



2013-2014 School Nominee Presentation Form

PART I - ELIGIBILITY CERTIFICATION

School and District's Certifications

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

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



U.S. Department of Education Green Ribbon Schools 2013-2014

[] Charter [] Title I [] Magnet [] Private [] Independent

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

Official School Name Lake Region Union High School
(As it should appear on an award)

School Mailing Address 317 Lake Region Road
(If address is P.O. Box, also include street address.)

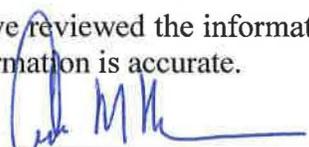
Orleans, VT 05860
City State Zip

County Orleans State School Code Number* PS157

Telephone (802) 754-6521 Fax (802) 754-2780

Web site/URL www.lruhs.org E-mail andremessier@ocsu.org

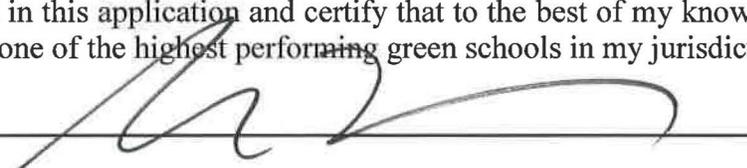
I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

 Date 1/17/14
(Principal's Signature)

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

District Name* Lake Region Union HS District #24, Orleans Central Supervisory Union
Tel. (802) 525-1204

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

(Superintendent's Signature) 

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

LAKE REGION UNION HIGH SCHOOL

317 LAKE REGION ROAD * ORLEANS, VT 05860
TEL. (802) 754-2500 * FAX: (802) 754-2780 * www.lruhs.org

ANDRE M. MESSIER
Principal

ERIC DEGRE
Assistant Principal

TAMI DEVOST
Administrative Office Manager

ALICE RANIERI
Administrative Secretary

GREEN RIBBON SCHOOLS APPLICATION – PRINCIPAL’S NARRATIVE

What began in 2010 as a hope to reduce Lake Region Union High School’s electricity consumption by ten percent in the face of a sharp increase in the school’s overall energy consumption and rising energy costs, has turned into a school-wide focus covered by the three Pillar areas that structure the *Green Ribbon Schools* program and results far exceeding the school’s initial goal. Those efforts were recognized this fall when Lake Region Union High School was awarded *Energy Star* status by the U.S. Environmental Protection Agency, which meant that the school had “created a healthy learning and working environment, and is a good steward of taxpayer and environmental resources.”

The most visible and quantifiable success of our work has been the sustained reduction in the consumption of oil and electricity. Lake Region reduced its electrical consumption from an all-time high of nearly 456,000 KWH in FY’10 to pre-2004 levels of 301,000 KWH used last year, a reduction of 34%. That facilities work and changes in management has also seen an annual decrease in its oil consumption as measured by gallons/heating degree day from 3.28 in FY’10 to 2.59 last year, a decrease of 21%.

Focusing on data (usage, cost-benefit analysis, estimated payback, etc...) has been critical in establishing a comprehensive and continuous facilities improvement plan by the school’s Green Team, which has been supported by the Board in approving requested facilities improvements. Everything done has been a result of analysis of data and has changed our building’s culture. Before, we simply paid the bill. Now, we are all paying more attention to the numbers and our practices, and asking questions. That is the best part – it has changed how we think.

One might think that the analysis of data is an adult practice. As the principal, this is an area that I am most excited about as the students through their class work have been instrumental in not only the gathering and analyzing of data, but also have proposed several of the implemented improvements and continue to develop potential future options through their work in specific classes and as members of the Green Team. An added bonus to our new found data vigilance was a discovery last year that our school and others in our supervisory union had been over-charged by the local utility dating back to 1999, which resulted in total reimbursements of over \$20k to the schools.

The *Green Ribbon Schools* program third pillar is focused on environmental and sustainability curriculum. The area in which Lake Region Union High School is situated in a rural region dominated by mountains, rivers, lakes, and trees, and its upkeep and stewardship are critical to the region’s activities and economic viability. The school has always played an instrumental role in educating the region’s youth about the greater importance of understanding of the environment around them and the consequences of neglect and abuse of its resources. Freshman earth science and sophomore biology utilize the school’s 100 acres of woods, streams, and ponds, as well as the region’s natural resources for focused and applied learning. Juniors and seniors in physics, as part of their curriculum, play an active role in the data analysis and creation of blueprints for recommended changes mentioned earlier. In other projects, some students heading towards engineering programs worked with one of our science teachers, who specializes in alternative energy resources, to build solar powered units for all of our exterior athletic score boards.

Lake Region’s agriculture program in recent years has changed its focus from dairy to sustainable agriculture and stewardship. The program maintains and operates a greenhouse and over an acre of vegetable garden, which produces food used in the school’s cafeteria. A new partnership with the Center for an Agricultural Economy will allow our students to use the facility to process some of the produce in a manner to be used during the winter months. This fall, we planted an apple and pear orchard on campus, which will soon bear fruit for the school and provide a great continuous learning opportunity and lab for our students. We have also secured a grant to fully fund a large scale enclosed composting system on site this spring. This will allow us to adequately use our cafeteria food scraps and will serve as another learning lab and produce a byproduct that will be able to be used in our school’s food producing ventures.

Our entire community is proud of the recognitions we have received and of the efforts and direction that the school has undertaken with regard to energy efficiency, the well-being of our students, and the increased focus on sustainability education and practices. We would be honored to be identified as an *ED - Green Ribbon School*.

Respectfully Submitted by:
Andre M. Messier, Principal
Lake Region Union High School



120 State Street, Montpelier VT 05620-2501
(p) 802-828-3135 | (f) 802-828-3140

STATE OF VERMONT EVALUATION OF NOMINEE #3

LAKE REGION UNION HIGH SCHOOL (LRUHS) - DISADVANTAGED

Located in Vermont's low-income, rural Northeast Kingdom, 350-student Lake Region Union High School is home to a dedicated staff of educators who also run organic farms, research accelerated composting methods, design and install solar power systems, and lead collaborative projects on forest sustainability and environmental awareness, sharing and instilling their passions with students via rich and rigorous curricula. At the same time, data-driven facility upgrades are at the forefront of LRUHS's accomplishments as a VT Green Ribbon School nominee.

Pillar #1: Score 75%

The Principal's narrative covers LRUHS achievements in Pillar One very well; I won't repeat it. There was an Aha Moment when staff and students collectively "got it": During spring break, electrical and lighting upgrades were completed on campus and a real-time eGauge was installed in the lobby to spotlight electrical usage 24/7. At a school-wide assembly at the end of the vacation, graphs reflecting "before" power usage were explained, followed by "after" data showing the immediate effect of a week's worth of upgrades. The readings from the new eGauge were put up on the big screen – and then the principal turned off the lights. 100% of building occupants simultaneously watched the gauge go down, dramatically illustrating the value of pulling down a light switch.

Pillar #2: Score 68%

Students and staff benefit from an expanded fitness room and open gym time, and more than 50% of physical education classes are held outdoors. LRUHS actively controls (prohibits) vehicle idling and the use of toxic pesticides, and the facility is monitored for radon, mold, lead, and carbon monoxide. A healthy environment is also encouraged through the prohibition of the sale of high-fat food and sugary drinks, comprehensive recycling and composting programs and the use of environmentally-preferable cleaning products.

Pillar #3: Score 69%

Management of an onsite orchard with a community advisory board including an arborist, forester, and other agriculture professionals is a hallmark of the school's Agriculture Program. Using the school campus as its lab, a physics class conducted a building analysis and produced a 53-page report detailing the impacts of facility improvements, outlining the cost/benefit case for further upgrades, and providing a framework which successive physics classes have built upon. Each incoming class is challenged to identify and justify more and more student-driven ways to save energy via facility upgrades and behavior modification programs to make their school as sustainable as possible on its tight budget. STEM education at LRUHS is an award-winning blend of Yankee ingenuity, engaged and enthusiastic educators, and community support.

Disadvantaged: Our state criterion for identifying applicants as "disadvantaged" is student eligibility for Free and Reduced-Price Lunch. LRUHS is confirmed at having 59% FRPL.

#end



PART II – SUMMARY OF ACHIEVEMENTS

Instructions to School Principal

Provide a concise and coherent "snapshot" that describes how your school is representative of your jurisdiction's highest achieving green school efforts in approximately 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.

PART III – DOCUMENTATION OF STATE EVALUATION OF NOMINEE

Instructions to Nominating Authority

The Nominating Authority must document schools' high achievement in each of the three ED-GRS Pillars and nine Elements. For each school nominated, please attach documentation in each Pillar and Element. This may be the Authority's application based on the Framework and sample application or a committee's written evaluation of a school in each Pillar and Element.

Nominating Authority's Certifications

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

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

Name of Nominating
Agency

VERMONT AGENCY OF EDUCATION

Name of Nominating
Authority

Ms. Catherine M. Hilgendorf

(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

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



school meets the provisions above.

CM Hilgendorf
(Nominating Authority's Signature)

Date 1-29-14

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

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

Public Burden Statement

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

- [View Summary](#)
- [Browse Responses](#)
- [Filter Responses](#)
- [Crosstab Responses](#)
- [Download Responses](#)
- [Share Responses](#)

Default Report

Displaying 9 of 15 respondents

<p>Response Type: Normal Response</p> <p>Custom Value: <i>empty</i></p> <p>Response Started: Friday, November 15, 2013 3:45:24 PM</p>	<p>Collector: VT ED-GRS 2014 Application (Web Link)</p> <p>IP Address: 71.169.178.203</p> <p>Response Modified: Wednesday, November 20, 2013 11:44:19 AM</p>
--	---

1. Vermont School Name and Address

School Name: - Lake Region Union High School

Address: - 317 Lake Region Road

City/Town: - Orleans

ZIP: - 05860

Email Address: - andremessier@ocsu.org

Phone Number: - 802-754-6521

2. School Principal :

Name: - Andre M. Messier

Phone: - 802-754-6521

Email Address: - andremessier@ocsu.org

3. Primary Contact Name (if different):

No Response

4. Primary Contact Phone:

802-754-6521

5. Primary Contact Email:

andremessier@ocsu.org

6. School Type

Public

7. School Level:

High (9 or 10-12)

8. Enrollment Information:

Total School Enrollment: - 346

School District Name: - Orleans Central Supervisory Union

School District Total Enrollment: - 1050

9. Total District Enrollment:

1050

10. Does your school serve 40% or more students from disadvantaged households (40% Free or Reduced-price Lunch (FRPL) eligibility)

Yes

11. What is the % of students receiving FRPL?

59

12. Please provide a 500-word maximum narrative describing your school's efforts to reduce environmental impact and costs; improve student and staff health; and provide effective environmental and sustainability education. Focus on unique and innovative practices and partnerships. This is your chance to put your "best foot forward" and highlight your most stand-out "green" accomplishments.

Lake Region Union High School's efforts became more focused in 2010 when Norm Etkind shared an electrical usage graph. As we were building the budget, it was noticed that energy expenses and electrical consumption had increased by 50% over the previous three year period. The principal approached the School Board about accessing over \$200,000 in capital reserve funds that had been set aside, but unused for several years, for building improvements. Armed with a master maintenance plan and timeline created by the Principal and the Building Maintenance Supervisor and aimed at reducing consumption and costs in the 40+ year-old building, the Board approved the access of the capital reserve. Each step of the plan has been data-driven with cost estimates and estimated payback periods. The plan has unfolded in this manner: Reconfigurations to the kitchen's refrigeration and to the school's hot water systems, and the replacement of the west-facing windows in the academic wing during the summer of 2010; replacement of the gym lights during April of 2011; replacement of all exterior lights, east-facing windows in the academic wing, and all lobby windows, as well as updates to the school's heating system during the summer of 2011. The school has installed 109 new double-glazed insulated windows and 2 new thermal overhead doors to replace original single pane aluminum framed windows and leaky wooden overhead doors. The 9 wall-mounted exterior lights and the 13 parking lot lights were replaced with LEDlights and placed most of the lights on motion activated sensors. Daylight sensors have been installed in the 16 east-facing classrooms which sense the natural light in the room and automatically shut down banks of lights closer to the windows. Motion sensors have been installed in the 8 student bathrooms, all utility and maintenance closets, the teacher's dining room, and the conference room. The gym had its lights changed which utilize less than 50% of the electricity as the old ones. Also they have been rewired from an "all on/off" switch to six different settings so it is possible to limit the usage based on need and allow for natural light coming through three skylights to be factored into the need. In the summer of 2012, the school retrofitted the entire school with more energy efficient lighting. An efficient burner was installed on one of the old boilers, and two new smaller boilers will be installed to allow for staged delivery of heat. Three variable speed pumps have been installed to replace old single speed pumps. The heating system is now automated and the temperature controls include outside air temperature sensors which have increased our heating efficiency. The school hired a certified plumber to replace the retiring maintenance man. He has done all of the heating/plumbing retrofitting which has saved the school upwards of \$75,000. Student built solar units were used to power the three new athletic scoreboards. The school has reduced its oil consumption by 20% (5,000 gallons) and reduced its gallons/HDD from 3.27 to 2.59. Electrical consumption has decreased by over 30%.

13. Has your school, staff or student body received any awards for facilities, health or environment?

Yes, please list award(s) and year(s) achieved: - 2012 - Whole School Energy Challenge - 1st Place 2013 - Whole School Energy Challenge - 1st Place 2013 - Recognized as a Vermont Energy Star School

14. Can your school demonstrate a reduction in energy use for space heating?

Yes

2010 - 2012; Heating Oil; 25,100 gallons to 19,004 gallons; 3.27 gallons/HDD to 2.59 gallons/HDD

15. What was the before and after use for electricity during the time period identified in question 14?

Before kWh/year - 455,840

After kWh/year - 301,760

16. What type of fuel is used for water heating (if not included with space heating fuel)

No Response

17. Please describe student involvement in the reduction of any type of fuel use (be specific). Max. 300 words.

Lake Region has an established student-led recycling program and the newly formed Green Team is comprised of administration, teachers, students, and maintenance personnel. Currently, there are 8 students on it. These students are active in helping the school become more energy efficient. Freshmen students find their carbon footprints as part of their curriculum. The Honors Physics students have a three-week unit on energy efficiency and have performed studies of the school and its components, using kWh meters and IR thermometers among other devices to provide data supported recommendations to the School Board. Our electric consumption live graph is used to help everyone (students, staff & community) understand how the changes have benefited us so far. At our annual school meeting, the public has been able to see a composite information sheet showing overall savings. The school has an electric vehicle class which designs, plans, and builds an electric vehicle. Two years ago, students built a solar panel power system to run our scoreboard on the baseball field, and two other systems were being built last year for the lower athletic fields. Our Upward Bound students designed a green house as part of a competition that could be installed on the roof of our offices. Lake Region's Green Team has and will continue to lead the school's effort. In the future, the Green Team will be meeting once a week, and students will lead most of the efforts of energy reduction as the school moves towards a "habits of change" movement. There is value both educationally and in terms of actual money in this work. As students leave the school they will have a better understanding of energy efficiency, and as projects are finished, the school's energy bills will be continually driven down. The gym used to have 12 skylights (3 still exist). The Honors Physics students will be researching the energy efficiency of reinstalling the skylights and angling them to the south to save lighting costs. They have also proposed to the School Board the installation of sky-tubes to provide natural lighting for areas of our building (hallways) that rely solely on electrical lighting. A second proposition has been the installation of solar heat air exchange on the south facing wall of the gym. Students this year are building a scale model to gather further data for the Board on its viability.

18. Has your school received an Energy Star rating using Portfolio Manager?

Yes, what was the rating: - 97

19. Describe any quantifiable energy impacts on building as a result of changing student enrollment over past 10 years, including conscious steps taken to consolidate for optimum efficiency. (max. 30 words)

None

20. Has your school participated in energy-efficiency programs through Efficiency Vermont?? Examples: RELIGHT design program, Whole School Energy Challenge, lighting retrofit rebates

Yes, please list program(s) date(s), results of each, and any rebates received. - Whole School Energy Challenge - Pilot School - 1st Place in 2012 & 2013 HE Boilers and Controls (2012); Project Cost - \$17,700; Est payback 1.5 years; rebate - \$3,000 Motion Sensors installed in closets, bathrooms, & low-use areas (2012); rebate - \$460 Building Light Retrofit (2012); Project Cost - \$34,208; Est payback 6.4 years; rebate - \$6,150 HVAC update (2012); rebate - \$2,250 Classroom Light Sensors (2012); Rebate - \$1,400.02 Lighting (2011); Rebate - \$1,060 Parking Lot Lights to LED and Motion sensors (2011); Project cost - \$14,000; rebate - \$4,715 Gym Light Replacement (2011); Project Cost - \$7,700; Est Payback 2.7 years; rebate - \$3,000

21. Has your school had an Energy Assessment from the Vermont Superintendents Association's School Energy Management Program (SEMP) within the last three years?

Yes

22. Has the school implemented any of the following measures as recommended by SEMP?

	Yes	No
Lighting retrofit	X	
Building envelope improvements	X	
Upgrades to building system controls	X	
Heating plant improvements	X	
Created a written Facilities Operating Plan	X	

Other : Using capital reserve funds, we have also replaced all 109 windows (single-pane glass & aluminum frame) to double-pane insulated glass with insulated frames in efforts to secure envelope.

23. What other energy efficiency programs or benchmarks has your school participated in? Please list: Name of Program, Year(s), and score(s) or award received.

None

24. Does your school use any on-site renewable energy? (ex: solar, geo-thermal, wind)

Yes. Please list type of on-site renewable energy? - solar

25. What percentage of your school's energy is obtained from this on-site renewable energy generation?

Less than 1%

26. Does your school use purchased renewable energy? (ex: wood chips, wood pellets, purchased solar power)

No

27. What percentage of your school's total energy used is obtained from the purchased renewable energy source(s)? (Include clarifying info as needed.)

None

28. Has your school district constructed or renovated building(s) in the past ten years?

No

29. If Yes, Has your school been built or renovated in accordance with LEED standards or NE-CHPS certification protocol?

No Response

30. Does your school building include the following "green" features/components?

	No	Yes
Operable room occupancy sensors		X
Vend-misers installed on vending machines	X	
High performance T8 lamps and electronic ballasts		X
HVAC ductwork is externally insulated and is cleaned following extensive renovations		X
Stoves/ovens, coffeemakers, refrigerators, and portable electric heaters are prohibited from classrooms		X
Fossil fuel powered mobile machinery is not used inside the building	X	
Daylight-maximizing features such as light shelves, clerestory windows, skylights,		X
Walk-off mats, grates, and grills at all active entrances, including playground-to-classroom entrances		X
At least 90% of building is not air-conditioned		X
Variable frequency drives		X
Heat/energy recovery ventilation		X
Other (please specify):		

31. How often are HVAC filters replaced?

Semi-annually

32. Are alternate water sources used for irrigation (i.e. watering of grounds, fields, and gardens)? Please choose all that apply

Rainwater harvesting

33. Is the drinking water source protected from potential contaminants, including lead?

The well cap is locked. We have a source pollution plan as required by the state. Lead testing is done every year.

34. Chromate copper arsenate is most often found in pressure-treated wood. Has your school identified and removed any wood playground, bleachers, or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure?

Yes

35. Does your school operate a composting program for food and landscaping waste?

Yes

36. Does your school operate a recycling program for:

	No	Yes
Classroom and office paper		X
Plastics		X
Other		X
Comments:		

37. Has your school implemented any of the following transportation elements?

	No	Yes
Designated carpool parking stalls and secure bicycle storage.		X
Carpools or vanpools for sporting events		X
A well-publicized no idling policy that applies to all vehicles (including school buses)		X
Enforcement of the VT State Board of Education Rule 6000 prohibiting bus idling on school grounds		X
Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows		X
An efficient transportation plan designed to reduce its environmental impact		X
Become a partner with Vermont Safe Routes to School (if yes, please indicate current level of partnership in the comments section below)		X
Comments (please limit to 80 words):		

38. Is the school building regularly tested for radon gas?

Yes

39. Is the school building regularly tested for mold?

Yes

40. Is the school building equipped with carbon monoxide (CO) monitors/alarms?

Yes

41. Does the school nurse encourage parents to use the Vermont Asthma Action Plan?

Yes

42. Has your school enrolled in Vermont Dept. of Health's Envision Program?

No

43. Vermont green cleaning legislation took effect 7/1/12. Has your school informed staff of the requirement to use "environmentally preferable cleaning products" as described in Vermont Dept. of Health's Envision Program?

Yes

44. What percentage of all cleaning products ON HAND as of 9/1/2013 were certified as environmentally-preferable?

95

45. What is your school's procurement method for cleaning products?

FMDA buyers group

46. Describe any unique or innovative policies, practices, and/or partnerships that protect and/or promote improved environmental health for students and/or staff. (100 words max)

No poisons are used inside or outside for pests. insects, and/or weeds - window stickers for insects, traps for mice, white vinegar for weeds.

47. Does your school have an active School Health Team or Coordinated School Health Team?

No (go to question #49)

48. If you answered Yes to Question #47, has your School Health Team or Coordinated School Health Team used the School Health Index to conduct self-assessment and planning?

No Response

49. Does your school have an active School Wellness Policy that is implemented, monitored, and evaluated on a regular basis?

Yes - Please email the policy to lindsay.simpson@state.vt.us or list web link in the box below - Will mail.

50. Has your school applied for the USDA's Healthier US School Challenge?

No

51. Does your school participate in a Farm to School program to use local, fresh food?

Yes

52. Does your school have an on-site food garden?

Yes

53. Are K-8 students required to take physical education class?

N/A

54. Are high school students required to take physical education to graduate?

Yes, please list number of required credits: - 1 3/4 credits

55. What proportion of physical education (K-12) takes place outside?

50-74%

56. Are K-8 students required to take health education (separately from P.E.)?

N/A

57. Are high school students required to take health education to graduate?

Yes How many credits? - 1/2 credit

58. Is health education taught by a VT licensed health educator?

59. Describe any unique or innovative policies, practices, and/or partnerships to improve nutrition and fitness for students and/or staff. (100 word max)

Lake Region has invested in our fitness room expanding the amount and quality of fitness related equipment. Students and staff now use the fitness room on a regular basis (class activities, free periods, lunchtime, and before/after school). We offer open gym time during lunch periods each day which allows students to have access to a variety of fitness activities to increase their own personal fitness. Guidelines have been written into the school wellness plan which prohibits the sales of high fat foods and sugary drinks during school hours. The school maintains several miles of x-country trails which are open year round to the community for running, hiking, skiing, and snowshoeing and used extensively as part of our physical education program.

60. Please identify a contact person who could provide additional information about your school's environmental and sustainability curriculum?

Name/Title: - Tophar Waring/ Science Dept Chair & Green Team Advisor
 Telephone: - 802-754-6521
 Email Address: - twaring@ocsu.org

61. To what extent does your curriculum address the following VT Agency of Education Standards across all content areas in your school's curriculum?

Note: The referenced Standards are part of Vermont's Framework of Standards and Learning Opportunities and Science Grade Expectations

	Never (not addressed)	Seldom (only a few classes/courses)	Sometimes (generally addressed in most courses)	Often (addressed in all classrooms)
Vital Results Standard--Sustainability(3.9)			X	
Vital Results Standard-- Sense of Place within the Environment (4.6)			X	
Grade Expectations--Ecosystem Dynamics (GEs 30-37)			X	
Grade Expectations--Natural Resources and Agriculture (GE 50)			X	
Next Generation Science Standards - Ecosystems (2-LS2,5-LS2, MS-LS2, HS-LS2)			X	
Next Generation Science Standards - Earth and Human Activity (4-ESS3, MS-ESS3)			X	
Comments:				

62. To what extent are the following topics/practices integrated into your school's curriculum?

	Daily	Weekly	Monthly	Quarterly	Once or Twice/Year
A. Meaningful outdoor learning opportunities at every grade level to teach an array of subjects. In the comments box below, please list the name of an educator we can contact.			X		
B. Sustainability and environmental experiences as a context for learning science, technology, engineering and mathematics (STEM) thinking skills and content knowledge Reference a specific example in the comments box below.				X	
C. Sustainability and environmental learning as a context for addressing green technologies and career pathways List an example related to career exploration in the comment box below:			X		
D. Regular Safety Procedures in the storing, re-evaluation and disposing of laboratory chemicals			X		
E. Civic/community engagement projects integrating environment and sustainability topics				X	
Cite example in comment box below					

Please list the name of an educator and specific examples of the above, referencing A,B,C,D, or E above.: A. Contacts: Topher Waring & Max Van Houten A. Game of Logging; Planting and Maintaining of on-site fruit orchard; use of school grounds as on-site learning lab for landscape design projects. B. Onsite pond and forest for science learning labs; Electric Vehicle Class; Robotics class. C. Electric Vehicle Class; Green Team and Student Recycling Team; Independent solar panel projects with Engineering bound students; Envirothon class connecting students to wildlife biology and forestry interests and careers. D. Chemistry teacher oversees and manages department... follows Flinn Scientific recommendations. E. Barton River Riverbank Restoration Project; Bluebird House Community Project; Project Oceanology - Long Island Sound; Forest Ecology Project.

63. What evidence can you provide of students' successful learning of environmental and sustainability concepts in your school? Please describe. (e.g. assessment results, AP Environmental Science course participation and results, design engineering projects, other).

* Annually send teams to UVM's Design TASC competition - semester-based credit bearing class devoted to the competition. * Annually send teams to Envirothon competition - semester-based credit bearing class devoted to the competition. * Design by students and construction by students of solar powered units for athletic field scoreboards. * Using data to develop energy saving projects and presenting those project ideas with supportive data to the School Board. * Establishment of and planned expansion of aquaculture recirculation system - successful in growing vegetable products used in the school food service program. * Use of onsite science pond and school forest (40 +/- acres) in study of ecology and sustainability. * Student designed worm bin composting project leading to larger scale school composting system. * Electric Vehicle course and Physics course assessments, as well as Earth Science and Biology assessments projects related to environment and sustainability. * Agriculture program has established and maintains a fruit (apple & pear) orchard and vegetable garden. * Students attend soils and land judging competitions.

64. Please describe assessment results related to question #63.

* The students gain overall insight into environmental and sustainability concepts/issues throughout the science and agriculture programs. * Individual classes perform formative and summative assessments, which have yielded results in the proficiency range. * Reflection pieces following the Project Oceanology trip (freshman science) and presentation before the Vermont Principal's Association as requirement for supportive grant funding.

65. Please detail the ongoing professional development training and support around environmental and sustainability learning for teachers in your school? Please list specific PD events, description and frequency.

* New partnership with the Center for an Agricultural Economy based out of Hardwick. We have met once and will be coordinating visits to the Center for staff and students. * Detail Extensive backgrounds of each of our teachers * Earth Science teacher (Laurie Carr) participates annually in 3-week summer travel institute in advanced geology and environmental awareness (ex: Hawaii, Pacific Northwest, California). * Physics teacher (Topher Waring) designs and installs solar energy systems (photovoltaic, hot-water, and air systems), continually since 1992. * Topher Waring has guided students who built and raced electric vehicles in the Tour de Sol (1993-1999). * Chemistry teacher (Tom Smith) operates a farm (organic poultry, pork and beef) and is enrolled in a Masters of Resource Management program through Colorado State University. *Biology Teacher (Greg Hennemuth) collaborates with Natural Resources Conservation District, Northwoods Stewardship Center on forest sustainability, and conducts research with Vt. Agency of Natural Resources. * Agriculture teacher (Max Van Houten) currently is collaborating with Highfields Center for Composting to pilot a new school-wide accelerated compost system. * Max attends yearly orchard management/grafting and heirloom seed exchange summer programs. * Advisory Board composed of over a dozen local professionals (arborist, forester, CTE, etc...) serves to support the Vocational Agriculture and environmental educational programs and educators in our building.

66. What evidence can you provide that the district-wide sustainability curriculum is resulting in changes in how students treat and respect the environment? Please describe.

To our knowledge, there is no supervisory union wide curriculum, however, there is a very coordinated curriculum and cross-discipline focus on sustainability within our building.

67. Please provide a website or other location where your school's curriculum is available.

Our school's curriculum is currently in hardcopy form only....we are in the midst of using the Rubicon Curriculum mapping software to update and map curriculum school-wide.

68. In the space provided please share any additional information that exemplifies the strength and breadth of the environmental and sustainability educational program in your school.

No Response
