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School Contact Information

School Name

Loveland High School

Street Address

1 Tiger Trail

City

Loveland

State

Ohio

Zip

45140

School Website

Lovelandschools.org

Principal First Name

Molly

Principal Last Name

Moorhead

Principal Email Address

moorheme@lovelandschools.org

Principal Phone Number

513-683-1920

Lead Applicant First Name (if different from principal)

Tracy

Lead Applicant Last Name (if different from principal)

Burge

Lead Applicant Email

burgetr@lovelandschools.org

Lead Applicant Phone Number

513-683-1920 ext 3797

Level

High (9 or 10 - 12)

School Type

Public

How would you describe your school?

Suburban

District and Code

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

No

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Application form outline:

Weight:

PILLAR ONE: Net zero environmental impact

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 5points

Waste

Hazardous waste

Element 1D: Use of alternative transportation to, during, and from school 5 points

PILLAR TWO: Net positive impact on students and staff health

Element 2A: An integrated school environmental health program 20 points

Integrated Pest Management

Ventilation

Contaminant Controls

Asthma Control

Indoor Air quality

Moisture Control

Chemical Management

No Vehicle Idling

Element 2B: High standards of nutrition, fitness, and quantity of quality outdoor time 10 points

Fitness and Outdoor Time

Food/Nutrition

UV Safety

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

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

Element 3B: Use of the environment and sustainability to develop STEM content, knowledge, and thinking skills 10pts

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

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PILLAR ONE: Net zero environmental impact

You can choose to demonstrate progress towards elimination of GHG emissions and waste as well as water and energy conservation by completing one or more of the questions below, or by other methods (see final question).

Element 1A: Zero greenhouse gas (GHG) emissions

ENERGY

1. A. If you have received EPA's ENERGY STAR certification, in what year was the certification earned:

0

2. B. If you have reduced your total non-transportation energy use (i.e., electricity, lighting and temperature control) from an initial baseline, please provide:

Percentage reduction % : 34% \$480,000 reduction (see attached spread sheets)

Measurement unit used (kBTU/Square foot or kBTU/student) : Kwh/sq/ft

Time period measured : One year. Baseline of 2007 compared to 2011.

What documents can you provide to document this reduction? : See complete spreadsheets attached.

Are there any energy saving programs in place (such as student led programs)? : The district has installed motion sensors on all lights, low flow water restrictors and HVAC controls for day and night time settings. Please see attached Loveland School district " Energy Improvement Plan". The first of its kind in Ohio.

3. C. What percentage of your energy consumption is derived from?

On-site renewable energy generation: % : 0

Purchased renewable energy: % : 0

4. BUILDINGS

D. If you have constructed and/or renovated buildings in the past three years, what percentage of the building area meets Leadership in Energy and Environmental Design (LEED), Collaborative for High Performing Schools (CHPS), Green Globes or other standards?

What percentage? : N/A

What is the total constructed area? : N/A

What is the total renovated area? : N/A

Which certification did you receive and at what level (e.g. Silver, Gold, Platinum)? : N/A

5. E. What percentage of your total existing building area has achieved LEED Existing Buildings: Operation &

Maintenance, CHPS Operations, Green Globes or other standards?

What percentage? % : 0

What is the total building area? : 105,000 sq/ft

Which certification did you receive and at what level (e.g. Silver, Gold, Platinum)? : N/A

6. F. If you reduce or offset the GHG emissions from building energy use, please provide:

Change from Baseline: GHG Emissions (MtCO₂e)? : 34%

Time period? : Baseline of 2007 compared to 2011

Explain any offsets used? : Catalytic converters were retrofitted onto all buses reducing CO emissions by 50%. Reduction of wattage per bulb in schools from 32 to 28 has reduced emissions. Motion detectors on all lights to reduce coal emissions. See school website Energy Improvement Plan for more details.

Current Total GHG Emissions (MtCO₂e)? : see attached spreadsheets

7. G. Have you fully implemented the Facility Energy Assessment Matrix within EPA's Guidelines for Energy Management?

No

8. Has the school building been assessed using the Federal Guiding Principles Checklist in Portfolio Manager?

No

9. H. What percentage by cost of all your furniture purchases is certified under the Business and Institutional Furniture Manufacturers Association's "level" ecolabel? %

0 No purchases of furniture since 2000.

10. I. Is an energy- and water-efficient product purchasing and procurement policy in place?

Yes

11. J. Other indicators of your progress towards elimination of GHG emissions (describe in detail and include metrics if available):

See attached Energy Improvement Plan. First of its kind in Ohio. Along with reduction of emissions due to low flow faucets, motion detection light controls, HVAC pre set controls and reduction of wattage per bulb the district eliminated 2 boilers from the heating system. In addition heat exchange plates were used from the HVAC system to heat potable water and further reduce emissions.

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

Water use is a bigger issue in some regions of the country than others. Water should be conserved as much as possible and reused whenever possible, but a goal of zero use may not be realistic or even necessary in some areas.

A. If you can demonstrate reduced total water consumption intensity (measured in gal/square foot) from an initial baseline, please provide:

Percentage reduction? % : 59

Time period? : Baseline of 2007 compared to 2011.

What documents available to document this reduction if requested? : Usage documentation. See attached spreadsheet of water and sewer usage.

13. B. Have low-flow fixtures been incorporated into the facilities? (such as faucets, toilets, sinks)

yes

14. C. How often do you conduct audits of facilities and irrigation systems to ensure they are free of significant water leaks and to identify opportunities for savings?

The district uses manual operation on all irrigation systems to omit leakage when not in use. Water leak audits are ongoing inside the building.

15. D. Describe how your site grading and your irrigation system and schedule is appropriate for your climate, soil conditions, plant materials, and climate, with an emphasis on water conservation:

Manual operation of all irrigation systems omit unnecessary use of water. Irrigation only occurs when conditions deem necessary.

16. E. Do all your outdoor landscapes consist of water-efficient or regionally-appropriate (native species and /or adapted species) plant choices? Yes/No

Yes. No plantings or landscaping needs irrigation. Only athletic fields are irrigated and only when necessary, and then irrigation happens only at night. Reduction of 692,700 gallons per year was obtained by switching game football field to turf.

17. F. Are alternative water sources (e.g., grey water) used before potable water for irrigation?

Yes/No Describe

No

18. G. If drinking water is acquired from the school's own well, are your drinking water sources protected? Yes/No

Describe how they are protected:

N/A

19. H. Do you have a program to control lead in drinking water (including voluntary testing and implementation of measures to reduce lead exposure in drinking water) in place?

Yes/No Describe:

All water fountains have been replaced and updated to eliminate possibility of lead contamination. All water is city water that is tested every three years for lead content and has tested consistently below state standards.

20. I. Have you been cited within the past three years for failure to meet federal, state or local potable water quality standards?

No

21. J. Are all taps, faucets and fountains used for drinking and cooking cleaned on a regular basis to reduce possible bacterial and other contamination; and are faucet screens and aerators regularly cleaned to remove particulate lead deposits? Yes/No How often is such cleaning conducted?

Yes, daily.

22. K. Other ways you are working to improve water quality, efficiency, and conservation:

Environmental students have heightened the awareness of water usage of all students in our school. Environmental students petitioned to have the sale of water bottles banned in the school. The student body has been asked to use reuseable water containers to reduce the waste of water. Environmental students also educate other students about dumping out plastic water bottles before recycling so as not to lock water inside bottles. In class students evaluate their own water use and explore where they could make changes. Many students realize small changes they can make such as: turn off the water while they brush their teeth, or wash their car on the grass in their yard, or water thier yards at night.

23. GROUNDS

L. What percentage of your school grounds are devoted to ecologically or socially beneficial uses, including those that give consideration to native wildlife? (such as Bioswabs or Rain Gardens, etc.) Yes/no Describe:

A total of 55% of the school grounds are devoted to ecological or socially beneficial uses. The high school campus is comprised of 72 acres of land. Fifteen of the acres are dedicated to a woodlot lab, developing prairie, rain garden and secondary succession growth area. Walking paths and signage are planned for this area. We are presently applying for grants to help with this cost. Twenty five more acres are dedicated to athletic, and band practice fields.

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24. Element 1C: Reduced waste production

Waste

You can work towards elimination of all solid waste through reduced consumption, reuse practices and recycling.

A. What percentage of waste is diverted from the landfill or incinerator by reuse, composting, and/or recycling: (total amount reused, composted or recycled)/(total amount reused, composted or recycled used + total sent to a landfill or incinerator)

Last year environmental students implemented a very successful reduce and recycle initiative. This year we have further reduced our volume of trash through more compliance resulting in a total reduction of trash volume of 61% over two years. Students in the lunchroom stack trays and recycle plastic and glass bottles, cans and ziplock bags. Cafeteria employees not only recycle all recyclable material but also compost kitchen waste. Environmental students once a week collect all individual classroom, office and gymnasium area recyclables. This year we won the "Outstanding School Recycling Program Award" from Hamilton County. Please see "Oct 7th Power Point" and "Loveland Magazine" attachments for further details.

25. B. What percentage of total office/classroom paper content by cost is post-consumer material or fiber from forests certified as responsibly managed by the Forest Stewardship Council, Sustainable Forestry Initiative, American Tree Farm System or other certification standard? (If a paper is only 30% recycled, only 30% of the cost of that paper should be counted towards the recycled portion.)

0 We would like to use post consumer or TCF or PCF paper however our copy machines refuse to accept anything other than new copy paper.

26. C. What percentage of total office/classroom paper content by cost is "totally chlorine-free" (TCF) or "processed-chlorine-free" (PCF) :

0%

**27. D. Any procurement policies in place to encourage the purchase of recycled content materials, supplies or furniture?
Yes / No**

Please explain what type if yes or if no why.

No, however because of this application we are investigating possibilities.

28. Hazardous waste

Please answer all the questions below if possible regarding elimination of hazardous waste streams.

E. How much hazardous waste do you generate: lbs/student/year?

0

**29. Describe the types of hazardous waste, how hazardous waste is monitored and how the amount above is calculated.
Please list each hazardous waste and the amount of each present at the end of the year.**

No harsh cleaning chemicals are used in the building. Please see attachment. Science lab waste is neutralized in a neutralization pit where all chemicals used in labs are rendered non-hazardous over time by lime based chemical reactions. There is minimal biological waste that by law can be put in the regular stream of trash.

30. F. Is a Hazardous Waste Policy for storage, management and disposal of chemicals in laboratories and other areas with hazardous waste in place and actively enforced?

Yes

31. G. Have you been cited within three years for improper management of hazardous waste according to Federal and State regulations?

No

32. H. What percentage of total computer purchases by cost are Electronic Product Environmental Assessment Tool (EPEAT) certified products:

0%

33. How do you dispose of unwanted computer and other electronic products?

Forward Edge, an electronics recycling disposal company handles our e- waste and guarantees proper disposal and recycling of all e -waste.

34. I. What percentage by cost of all cleaning products in use are certified "green," or can otherwise demonstrate that they meet the environmental standards of established eco-label programs?

70%

35. Which standard(s) are you using?

Green Seal Certified

**36. J. Any procurement policies in place to encourage the purchase of "green" cleaning products? Yes / No
Please explain what type if yes or if no why.**

Yes Please see attached " Envirox". Hydrogen Peroxide, low toxicity cleaning technology and Critical Care disinfectant, fungicide and virucide.

37. K. Is your custodial program based in the principles of effective management and "green" service?

Yes

38. L. Has your custodial program been certified by the ISSA Cleaning Industry Management Standard - Green Building (or an equivalent standard):

No

39. M. Other indicators that you are reducing waste and eliminating hazardous waste

EC H2O Technology is being used to further reduce use of hazardous cleaning supplies.

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

A. What percentage of students walk, bike, bus, or carpool (2+ students in the car) to/from school:

41. Describe how this information been collected and calculated

Since 100% of our students must be bused calculation of students accepting transportation is relatively easy. Forty percent of our students ride a bus. Sixty percent then either drive, car pool, ride a bike or choose to walk.

42. B. Do you have a no-idling policy on file and signs posted stating that all vehicles, including school buses and other vehicles dropping off and picking up students, are limiting idling on school premises?

Yes

43. C. Are all vehicle loading & unloading areas at least 25 feet away from all building air intakes (including doors and windows)?

Yes

44. D. Describe how your school transportation use is efficient and environmentally benign (e.g. the percentage of school-owned electric/hybrid/alternative fuel vehicles or vehicles retrofitted with emission reduction or idle reduction equipment in your fleet, or other indicators of significant reductions in emissions):

All buses have been retro-fitted with catalytic converters through use of an EPA grant. Thirty percent of the fleet has cold weather engine block warmers to reduce need to idle all night during extremely cold weather. We have no idle zones in place to further protect our students and make our emissions as environmentally benign as possible. Please see Energy Improvement Plan attachment.

45. E. Have "Safe Pedestrian Routes" to school or "Safe Routes to School" been designated, distributed to parents and posted in the main office?

No

46. Describe any other accomplishments you've made under Pillar One towards eliminating your negative environmental impact or improving your environmental footprint which you feel should be considered:

We have had several different recycling campaigns. One of which Loveland High School placed third in the nation in cell phone collection and recycling (in conjunction with the Cincinnati Zoo). Students as part of the environmental science class are asked to call Duke energy to investigate ways they can reduce energy use at home. Students have investigated recycling facilities here

in Cincinnati so that they can take e-waste and other recyclables not accepted curbside to be recycled. Students have gone to Rumpke recycling facility as part of a grant awarded by Hamilton county for their recycling efforts. We received another grant from Hamilton county for school and community use. Purchase of permanent recycling collection bins for the sport facilities and outdoor fields and stadiums were a result of that grant. This fall students monitored compliance and researched placement of bins and how that affected compliance during games. Saturday mornings students would return to the football stadium to assist custodial staff with collection. As a result we have reduced the trash volume during spring and fall sport seasons by approximately 52%.

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PILLAR TWO: Net positive impact on student and staff health

Please answer all questions under Pillar Two

Element 2A: An integrated school environmental health program based on an operations and facility-wide environmental management system that considers student and staff health and safety in all practices related to design, construction, renovation, operations, and maintenance of schools and grounds

47. Integrated Pest Management

A. Do you have an integrated pest management plan in effect to reduce or eliminate pesticides?

Yes

48. B. Do you provide notification of your pest control policies, methods of application and requirements for posting and pre-notification to parents and school employees?

No

49. C. Do you maintain annual summaries of pesticide applications, copies of pesticide labels, copies of notices and MSDSs in an accessible location?

Yes

50. D. Do you prohibit children from entering the pesticide area for at least 8 hours following the application or longer, if feasible, or if required by the pesticide label?

Yes

51. Ventilation

E. Does your school meet the stricter of: ASHRAE Standard 62.1-2010 (Ventilation for Acceptable Indoor Air Quality) OR your state or local code? Yes/No Which one

Yes ASHRAE Standard 62.1-2010

52. F. Are local exhaust systems (including dust collection systems, paint booths, and/or fume hoods) installed at all major airborne contaminant sources, including science labs, copy/printing facilities, chemical storage rooms?

Yes

53. G. Have you installed energy recovery ventilation systems where feasible to bring in fresh air while recovering the heating or cooling from the conditioned air?

Yes

54. Contaminant Controls

H. Radon: Have all ground-contact classrooms been tested for radon within the past 24 months?

Yes

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

100%

56. I. Carbon Monoxide (CO): If you have combustion appliances, do you have an inventory of all combustion appliances & do you annually inspect these appliances?

Yes

57. Are CO alarms installed which meet the requirements of the National Fire Protection Association code 720?

Yes

58. J. Mercury: Have all unnecessary mercury-containing devices been replaced with non-mercury devices? Yes/No (Explain)

Yes. Replacement was completed ten years ago.

59. Do you recycle or dispose of unwanted mercury laboratory chemicals, mercury thermometers, mercury sphygmomanometers, gauges and other devices in accordance with federal, state and local environmental regulations?

Yes

60. K. Chromated Copper Arsenate (CCA): Have all wooden decks, stairs, playground equipment or other structures treated with Chromated Copper Arsenate been replaced or sealed within the past 12 months?

Yes

61. L. Secondhand Tobacco Smoke: Is smoking prohibited on campus?

Yes

62. M. Asthma Control: Do you have an asthma management program in place consistent with the National Asthma Education and Prevention Program's (NAEPP) Asthma Friendly Schools Guidelines?

Yes

63. N. Indoor Air quality: Have you developed and implemented a comprehensive indoor air quality management program consistent with IAQ Tools for Schools?

No

64. O. Moisture Control: Are all structures visually inspected on a regular basis and free of mold, moisture & water leakage?

Yes

65. Is indoor relative humidity maintained below 60% (cold climates during freezing temperatures should target 20-30%)?

Yes

66. Are moisture resistant materials/protective systems installed (e.g., flooring, tub/shower, backing, and piping)?

Yes

67. P. Chemical Management: Do you have a chemical management program in place that includes the following elements: -Chemical purchasing policy, including low- or no-VOC products

-Chemical inventory

-Storage and labeling

-Training and handling

-Hazard communication

-Spills, clean-up and disposal

-Select EPA's Design for the Environment - approved cleaning products

Yes/No/Explain

Yes Chemical Management Plan by Flinn.

68. Q. Describe any other measures regarding the school's built and natural environment that you take to protect student

and staff health and which you feel should be considered.

Everything we do is built or designed to provide top quality environmental conditions for our students. Carbon dioxide is the baseline from which all our quality control stems. Switching to non-chemical cleaners has resulted in a significant reduction in asthma attacks in the elementary building in particular. Although the link to this reduction has not been scientifically proven a drop in numbers of asthma attacks correlates directly to the date of change from harsh chemical cleaners to non-toxic cleaners.

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**69. Element 2B: High standards of nutrition, fitness, and quantity of quality outdoor time for both students and staff
Fitness and Outdoor Time**

A. What percentage of your students over the past year engaged in at least 150 minutes of school-supervised physical education and/or outdoor time per week?

80%

70. What is the average amount of time over the past year that each student engaged in school-supervised physical education and/or outdoor time per week? _____ minutes/week

260 minutes

71. B. Do you have outside classrooms or learning labs available? Yes/No If yes please describe

Yes, in physical education students are outside when weather permits. Students use the tennis courts, track or athletic fields. We also have about 15 acres of woods, prairie, rain garden and secondary succession on site and available and regularly used for learning labs.

72. Food

C. Have you earned USDA's HealthierUS School Challenge award for school food? Yes/No

List award level earned:

Yes , Bronze Award

73. D. What percentage (by cost) of food purchased is certified as environmentally preferable (e.g. Organic, Fair Trade, Food Alliance, Rainforest Alliance, etc.)?

100%

74. E. What percentage (by cost) of food purchased is grown and processed within 200 miles of the school (including food grown on school grounds)?

30.0%

75. Does the school have an on-site garden in which the students participate?

Yes

76. UV Safety

F. What percentage of your current student body has participated in EPA's Sunwise Program or an equivalent program?

100%

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

There are many pathways to achieving a 100% environmental and sustainability literacy rate. Please answer all of the questions below, and you may supplement this information by also describing alternative benchmarks of progress (see final question).

Learning and Environmental Literacy

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

77. A. What percentage of last year's graduates scored proficient or better during their high school career on state or school:

environmental education assessments? % : 95%

sustainability assessments? % : 95%

environmental science assessments ? % : 96%

78. Briefly describe the assessment(s):

All assesments were part of the environmental science curriculum and were chapter or unit tests and final exams.

79. B. Does your school or your state have an environmental or sustainability literacy graduation requirement? Yes/No Describe

No

80. C. Are environmental and sustainability concepts integrated throughout the curriculum? Yes/No Describe

Yes, Loveland high has a school wide recycle program that includes video annougements about recycling and other environmental facts, a lunch room recycling initiative and a classroom collection process. As a school wide effort we have engaged in two recycling contests one of which resulted in the " Outstanding School Recycling Program Award" from Hamilton County Recycling and Solid Waste District (see attachments) and another award (third place) in a nation wide cell phone recycling contest called "Go Bananas" in conjunction with the Cincinatti Zoo. Students district wide were also encouraged by community leaders to enter into a recycling poster contest as part of an effort to procure a grant for assistance with recycling efforts in the schools and community. A senior in our building won the contest; a small grant providing money for bus transportation to the Rumpke recycling facility was awarded to the environmental classes. A grant of \$25,000 was awarded to the city of Loveland for assistance with their city wide recycling efforts.

81. D. Is your curriculum aligned to the state science standards 2002 or 2010?

2010

82. E. What percentage of your eligible graduates last year had completed Advanced Placement Environmental Science during their school career?

0%

83. What percentage of these students scored 3 or better on the Advanced Placement Environmental Science assessment?

0%

84. F. If your school does not conduct environmental science, sustainability or environmental education assessments, what percentage of your students scored proficient or better on science education assessments in the last year?

96%

85. G. Are professional development opportunities in environmental and sustainability education available to all teachers at least every other year? Yes/No Describe a few of these opportunities.

Yes. Any teacher here at Loveland can take an environmental teacher workshop if they chose to do so. Some that are available this year include: Environmental Teacher Workshops 2012 Steve James@mohicanoutdoorschool.org

86. H. Does your environmental education curriculum pay particular attention to scientific practices, such as asking questions, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructing explanations, and engaging in argument and applications based on evidence:

Yes

87. I. Do your students have meaningful outdoor experiences (an investigative or experiential project that engages students in critical thinking, problem solving and decision making) at every grade level?

Yes

88. J. Are the sustainable elements of your building used as an educational opportunity? Yes/No If Yes, briefly describe.

Yes. As described above the environmental science students have made many educational videos covering several facets of environmental conservation for the student body. Students have stationed themselves near trash cans and recycling cans in the lunchroom in order to educate students how to process their lunch time recyclables. Students also, on a weekly basis, monitor compliance in recycling by "researching" the trash cans after lunch and brainstorming ways to increase compliance.

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

A. Do your students graduate with a robust general science education that includes a deep understanding of life, physical, and earth sciences?

Yes

90. Describe (e.g., percentages of enrollment in environmental sciences, earth sciences, biological sciences, statistics and post-secondary school or career-intended focus)

Biology 100% Environmental Science 56% Statistics 16%

91. B. Does your curriculum provide a demonstrated connection between classroom content and college and career readiness, particularly to post-secondary options that focus explicitly on environmental and sustainability fields, studies, and/or careers? Yes/No Describe.

Yes. Many careers and post-secondary options are explored as a part of the environmental science curriculum. There is a sixteen page appendix in the back of our text devoted to providing students with specific information on careers in environmental science. Students are asked to explore those careers as part of their environmental science course.

92. C. Does your curriculum provide any environmental focused career preparation, career-technical education programming, agricultural and environmental systems career field, college-level science or math course enrollment or specific science/math assessments? Describe.

Yes. Our environmental science classes make students aware of career opportunities and prepares them for those opportunities through their assignments, labs and research completed as part of the class. Also all students can enroll in post-secondary options of their choice while in high school.

93. Community and Civic Engagement

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

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

0%

94. B. Are your students required to conduct an age-appropriate civic/community engagement project around a self-selected environmental or sustainability topic at every grade level?

No

95. What percentage of students satisfactorily completed such a project last year?

0%

96. C. Do you partner with local academic, business, government, nonprofit, informal science institutions and/or other schools to help advance the school and community toward the 3 Pillars and/or assist the progress of other schools, particularly schools with lesser capacity in these areas? Yes/No

Briefly describe the scope and impact of these partnerships:

Yes. Eight students attended a meeting of the Loveland Board of Education and community members and presented a

powerpoint presentation that explained the research, facts, monetary savings and procedure that students had followed to test a recycling process for the high school. Students also presented goals for the future of recycling at Loveland (many of which have now been attained or surpassed). The meeting with the board and community members was well attended and controversial. My students were able to speak well and in the end convince the board and superintendent to support recycling at Loveland. Please see attached power point presentation. Students also wrote grants that resulted in money provided for busing to Rumpke recycling facilities. Please see Loveland magazine attachment. Loveland highschool environmental science students have a relationship with Rumpke recycling. Students regularly call Rumpke for information on recycling or to set up extra pick-up for our recycling dumpsters. Loveland environmental students have called local McDonald's, and Circle K's to ask that they stop using styrofoam cups. Students also called the local Best Buy to inquire what they do with the old T.V.'s that are collected by Best Buy as part of a community service. Students found that Best Buy collects the T.V.'s for parts and throws the unused portion in the trash. Students asked that Best Buy take the collected T.V.'s to 2TRG a local e-recycling facility and educated the managers on the ills of throwing T.V.'s and other e- waste away.

97. D. Do you have outdoor classrooms on your grounds which include native plantings and do you use them to teach an array of subjects in context, engage the broader community and develop civic skills?

Yes

98. What other indicators or benchmarks (quantified whenever possible) of your progress towards the goal of 100% of your graduates being environmental and sustainability literate do you feel should be considered?

Every science class at Loveland High includes four content standards that encourage students to be aware of science in the environment around them. These four standards strive to educate students in the latest and most pertinent scientific technologies and discoveries of our time. The four standards taught in every class include: Scientific Inquiry Science and Technology Scientific Ways of Knowing Life Sciences Each of these standards has an environmental component that can be and is expected to be applied to any science class taught at Loveland high. In doing so graduates should have environmental and sustainability literacy.

13. Page Thirteen

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.

14. Page Fourteen

Thank you for submitting an application to Ohio Green Ribbon 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 March 22, 2012.

If you have any questions, please contact Ohio's Green Ribbon Schools program via Brenda Metcalf at brendasmetcalf@aol.com

Email Confirmation

Mar 01, 2012 14:46:42 Success: Email Sent to: moorheme@lovelandschools.org

15. Thank You!

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

U.S. Department of Education
Green Ribbon Schools 2012

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

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

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

School Mailing Address 1 TIGER TRAIL
(If address is P.O. Box, also include street address.)

Loveland OHIO 45113
City State Zip

County Hamilton State School Code Number* TAX ID # 3108

Telephone (513) 683-1920 Fax (513)-677-7952

Web site/URL www.lovelandschools.org E-mail budget@lovelandschools.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.

M Moorhead Date 3.20.12
(Principal's Signature)

Name of Superintendent* DR JOHN MARSHHAUSEN
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name* LOVELAND CITY SCHOOLS Tel. (513) 784-6204

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.

Dr. John Marshhausen Date 3/20/12
(Superintendent's Signature)

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

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

Ohio Department of Education

Name of Nominating Authority

Mr. Jeremy Marks

(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.

Jeremy Marks
(Nominating Authority's Signature)

Date

3/22/12

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

Public Burden Statement

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

Summary of Achievements Loveland High School

Loveland High School is a solidly representative of our state's highest achieving green schools and is worthy of the title "U.S. Department of Education Green Ribbon School."

In the last two years, comprehensive programs have been initiated and implemented in the Loveland District that have resulted in a reduction of environmental impacts.

In order to reduce GHG emissions, our district implemented an Energy Improvement Plan and obtained six million dollars of interest-free financing, provided under ARRA. This deal was the first of its kind to be completed in Ohio and the sixth in the U.S. The capital raised was used to provide energy-efficient upgrades to buildings. Motion and infrared sensors were installed on lighting fixtures so they were automatically turned off and on in order to save energy. In addition light bulbs of 32 watts have been exchanged for bulbs of 28 watts. Infrared sensors were placed on HVAC systems to regulate heating and cooling and heating and ventilation upgrades were made; all reducing energy use and emissions. The economic savings in the first year equaled \$350,000 in energy cost and consequently energy use and this year the savings increased to \$480,000. By engaging in these emission reducing efforts the district demonstrated its commitment to the long-term health of students and staff and of the environment as well.

All buses have been retrofitted with catalytic converters through EPA Grants. These catalytic converters operate near a 90% efficiency rate, eliminating diesel fuel odor and reducing visible particulates. On 30% of our bus fleet, cold weather engine block warmers were installed. These warmers reduce the need to idle buses all night during extreme cold weather. *No idling zones* have been established to further reduce emissions and thereby hazardous conditions and health concerns for the student body.

In an effort to improve our water use efficiency and conservation, our district installed low flow faucets, reducing our water consumption by 59%. As a result we were able to eliminate 2 boilers. Most of our potable water is now heated using heat exchange plates in the HVAC system. The district also replaced our football field with artificial turf, reducing irrigation water use by 692,700 gallons per year. Irrigation, if used, is manually turned on and off according to weather conditions. No landscaping or grassy areas are watered, only athletic fields are irrigated.

Our district has reduced our contribution to the hazardous waste stream to 0 lbs per student per year. Lab chemicals are neutralized in a reduction pit below the lab facilities. In addition, harsh cleaning chemicals have been eliminated thereby significantly reducing asthma attacks in the student population.

The district is also initiating a "paperless school." Next year's seventh graders will be given electronic devices that will be used for most or all assignments through their senior year. This move will not only save paper but will also save energy used to transport paper to the school and energy used to produce copies of assignments for students.

Students will be increasing the size of our wildlife habitat by 5 acres this year in an effort reduce our initial habitat destruction during construction. As a result we will have 18 acres of woodland and prairie wildlife habitat.

Students have been at the forefront of initiation and implementation in school recycling programs. Last year students began a schoolwide recycling and trash reduction program that to date has reduced trash volume at the high school by 62%. As a result of their efforts the High School was awarded "Outstanding High School Recycling Program" by Hamilton County Recycling and Solid Waste District. In addition students are looking toward the future and endeavoring to make the cafeteria a "zero waste" facility by composting all non-recyclable waste. Students also participated in a cell phone recycling program called "Go Bananas" that was sponsored by Cincinnati Zoo. Loveland high school students recycled the third-largest number of cell phones in the nation.

Students have, in an effort to reduce household hazardous waste, researched avenues that can be taken to recycle televisions as analog units are replaced by flat screens. They have also called the local energy company to investigate ways to reduce their home energy use and some have convinced their parents to turn down the heat to save energy and reduce emissions. Many students have made the call themselves to the local recycling facility Rumpke to set up residential recycling pick-up if their family did not have the service. In addition students have made school video announcements, made posters or initiated conservation conversations, written newspaper articles and have been interviewed for such themselves, all in an effort to rally other students to engage in a, reduce, reuse and recycle philosophy.

The District engages in a comprehensive approach that promotes an environmentally friendly learning environment that encourages students to reach their highest potential. Because of this commitment and drive we are indeed worthy of the title U.S. Department of Education Green Ribbon School.



Paper Recycling Program

- Decorated cardboard boxes
- Delivered one box to each classroom
- Collect paper every Friday
- Collect twelve bags a week.

Ice Mountain Bins

- Decorated bins
- Donate cans to Special Ed Program

Lunchroom Waste: reduction and recycling. Getting Started...

- Rumpke Audits/Rumpke Meetings
- Posters, Volunteers, and Video Announcements
- Article in The Roar and in Loveland Magazine
- Collaboration with Custodial Staff

Lunchroom Program

Success!

Reduction in Trash Volume

- **Before Recycling and Stacking:** 60 bags of cafeteria trash a day.
- **After Recycling and Stacking:** 34 bags of cafeteria trash a day.
- 45% reduction volume



Total Savings Per Month

- Savings before purchase of recycling bin: \$264 a month
- Cost of Recycle bin: \$105 a month
- Total savings after recycling: \$159 a month



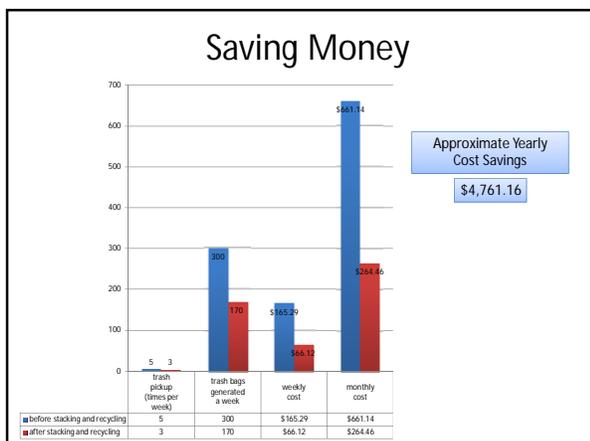
Recycling Costs

- Co-mingle bin: \$50/month
- Cardboard bin: \$55/month
- Total \$105/month




Future Savings

- Eliminate Rumpke's cardboard bin - Abitibi will pay us for cardboard.
- Save \$55/month.
- Total savings could be: \$196 a month

Efforts in the Loveland School district

- Programs going on in 4 out of 6 schools
- All schools have reduced volume by anywhere from 45% to 65%
- Other two schools will have programs going by Thanksgiving



Name/ Number of Judge Kelli Shrautberg
 Name of School Loveland HS
 Location of School Loveland, OH.

Date 3/15/12

Green Ribbon Pillar and Elements			Points
Cross Cutting Questions – 5 points			
Participation in Green School Programs and/or Awards for Environmental and Sustainability Efforts.			5 points
1 pt	2-3pts	4-5 pts	Total: <u>3</u>
School participates in a program that benchmarks progress	In addition, school has received one award. <i>Outstanding Recycl. Program - Hamleton Co.</i>	In addition, school has received more than one award and has achieved an advanced level of progress in at least one recognized program	
Pillar I: Environmental Impact and Energy Efficiency – 30 total points			
Goal: Net zero energy, carbon, water, waste, and hazardous waste impacts.			
Element IA: Improved energy conservation/energy-efficient building(s).			15 points
1-5 pts	6-10pts	11-15 pts	Total: <u>8</u>
School demonstrates some reduced energy use <i>+ 34% reduction + Energy Improvement Plan + Motion detectors = energy savings</i>	School has an Energy Star rating and an Energy Master Plan; demonstrates <u>substantial reductions in electricity and heating energy use</u> 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.	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 <i>substantial</i> amount of its remaining footprint; has received green building recognition at the Gold or higher for all new, renovated, and existing buildings.	
Element IB: Improved water quality, efficiency, and conservation			5 points
1 pt	2-3 pts	4-5 pts	Total: <u>4</u>
The school protects its water from contaminants; cleans its drinking water fountains and controls lead in drinking water. <i>59% Reduction Manual op. of irrigation @ night. turf field</i>	In addition, the school has smart irrigation and landscaping that is water-efficient; conducts annual water audits and controls leaks; installs <i>some</i> water-conserving fixtures and/or appliances (e.g. waterless urinals, dual-flush toilets, appliances); and can demonstrate a <i>modest</i> amount of reduction in water-use compared to baseline.	In addition, the school demonstrates a <i>substantial</i> amount of reduction in water-use compared to baseline; uses <i>only</i> alternative water sources for irrigation (e.g. gray water; rainwater harvesting); provides <i>only</i> water-efficient fixtures; and uses other creative measures for protecting and conserving water at the school site (e.g. bioswales for controlling runoff).	

Element IC: Reduced waste production and improved recycling and composting programs			5 points
1-2 pts	3-4 pts	5 pts	Total: 4
<p>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 <i>some</i> recycled content; uses <i>some</i> "third-party certified" cleaning products; and describes a few creative ways the school community practices the 4Rs.</p> <p><i>61% reduction 3rd Party e waste</i></p>	<p>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 <i>substantial</i> 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 <i>substantial</i> amounts of paper with recycled and chlorine-free content.</p>	<p>School also has made <i>substantial</i>, 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 <i>substantial</i> 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.</p>	
Element ID: Use of alternative transportation to, during, and from school			5 points
1-2 pts	3-4 pts	5 pts	Total: 4
<p>School has programs in place to promote more efficient and healthier transportation, including designated carpool stalls, <u>anti-idling policy</u>, <u>no loading/unloading near air intakes</u>; 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.</p>	<p>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.</p>	<p>In addition, school has alternative-fuel buses and other creative means of promoting alternative transportation.</p> <p><i>Buses retrofitted</i></p>	
<p>Pillar II: Healthy School Environments– 30% Goal: The school improves the health and performance of students and staff</p>			

Element IIA: An integrated school environmental health program				15 points
1-5 pts	6-10pts	11-15 pts	Total:	
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.	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.	School has completed everything in this section and uses an aggressive approach to eliminating environmental health and safety hazards (physical, biological, chemical, natural). <i>Switched to non-chemical cleaners</i>		12
Element IIB: High standards of nutrition, fitness, and quantity of quality outdoor time				15 points
1-5 pts	6-10pts	11-15 pts	Total:	
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.	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. <i>Bronze Award</i>	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.		13 <i>Bronze Award; USDA On Site Garden</i>
Pillar III: Environmental and Sustainability Education- 35%				
Goal: 100% of the school's graduates are environmentally and sustainability literate				
Element IIIA: Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems				20 points
1-5 pts	6-10pts	11-15	15-20	Total:
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.	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.	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	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	15 <i>Videos by Students</i>

School wide recycling program

		development opportunities annually.	grades; enrolls >5% of the school's eligible graduates in AP environmental science during their high school career.	
Element IIIB: Use of the environment and sustainability to develop Science, Technology, Engineering, and Mathematics (STEM) content, knowledge, and thinking skills				5 points
1-3 pts		4-5 pts		Total: 3
School <i>sometimes</i> integrates E/S into science courses; makes <i>some</i> connections to E/S careers; and provides <i>some</i> additional evidence about links to STEM.		School <i>frequently</i> integrates E/S concepts into STEM courses; curricula makes <i>many</i> 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.		EE Career exploration part of Envir. Sci course
Element IIIC: Development and application of civic engagement knowledge and skills				10 points
1-3 pts	4-7 pts	8-10 pts	Total: 6	
School has civic projects related to environment and sustainability in <i>some</i> grades; occasional meaningful outdoor learning experiences in a <i>few</i> grades; and a <i>few</i> community partnerships, perhaps only involving donations of funds/supplies.	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. <i>Presentation to Board of Ed</i>	School receives full credit when <i>all</i> grades have civic projects; when <i>all</i> grades have meaningful outdoor learning experiences; and when the <i>quality</i> and <i>quantity</i> of community partnerships <i>results</i> in sustainability advances at the <i>school, other schools and the wider community</i> . Higher points for inspiring and creative projects and partnerships.		
				100 points
				Total Given by Judge:

3

6

72

Name/ Number of Judge: Meera Parthasarathy

Date: 03/15/2012

Name of School: Loveland High School

Location of School: 1 Tiger Trail, Loveland, Ohio 45140

Green Ribbon Pillar and Elements			Points
Cross Cutting Questions – 5 points			
Participation in Green School Programs and/or Awards for Environmental and Sustainability Efforts.			5 points
1 pt	2-3pts	4-5 pts	Total: 1
School participates in a program that benchmarks progress	In addition, school has received one award	In addition, school has received more than one award and has achieved an advanced level of progress in at least one recognized program	
Pillar I: Environmental Impact and Energy Efficiency– 30 total points			
Goal: Net zero energy, carbon, water, waste, and hazardous waste impacts.			
Element IA: Improved energy conservation/energy-efficient building(s).			15 points
1-5 pts	6-10pts	11-15 pts	Total:5
School demonstrates some reduced energy use	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.	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 <i>substantial</i> amount of its remaining footprint; has received green building recognition at the Gold or higher for all new, renovated, and existing buildings.	The school has made significant energy improvements but has not, for some reason, completed the EnergyStar program which would be a good way to benchmark the progress.
Element IB: Improved water quality, efficiency, and conservation			5 points
1 pt	2-3 pts	4-5 pts	Total:5
The school protects its water from contaminants; cleans its drinking water fountains and controls lead in drinking water.	In addition, the school has smart irrigation and landscaping that is water-efficient; conducts annual water audits and controls leaks; installs <i>some</i> water-conserving fixtures and/or appliances (e.g. waterless urinals, dual-flush toilets, appliances); and can demonstrate a <i>modest</i> amount of reduction in water-use compared to baseline.	In addition, the school demonstrates a <i>substantial</i> amount of reduction in water-use compared to baseline; uses <i>only</i> alternative water sources for irrigation (e.g. gray water; rainwater harvesting); provides <i>only</i> water-efficient fixtures; and uses other creative measures for protecting and conserving water at the school site (e.g. bioswales for controlling runoff).	Very impressive water reduction program in place not only by staff but also by students

Element IC: Reduced waste production and improved recycling and composting programs			5 points
1-2 pts	3-4 pts	5 pts	Total:4
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 <i>some</i> recycled content; uses <i>some</i> “third-party certified” cleaning products; and describes a few creative ways the school community practices the 4Rs.	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 <i>substantial</i> 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 <i>substantial</i> amounts of paper with recycled and chlorine-free content.	School also has made <i>substantial</i> , 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 <i>substantial</i> 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.	The applicant demonstrates a very knowledgeable and aggressive push towards sustainable school goals. Would have got all five points if it purchased recycled content paper/ products (easily available).
Element ID: Use of alternative transportation to, during, and from school			5 points
1-2 pts	3-4 pts	5 pts	Total:3
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.	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.	In addition, school has alternative-fuel buses and other creative means of promoting alternative transportation.	Points given for anti-idling policy and retrofitted buses. Needs more information on ways school is trying to improve pedestrian-friendly access to the school.
Pillar II: Healthy School Environments– 30%			
Goal: The school improves the health and performance of students and staff			
Element IIA: An integrated school environmental health program			15 points

1-5 pts	6-10pts	11-15 pts	Total:14	
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.	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.	School has completed everything in this section and uses an aggressive approach to eliminating environmental health and safety hazards (physical, biological, chemical, natural).	Meets all objectives in this section other than the notification for pesticides and a comprehensive IAQ plan.	
Element IIB: High standards of nutrition, fitness, and quantity of quality outdoor time			15 points	
1-5 pts	6-10pts	11-15 pts	Total:15	
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.	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; <i>some</i> food purchased is certified organic; food from school garden is eaten by students.	School also purchases a <i>substantial amount</i> 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.	Very impressive demonstration of this sections' objectives.	
Pillar III: Environmental and Sustainability Education– 35%				
Goal: 100% of the school's graduates are environmentally and sustainability literate				
Element IIIA: Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems			20 points	
1-5 pts	6-10pts	11-15	15-20	Total:11
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.	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.	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	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 <i>all</i> grades; enrolls >5% of the school's	The school demonstrates that it provides community learning opps for students esp. for recycling programs. Also Mentioned students water use reduction program earlier in app. Only comment is that since the school undertook an aggressive energy use reduction, could

		annually.	eligible graduates in AP environmental science during their high school career.	expand learning opps for students in such other areas. No ES AP program.
Element IIIB: Use of the environment and sustainability to develop Science, Technology, Engineering, and Mathematics (STEM) content, knowledge, and thinking skills				5 points
1-3 pts		4-5 pts		Total:4
School <i>sometimes</i> integrates E/S into science courses; makes <i>some</i> connections to E/S careers; and provides <i>some</i> additional evidence about links to STEM.		School <i>frequently</i> integrates E/S concepts into STEM courses; curricula makes <i>many</i> 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.		Only thing lacking is ES AP programs
Element IIIC: Development and application of civic engagement knowledge and skills				10 points
1-3 pts	4-7 pts	8-10 pts	Total:9	
School has civic projects related to environment and sustainability in <i>some</i> grades; occasional meaningful outdoor learning experiences in a <i>few</i> grades; and a <i>few</i> community partnerships, perhaps only involving donations of funds/supplies.	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.	School receives full credit when <i>all</i> grades have civic projects; when <i>all</i> grades have meaningful outdoor learning experiences; and when the <i>quality</i> and <i>quantity</i> of community partnerships <i>results</i> in sustainability advances at the <i>school, other schools and the wider community</i> . Higher points for inspiring and creative projects and partnerships.		
				100 points
				Total Given by Judge: 71

Name/ Number of Judge Sue Wintering

Date 03/16/2012

Name of School Loveland HS

Location of School _____

Green Ribbon Pillar and Elements			Points
Cross Cutting Questions – 5 points			
Participation in Green School Programs and/or Awards for Environmental and Sustainability Efforts.			5 points
1 pt	2-3pts	4-5 pts	Total: 4
School participates in a program that benchmarks progress	In addition, school has received one award	In addition, school has received more than one award and has achieved an advanced level of progress in at least one recognized program	
Pillar I: Environmental Impact and Energy Efficiency– 30 total points			
Goal: Net zero energy, carbon, water, waste, and hazardous waste impacts.			
Element IA: Improved energy conservation/energy-efficient building(s).			15 points
1-5 pts	6-10pts	11-15 pts	Total:10
School demonstrates some reduced energy use	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.	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 <i>substantial</i> amount of its remaining footprint; has received green building recognition at the Gold or higher for all new, renovated, and existing buildings.	
Element IB: Improved water quality, efficiency, and conservation			5 points
1 pt	2-3 pts	4-5 pts	Total:3
The school protects its water from contaminants; cleans its drinking water fountains and controls lead in drinking water.	In addition, the school has smart irrigation and landscaping that is water-efficient; conducts annual water audits and controls leaks; installs <i>some</i> water-conserving fixtures and/or appliances (e.g. waterless urinals, dual-flush toilets, appliances); and can demonstrate a <i>modest</i> amount of reduction in water-use compared to baseline.	In addition, the school demonstrates a <i>substantial</i> amount of reduction in water-use compared to baseline; uses <i>only</i> alternative water sources for irrigation (e.g. gray water; rainwater harvesting); provides <i>only</i> water-efficient fixtures; and uses other creative measures for protecting and conserving water at the school site (e.g. bioswales for controlling runoff).	

Element IC: Reduced waste production and improved recycling and composting programs			5 points
1-2 pts	3-4 pts	5 pts	Total:5
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 <i>some</i> recycled content; uses <i>some</i> “third-party certified” cleaning products; and describes a few creative ways the school community practices the 4Rs.	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 <i>substantial</i> 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 <i>substantial</i> amounts of paper with recycled and chlorine-free content.	School also has made <i>substantial</i> , 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 <i>substantial</i> 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.	
Element ID: Use of alternative transportation to, during, and from school			5 points
1-2 pts	3-4 pts	5 pts	Total:5
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.	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.	In addition, school has alternative-fuel buses and other creative means of promoting alternative transportation.	
Pillar II: Healthy School Environments– 30%			
Goal: The school improves the health and performance of students and staff			

Element IIA: An integrated school environmental health program				15 points
1-5 pts	6-10pts	11-15 pts	Total:14	
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.	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.	School has completed everything in this section and uses an aggressive approach to eliminating environmental health and safety hazards (physical, biological, chemical, natural).		
Element IIB: High standards of nutrition, fitness, and quantity of quality outdoor time				15 points
1-5 pts	6-10pts	11-15 pts	Total:15	
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.	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; <i>some</i> food purchased is certified organic; food from school garden is eaten by students.	School also purchases a <i>substantial amount</i> 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.		
Pillar III: Environmental and Sustainability Education– 35% Goal: 100% of the school's graduates are environmentally and sustainability literate				
Element IIIA: Interdisciplinary learning about the key relationships between dynamic environmental, energy, and human systems				20 points
1-5 pts	6-10pts	11-15	15-20	Total:15
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.	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.	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	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 <i>all</i>	

		development opportunities annually.	grades; enrolls >5% of the school's eligible graduates in AP environmental science during their high school career.	
Element IIIB: Use of the environment and sustainability to develop Science, Technology, Engineering, and Mathematics (STEM) content, knowledge, and thinking skills				5 points
1-3 pts		4-5 pts		Total:5
School <i>sometimes</i> integrates E/S into science courses; makes <i>some</i> connections to E/S careers; and provides <i>some</i> additional evidence about links to STEM.		School <i>frequently</i> integrates E/S concepts into STEM courses; curricula makes <i>many</i> 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.		
Element IIIC: Development and application of civic engagement knowledge and skills				10 points
1-3 pts	4-7 pts	8-10 pts	Total:3	
School has civic projects related to environment and sustainability in <i>some</i> grades; occasional meaningful outdoor learning experiences in a <i>few</i> grades; and a <i>few</i> community partnerships, perhaps only involving donations of funds/supplies.	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.	School receives full credit when <i>all</i> grades have civic projects; when <i>all</i> grades have meaningful outdoor learning experiences; and when the <i>quality</i> and <i>quantity</i> of community partnerships <i>results</i> in sustainability advances at the <i>school, other schools and the wider community</i> . Higher points for inspiring and creative projects and partnerships.		
				100 points
				Total Given by Judge: 79