety of environmental themed activities throughout the school one night each spring. Attendance is huge. Family Fun Nights are monthly evening events hosted by our physical education staff. These involve e-themed games, food and activities for the whole family. Outdoor Fun Fest (OFF), is a special tent camping-sleepover night on our grounds, for our 3rd graders each spring to help them prepare for the 4th grade adventure to Eagle Bluff. We host Pie Nights for our struggling readers and their families, incorporating green-themed learning activities. LIVEGREEN is our student club, led by a parent volunteer. They promote and organize fundraisers and awareness of a multitude of GREEN challenges, Music programs always have an environmental focus. Our after-school program, Targeted Services is a remedial and enrichment program with unique class topics reflecting our environmental theme. Earth Day becomes an all-school event with all students collecting trash. We've hosted community events to teach about Solid Waste Management Reduce/Reuse/Recycle and Dakota County green cleaners, Dodge weekend events, summer camps, fundraisers, and a walk-a-thon are also available for our students,

Q 3C3: Please describe your partnerships with the local community (e.g., academic, business, government, nonprofit and informal science institutions) to help advance your school, other schools (especially schools with fewer resources) and the greater community toward the 3 Pillars. Include both the scope and impact of these partnerships. (Maximum 300 words)

Garlough and Dodge Nature Center has become a model of what a successful partnership can be. We are a resource for not only magnet schools and districts in the metro area, but state, national and even international educators desiring to learn about our award-winning program have visited. The Garlough collaborative meets monthly to provide students with a safe network of community support. This network includes several faith based organizations, dakota county libraries, West St. Paul police and fire departments, YMCA. 360 Communities and neighbors, provide We are very involved with MSA (Magnet Schools of America), sending teacher presenters there and other local and national conferences to share our program. We were the first school in the district to receive Energy Star awards, which eventually led to the other schools in the district to follow suit. Our students leave Garlough with a strong sense of responsibility for our planet, and are often activists. Middle school administration tells us that our incoming 5th graders were so shocked that the middle schools were not composting and recycling, they worked tirelessly until changes were made. It is that very message, that ten year old children feel empowered and responsible to make changes in a large institution, which validates our work at Garlough. Much of our outdoor learning space has been developed by Eagle Scouts, and our city council changed zoning policy to allow lower impact structures, such as the yurt we've proposed, in the city. working towards net zero env impact, + impact on performance of students, staff, 100% env sust literate

Q 3C4: This is the end of Pillar 3. Please describe other methods and measurements your school uses to ensure matriculating students are environmentally and sustainability literate. (Maximum 200 words)

We've made great strides ensuring our students live each and every day at school thinking and learning about the environment and that we are all held responsible for the health of our planet. Our students develop a strong Sense of Place and

connectedness to the environment through their frequent and intense learning opportunities outside. In 2013, the program, Wise Young OWLS, which we are developing, should be finalized. It is based on the MN Environmental Education standards. Each year, students will be expected to demonstrate age-appropriate literacy in environmental and sustainability concepts, culminating in a certification by 4th grade.

15. Page Fifteen

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

16. Page Sixteen

Thank you for submitting a Green Ribbon Schools application for Minnesota schools.

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

Your application will be reviewed along with all completed applications following the application deadline of February 22, 2012.

If you have any questions, please contact Minnesota's Green Ribbon Schools program coordinator, Jeff Ledermann.

Email Confirmation

Feb 20, 2012 20:39:19 Success: Email Sent to: susan.powell@isd197.org

17. Thank You!

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

Response Location

Region:	United States
Region:	CO
City:	Aspen
Postal Code:	
Long & Lat:	Lat: 39.155602, Long:-106.745399