

Executive Summary

Moses Brown has been working hard in recent years to reduce our environmental impact and further our sustainability mission. At the center of this effort has been an all-school sustainability committee which is composed of faculty, staff, administrators, students and parents. It includes teachers from all divisions, the head of school, the business manager, the head of operations, the director of dining services, the dean of students, the academic dean, and associate director of athletics among others. In addition, last year the upper school, student environmental club was reconstituted as the Environmental Council with greater responsibility and a more formalized leadership structure. The student leaders of this council also attend meetings of the sustainability committee, which are held monthly. The committee works throughout the year to advance the school's sustainability mission and goals, which are as follows:

As a Friends school in the 21st century, Moses Brown is committed to the goal of environmental sustainability. We are guided in this work by the Quaker testimony of stewardship as well as by the testimonies of simplicity, peace, integrity, community, and equality which constitute the core of the school's values and speak to our collective responsibility to each other, our campus, the local area, and the planet we all share.

The current goals of Moses Brown's Sustainability Committee are:

To educate the community as to environmental literacy, sustainable practices, and the environmental challenges and opportunities of the 21st century.

To reduce the waste stream within the school while recycling as much as possible the waste that we do produce.

To reduce the school's carbon footprint.

While this work has been ongoing for years, in 2015 the school partnered with sustainability consultants from *Ecomotion* who conducted a gap analysis of the school's environmental efforts. This analysis, and the accompanying report, have given us a set of priorities and a road map for the next few years.

Having the head of school, business manager, and director of operations on the sustainability committee over the years has been essential in advancing our environmental goals. It has meant that any time facilities have been upgraded or new buildings have been built, energy efficiency and environmental considerations have been an essential consideration.

The school has also been working in recent years to improve student and faculty health. All health services have been consolidated into a wellness department, chaired by a PE teacher, which includes the school nurse, school psychologist, and athletic trainer. Students participate in a wide offering of sports, and those that don't fulfill a fitness requirement. Together with the athletic department, the wellness department has programmed recreational athletic opportunities for school employees and also promoted fitness challenges. Faculty and staff are also invited to attend mindfulness and meditation sessions, yoga classes, and running groups. The school also made a strong push several years ago to improve its cafeteria offerings and partnered with SAGE Dining to offer a much more nutritious and healthy set of lunch offerings. In contrast to the highly processed offerings of the past, SAGE makes all of its meals from scratch. In addition, the cafeteria has been the site of some of the

schools most innovating environmental partnerships. For example, for several years we have been partnering with Newport Biodiesel who collects all of our used cooking oil. SAGE prioritizes local sourcing of food and advertises information about the local farms and orchards with whom it partners. In addition, Moses Brown was one of the first schools to partner with the Compost Plant, a company that collects and then composts all of our pre-consumer food waste.

Environmental education is woven throughout the curriculum with deeper learning experiences in many grades. For example, first graders take part in a farm-to-table unit where they learn about the path of the food from seeds to what they eat every day. As part of this unit, the first graders partner with the upper school AP environmental science class to grow and eventually harvest various vegetables in our school garden. Fifth graders, study climate change in science class as well as the concept of a carbon footprint. At the end of this unit they write letters to our head of school and head of operations detailing changes that they would like to see on campus in order to reduce the school's carbon footprint. In 7th grade science the students study the greenhouse effect, solar energy, and water resources. In 8th grade history class, the culminating unit focuses on climate change and the international community's response to it. Environmental topics are woven through many upper school classes (e.g., by studying Thoreau's *Walden* and "Walking" in junior English), and we offer a popular senior elective in "Survival Literature: Exploring the Wild," which gives some attention to environmental topics. Also, students who wish to focus on it can take environmental science as an advanced placement course. These students, along with the Environmental Council, often play a leadership role in advancing sustainability on campus. In addition, the sustainability committee offers mini grants out of its budget to students or teachers with ideas for advancing our environmental goals. For example, we are currently reviewing the proposal of a junior who is requesting funding to develop a prototype of a portable classroom garden.

Every year, the school programs events which are meant to educate and raise awareness of environmental issues. For example each year during Earth Week, the entire school gathers for a meeting for worship (a Quaker school practice) focused on the theme of sustainability. There are also learning opportunities for faculty and staff throughout the year. For example, last year Julia Gold, Climate Change Program Manager at the RI Department of Health, presented a workshop on the anticipated impact of climate change on the health of Rhode Islanders. Looking ahead, we will continue to program events and opportunities like this for faculty, staff and students.

We are also excited to report a very recent development in our efforts of becoming a sustainable community at Moses Brown. In the last week, our sustainability committee (consisting of students, faculty and staff members) made a recommendation to the Head of School, Dr. Matt Glendinning, to go "plastic-bottle-free" starting in the next academic year. Dr. Glendinning is committed to the ideals behind this proposal and we are confident that our administrative council will approve our efforts to make us "plastic-bottle free" by September 2017. This would mean that no plastic bottles would be sold in vending machines, cafeterias or snack areas at MB. Additionally, we would discourage students and adults from bringing plastic bottles onto campus. We are planning a week of "plastic bottle-free living" at MB during Earth Week 2017 in which we will help students develop new habits and formally announce our long-term plan for a campus free of plastic bottles.

School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

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

1. The school has some configuration that includes grades Pre-K-12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review. The Department of Defense Education Activity (DoDEA) is not subject to the jurisdiction of OCR. The nominated DoDEA schools, however, are subject to and in compliance with statutory and regulatory requirements to comply with Federal civil rights laws.
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 2015-2018

Public Charter Title I Magnet Private Independent Rural

Name of Principal: Matt Glendinning

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

Official School Name: Moses Brown School

(As it should appear on an award)

Official School Name Mailing Address: 250 Lloyd Ave. Providence, RI 02906

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

County: State School Code Number *:

Telephone: 401-831-7350 Fax: 401-455-0084

Web site/URL: www.mosesbrown.org E-mail: mglendinning@mosesbrown.org

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

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



Date: 1/24/17

(Principal's Signature)

Name of Superintendent: N/A

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

Nominating Authority's Certifications

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

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

Name of Nominating Agency: Rhode Island Department of Education

Name of Nominating Authority: Ken Wagner, Commissioner

(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.

Information in this application



Date: 2/1/17

(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent summary that describes how your school is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars. Then, include concrete examples for work in every Pillar and Element. Only schools that document progress in every Pillar and Element can be considered for this award.

SUBMISSION

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

OMB Control Number: 1860-0509

Expiration Date: March 31, 2018

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.



Rhode Island Green Ribbon Schools Application

Thank you for your interest in completing the Rhode Island Department of Education application for nomination to U.S. Department of Education Green Ribbon Schools (ED-GRS). In order to complete this application, you will need to collect data about your school's facility, health, physical education and safety policies; food service; and environmental and sustainability curriculum.

ED-GRS recognizes schools taking a comprehensive approach to greening their school. A comprehensive approach incorporates environmental learning with improving environmental and health impacts. Becoming a U.S. Department of Education Green Ribbon School is a two-step process. The first step is to complete and submit this form to be selected as a nominee by an eligible nominating authority. Once selected as a nominee by your state or eligible nominating authority, the second step of the process requires signatures for the Nominee Presentation Form that will be sent to the U.S. Department of Education (ED) along with your application.

ED selects honorees from those presented by eligible nominating authorities nationwide. Selection will be based on documentation of the applicant's high achievement in the three ED-GRS Pillars:

Pillar I: Reduce environmental impact and costs.

Pillar II: Improve the health and wellness of students and staff.

Pillar III: Provide effective environmental and sustainability education, incorporating STEM, civic skills and green career pathways.

Schools demonstrating exemplary achievement in all three Pillars will receive highest rankings. It is important to document concrete achievement. It will help you to assemble a team to complete the application. This team might include: a facilities manager, physical education director, food services director, curriculum director, finance department representatives, teachers and students. You should consult the ED-GRS [Green Strides Resources Page and Webinar Series](#) for standards, programs and grants related to each Pillar, Element and question. This is an excellent clearinghouse of information for all schools, not only those who apply.

The questions in this application will help you demonstrate your high achievement in these Pillars as well as provide space for you to include pertinent documentation. **Applications are due by January 17, 2017.** We will select nominees and submit them to the U.S. Department of Education by February 1, 2017.

Note that if selected for nomination to ED-GRS, the school principal and district superintendent must be prepared to certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true; however, in no case is a private school required to make any certification with regard to the public school district in which it is located.

1. The school has some configuration that includes one or more of grades Pre-K-12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction as 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. 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.

School Contact Information

School Name: Moses Brown School

Street Address: 250 Lloyd Ave

City: Providence State: RI Zip: 02906

Website: www.mosesbrown.org Facebook page: <https://www.facebook.com/MosesBrownSchool/>

Principal Name: Matt Glendinning

Principal Email Address: mglendinning@mosesbrown.org Phone Number: (401) 831 7350

Lead Applicant Name (if different): Graham Holland and Steve Kidd

Lead Applicant Email: gholland@mosesbrown.org / skidd@mosesbrown.org Phone Number: (401) 474 3088/(401) 230 0149

Level <input type="checkbox"/> Early Learning Center <input checked="" type="checkbox"/> Elementary (PK - 5 or 6) <input checked="" type="checkbox"/> K - 8 <input checked="" type="checkbox"/> Middle (6 - 8 or 9) <input checked="" type="checkbox"/> High (9 or 10 - 12)	School Type <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private/Independent <input type="checkbox"/> Charter <input type="checkbox"/> Magnet	How would you describe your school? <input checked="" type="checkbox"/> Urban <input type="checkbox"/> Suburban <input type="checkbox"/> Rural	District Name _____ Is your school in one of the largest 50 districts in the nation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <hr/> Total Enrolled: _____775_____
Does your school serve 40% or more students from disadvantaged households? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	% receiving FRPL_____No_____ % limited English proficient_____ Other measures_____	Graduation rate: __95%__ Attendance rate: ____	

1. Is your school participating in a local, state or national school program, such as EPA ENERGY STAR Portfolio Manager, EcoSchools, Project Learning Tree, or others, which asks you to benchmark progress in some fashion in any or all of the Pillars? [State may wish to add other program names to this list]

Yes No Program(s) and level(s) achieved:

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

Yes No Award(s) and year(s) _____

Pillar I: Reduced Environmental Impact and Costs

Energy

1. Can your school demonstrate a reduction in Greenhouse Gas emissions?

Thanks to the new solar panels installed in 2016 and Moses Brown’s new boiler plant which will be operational this year, we will be reducing our Greenhouse Gas Emissions. We are not at this time able to calculate our percentage reduction or our GHG rate, but are working towards accounting for both in the next calendar year. In addition, 90% of our facilities has occupancy sensors for lighting and in the past year we replaced our field house lighting from 450 watt units to LED lights. Lastly, the majority of our roof surfaces on campus (Hoffman, Bready, Ross, Woodman) boast Sarnafil PVC roofing membranes; the high solar reflectivity of which reduces energy waste and lowers monthly heating and cooling costs.

(x) Yes () No Percentage reduction: _____ TBD _____ Over (m/yy - m/yy): _____

Initial GHG emissions rate (MT eCO₂/person): _____

Final GHG emissions rate (MT eCO₂/person): _____

Offsets: _____ How did you calculate the reduction? _____

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

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

3. In what year was your school originally constructed? 1784 with several additions and renovations in the over two centuries of the school's history.

What is the total building area of your school? 33 acres

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

For new building(s): Percentage building area that meets green building standards: Certification and year received: _____ TBD _____ Total constructed area: _____

For renovated building(s): Percentage of the building area that meets green building standards: _____ Certification and year: _____ Total renovated area: _____

The Woodman Center and the renovations to Jones library would have achieved LEED Silver certification had we decided to submit the projects to the USGBC.

Some of the major strategies implemented:

- Approximately a 30% reduction through the use of low flow fixtures.
- Although we were not able to find grant funding for solar panels, we have designed the roof structure to accommodate the panel load and have provided a pathway to the roof from the electrical room for future installation.
- Energy efficiency of 25% through utilization of high efficiency condensing boilers and building envelope upgrades.
- LED lighting throughout both buildings.
- Solar shades that track the sun's trajectory and adjust accordingly reducing cooling loads.
- Daylight harvesting and enhanced lighting controls that adjusts to natural lighting levels in the spaces.

Water and Grounds

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

Our water usage has actually increased over the past year as we have been in construction for our new community and performing arts center. Despite conservation efforts used in the construction of the new building, we anticipate that water usage will continue to increase over this year with the addition of 18 new bathroom stalls in our new space and a new running kitchen space. Much of this anticipated increase is due to the fact that we anticipate that this new building will be a hub of student and parent activity. In addition, because it is primarily a performing arts space, we anticipate hosting a variety of evening and weekend events for the community. Nevertheless, we have low-flow toilets installed in the new building and all sinks (save one in our theater dressing room) are automatic metered sinks. In addition, we have two water bottle filling stations installed to decrease plastic bottle usage. This is in addition to the four other water bottle filling stations that we have installed around campus in the last few years.

The building of our Woodman Center also will welcome and engage our local community in a new and exciting way. Our recent presentation of the film *Landfill Harmonic* on 1/11/17 - a documentary that highlights the Recycled Orchestra of Cateura, a Paraguayan musical group that plays instruments made entirely out of garbage - is an example of the type of environmental programmatic outreach we are now able to offer the larger Providence area community.

At this time we are unable to determine exact numbers to the prompts below.

Average Baseline water use (gallons per occupant): _____

Current water use (gallons per occupant): _____

Percentage reduction in domestic water use: _____

Percentage reduction in irrigation water use: _____

Time period measured (mm/yyyy - mm/yyyy): _____

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

6. What percentage of your landscaping is considered water-efficient and/or regionally appropriate?:

We are unsure of percentage, but 100% of the sprinkler systems on campus are outfitted with deduct meters.

Types of plants used and location: We have several different types of grasses installed in our two new bioswale systems which were added as part of our 2016 Woodman Center construction and the renovation of our library space (See image attached).

7. Describe alternate water sources used for irrigation. (50 words max or whatever word max you indicate to your applicants)

Rain barrels placed at strategic high-flow areas on campus are also used for irrigation purposes.

8. Describe any efforts to reduce stormwater runoff and/or reduce impermeable surfaces. (50 words max)

Every MB downspout at the school are channeled into a retention system. There are five retention tanks on campus including a new one in our renovated baseball field. In addition, we have two brand new bioswale systems which were added to our campus as part of our 2016 construction. This makes a total of three bioswale systems on campus.

9. Our school's drinking water comes from: (X) Municipal water source () Well on school property () Other: _____

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

Moses Brown has backflow preventer valves on all street feeds.

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

MB does periodic testing of drinking water to ensure safe levels of all contaminants and impurities.

12. What percentage of the school grounds are devoted to ecologically beneficial uses?

As part of our seventh grade math curriculum, our students put together several different models to help calculate the total percentage of our campus devoted to ecologically beneficial uses. They performed this task specifically to do their part for this application. The students came up with two different numbers. The first includes the playing fields which are on campus that are available to wildlife and connected to our other green-spaces. That total percentage number is 50%. The percentage of school grounds devoted to ecologically beneficial uses without the playing fields is 39%. Please see the attached graph and calculations submitted by MB's class of 2022. Below please find correspondence from Brigid Ohl, one of our 7th grade contributors. Each team created their own grid and estimate, we came to our total above by finding the most accurate examples and averaging their findings.

Hello Steve,

We hope you are successful in your attempt to make Moses Brown a Green Ribbon School. In math the past few days, we have been working on finding the percentage of green space here at MB. We found a satellite map of Moses Brown, and made a grid to go over it. We counted the total number of boxes that our campus took up, then counted the amount of boxes the fields and other green spaces took up. The total number of boxes was 193. The fields took up 49 boxes, and the extra green spaces took up 50 boxes, so all of the green spaces(including fields) was 99 boxes. The percentage of 99 boxes out of the total of 193 boxes was 51.3 %. The percentage of the green spaces alone was 50 out of 193, or 25.9%. We didn't know if you needed the percentage of green space on campus including the fields or without them, so we added both percentages. I hope this information is helpful for you and your project.

Green space on campus including fields: 51.3% of campus

Green space on campus not including fields: 25.9% of campus

13. List the types and amounts of hazardous waste generated at your school:

Flammable liquids	Corrosive liquids	Toxics	Mercury	Other:
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How is this measured? _____

How is hazardous waste disposal tracked? _____

Describe other measures taken to reduce solid waste and eliminate hazardous waste. (100 word max)

Once a year we have to change out the limestone traps in the Science Labs in Friends Hall and Bready House. We bring Clean Harbors RI in and they do the work and dispose of the waste in a properly environmentally sound fashion. This past summer they took away five 55 gallon drums of the limestone waste.

We also cleaned out our oil and grease separator tank that is located in front of our maintenance building. They removed 3 tons of “field paint sludge”, which is a mixture of dirt, used field paint, etc. from the trough drain.

We also recycle our fluorescent lamps and batteries from around campus. We sent out 65 lbs of alkaline batteries, 10 lbs of lead-acid batteries and 2736 lineal feet of Fluorescent lamps back in April. We carefully store them in our garage in fiber protective barrels until we have a full load.

14. Which green cleaning custodial standard is used?

100% of Paper towels and toilet paper products purchased and used on campus are made from postconsumer material. Whenever possible, we use cleaning supplies that can be green, such as all-purpose cleaners and glass cleaners are that environmentally friendly. We are continually seeking “green” alternatives to current disinfectants and cleaning materials which are not so.

What percentage of all products is certified? _____

What specific third party certified green cleaning product standard does your school use?

Alternative Transportation

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

Approximately 76 students take the bus to school, which is about 10% of our student body. While some students do carpool, walk, and bike, we don’t have specific data on these numbers.

How is this data calculated? (50 word max)

16. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships. (100 word max)

Our partnership with Newport Biodiesel and the Compost Plant is described above. For the past two years we have partnered with the Blackstone Parks Conservancy and the Providence Parks and Recreation Department for our community service days. In 2015 the Upper School performed a public campaign on stormwater run-off where we cleaned storm drains, talked to local businesses and distributed informational brochures to residents. In 2016 the US students identified and mapped invasive plant species in two of Providence's parks. We brought experts from local Universities and Colleges, Audubon and Save the Bay, and Master Gardeners to interact with our students and faculty.

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

Environmental Health

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

Currently, if a pest is detected on campus we call in our local Pest Control Services Company, Steripest (IPM certified).

2. What is the volume of your annual pesticide use (gal/student/year)? Describe efforts to reduce use:
_____ We are unable to answer this question at this time.

3. Which of the following practices does your school employ to minimize exposure to hazardous contaminants? Provide specific examples of actions taken for each checked practice.

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

Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school. _____

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

Our school does not have any fuel burning combustion appliances

Our school has tested all frequently occupied rooms at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L.

Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure. _____

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

Management of chemicals at Moses Brown depends on their use, but are consistently stored and applied according to all OSHA standards. Cleaning supplies that are used are considered “Green” due to their lowered concentrations and toxicity, and are stored in supply closets to which only the maintenance staff has access. Pesticides and herbicides are only applied by trained staff and are stored in the maintenance building. Chemicals used for curriculum are stored in locked laboratory prep rooms with proper MSDS information.

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

All renovations and additions since the year 2000 are ventilated through our HVAC system with fresh air from outside. This accounts for approximately 70% of our indoor space. Additionally, most all classroom windows and hallway windows can be opened directly to outside.

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

Moses Brown employs ServePro to perform our annual mold tests.

7. Our school has installed local exhaust systems for major airborne contaminant sources. (X)Yes ()No

8 Describe your school’s practices for inspecting and maintaining the building’s ventilation system and all unit ventilators to ensure they are clean and operating properly. (100 word max)

We have 490 reuseable (washable) and replaceable air filters on campus which are checked quarterly.

9. Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards. (100 word max)

All renovations that have taken place in the past decade (Ross House, Woodman) are connected to our HVAC system which ventilates 70% of our indoor space with fresh air from the outside.

10. Describe other steps your school takes to protect indoor environmental quality such as implementing EPA IAQ Tools for Schools and/or conducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action. (200 word max)

Nutrition and Fitness

11. Which practices does your school employ to promote nutrition, physical activity and overall school health? Provide specific examples of actions taken for each checked practice, focusing on innovative or unique practices and partnerships. (100 word max each or whatever you choose to make them!)

MB has physical education (PE) program from our nursery students through our eighth grade class. Lower School (Nursery through fifth grade) has PE three times a week and Middle school (sixth through eighth) is 2-3

times a week. In lower school, nutrition is taught in regular grade level classes. In Upper School there is a requirement for students to do something athletic during at least one of their three after school programming seasons. In terms of health, the eighth grade studies drug abuse education and sex education in science class. As part of freshman studies, there is a healthy living component which covers nutrition, exercise and healthy choices. In 10th grade all students take a wellness class in which they discuss healthy relationships, depression, anxiety and consent.

Our school participates in the USDA's HeathierUS School Challenge. Level and year: _____.

Our school participates in a Farm to School program to use local, fresh food.

Our school has an on-site food garden. _____

Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community. _____

Our students spent at least 120 minutes per week over the past year in school supervised physical education.

At least 50% of our students' annual physical education takes place outdoors. ___for middle school yes - for lower school no - upper school playing fall/spring sports - yes. _____

Health measures are integrated into assessments. _____

At least 50% of our students have participated in the EPA's Sunwise (or equivalent program).

Food purchased by our school is certified as "environmentally preferable"

Percentage: _____ Type: ___See below_____

Environment Friendly Items:

- Fork, knife, spoons for catering events are made of recycled materials and are compostable
- Our 6in and 9in plates that we use for catering, breakfast pastry and lunch in Marc's Place (our student snack bar) are made of recycled materials and are compostable
- Our packaging materials in the Woodman Café (salads, sandwiches, parfaits, yogurts, snacks) are compostable
- We have partnered with The Compost Plant which collects our pre-consumer food scraps and turns them into planting compost
- We have partnered with Newport Biodiesel which collects our spent fryer grease and converts it into home heating oil
- Our linen supplier Falvey Linen & Uniform Supply (Cranston, RI 5 miles from campus) is a charter member of Laundry Environmental Stewardship Program and is TRSA Certified
- We batch cook to reduce the amount of leftover or discarded products
- We encourage recycling

- 2016 we installed a new walk-in cooler and freezer with new energy star rated condensers
- In new café we eliminated plastic bottles – utilizing canned and glass bottled beverages

Locally Sourced: (see attached image of “Sage Dining Services Sustainability” which hangs in our dining hall)

- We’ve partnered with Farm Fresh RI which allows us to connect directly to RI and nearby MA grown produce
- Produce is sourced from a variety of Rhode Island and local Massachusetts farms – list can be provided if needed
- Our milk is all purchased through Rhody Fresh (Hope, RI 16 miles from campus) which utilizes milk from Rhode Island farms
- Our breads are purchased from Calise & Son’s Bakery (Lincoln, RI 11 miles from campus)
- Coffee we use in the Dining Room is sourced from a local roaster Excellent Coffee Company (Pawtucket, RI 3 miles from campus).
- Coffee we use in the Café is sourced from a local craft roaster Dave’s Coffee Roastery (Narragansett, RI 32 miles from campus)
- Our yogurt is sourced from Narragansett Creamery (Providence, RI 4 miles from campus)
- We utilize campus garden when available

12. Describe the type of outdoor education, exercise and recreation available. (100 word max)

Our Lower School has recess twice a day and as long as it is not raining the students will be outside for this. In Middle School, students in the fall and spring will have PE classes outside. Middle School and Upper School sport teams in the fall and spring will have their practices and games outside.

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

There is a strong focus on locally sourced food here at Moses Brown. Students are urged and encouraged to participate in a healthy diet via posters, signs and monitors that provide information on where our dining hall food is sourced and recipes/combinations for healthy meals.

Coordinated School Health, Mental Health, School Climate, and Safety

14. Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues? (X) Yes () No

If yes, describe the health-related initiatives or approaches used by the school:

We have a full-time psychologist who provides mental health counseling and support for students from Nursery through Grade 12, as well as consultation to teachers and families about social, emotional, and behavioral issues. The psychologist also supports the academic/learning difficulties of students who are struggling academically or have been diagnosed with learning disabilities by outlining and communicating accommodations. All students in the 8th grade participate in a semester-long Personal Ethics and Resilience class aimed at building emotional awareness and coping skills.

15. Does your school partner with any postsecondary institutions, businesses, nonprofit organizations, or community groups to support student health and/or safety? () Yes (X) No

If yes, describe these partnerships:

16. Does your school have a school nurse and/or a school-based health center? (X) Yes () No

17. Describe your school's efforts to support student mental health and school climate (e.g. anti-bullying programs, peer counseling, etc.):

The school has a full time psychologist as well as a psychology intern, both of whom are available to students. The school psychologist and middle school head co-teach a course to 8th graders on ethics and resilience. There is a peer leadership course in upper school, and students who take this course often serve as mentors to incoming ninth graders in the fall of their freshman year. We do not, as of yet, have specific anti-bullying curriculum or programs, but we are in the planning stages for a suicide prevention program to be offered in the 2017-2018 academic year.

Pillar 3: Effective Environmental and Sustainability Education

1. Which practices does your school employ to help ensure effective environmental and sustainability education? Provide specific examples of actions taken for each checked practice, highlighting innovative or unique practices and partnerships.

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

There is no formal requirement, only more general goals established by the sustainability committee and at the divisional level.

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

As described in the narrative summary, sustainability concepts are integrated throughout the curriculum with key, in-depth experiences at various grade levels. The all-school sustainability committee has faculty representatives from all three divisions who often take a lead in making sure that environmental concepts are present in the curriculum. As stated in the narrative summary: First graders take part in a farm-to-table unit where they learn about the path of the food from seeds to what they eat every day. As part of this unit, the first graders partner with the upper school AP environmental science class to grow and eventually harvest various vegetables in our school garden. Fifth graders, study climate change in science class as well as the concept of a carbon footprint. At the end of this unit they write letters to our head of school and head of operations detailing changes that they would like to see on campus in order to reduce the school's carbon footprint. In 7th grade science the students study the green effect, solar energy, and water resources. In 8th grade history class, the culminating unit focuses on climate change and the international community's response to it. Environmental topics are woven through many upper

school classes, but students who wish to focus on it can take environmental science as an advanced placement. The issues related to environmental sustainability are repeated in a variety of different academic disciplines at several different grade levels throughout a student's career at Moses Brown. The layers of knowledge from a variety of viewpoints helps students to create a deep and personal understanding and relationship to their role as stewards of the earth.

[x] Environmental and sustainability concepts are integrated into assessments. (200 word max)

As a school, Moses Brown emphasizes project-based learning as a pedagogical practice. Many of the of the learning experiences described above would be encountered as projects, and all of them would include assessments that highlight these concepts. For example, 7th graders study water resources and learn about the lack of clean drinking water in much of the world. As a culminating project of this unit they work to design a water carrying vessel of a given volume (determined in math class) using only cardboard and duct tape and must use it to transport one gallon of water four times around the track to simulate the distance that many people must travel to a clean water source.

[] Students evidence high levels of proficiency in these assessments. (100 word max)

As these are not standardized tests, student performance on these assessments would be in line with their performance on any assessment.

[x] Professional development in environmental and sustainability education are provided to all teachers. (200 word max)

The school has a generous professional development budget and teachers are encouraged to attend conferences, workshops and other growth opportunities.

2. For schools serving grades 9-12, provide:

Percentage of last year's eligible graduates who completed the AP Environmental Science course during their high school career: Roughly 15% Percentage scoring a 3 or higher: Most student score 3 or higher

3. How does your school use sustainability and the environment as a context for learning science, technology, engineering and mathematics thinking skills and content knowledge? (200 word max)

Many of STEM classroom efforts with project-based learning, design learning, and challenged-based learning revolve around issues central to sustainability and the environment. Classroom examples of student experiences exist across the STEM disciplines and grade levels. For example, designing a wind turbine to generate sufficient electricity to power an LED is a challenge in an upper level engineering course, coding an Arduino board to measure and collect wind speed and direction is one assignment in an entry level computer science course, and 7th grader students design and build a watertight container using duct tape, cardboard, and a meter of rope to transport ten liters of water for one mile. In addition, the 5th grade spent the fall learning about the science behind climate change. In response to the driving question, "What can we, as 5th graders, do to help with the problems in RI caused by climate change?" they worked in groups to design and carry out a variety of different creative projects.

4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways? (200 word max)

Offerings in the upper school, both in computer science and environmental science, (including electives in Marine Science, Astronomy, and Meteorology), provide a rich and current context for promoting green technologies and introducing respective career pathways. The school's weather station and geographic location near Narragansett Bay provide countless opportunities for learning. One service morning, all upper school students help clean and mark the East Side of Providence's storm water drainage system. Furthermore, younger students, including some as early as 4 year olds, explore and study our 33-acre campus as its own environmental lab, counting trees, identifying plants through leaf structures, and collecting bug samples.

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

As described above, upper school students have recently partnered with the Blackstone Parks Conservancy and the Providence Parks and Recreation Department for community service days. In 2015 the Upper School performed a public campaign on stormwater run-off during which they cleaned storm drains, talked to local businesses and distributed informational brochures to residents. In 2016 the US students identified and mapped invasive plant species in two of Providence's parks. We brought experts from local Universities and Colleges, Audubon and Save the Bay, and Master Gardeners to interact with our students and faculty.

6. Describe students' meaningful outdoor learning experiences at every grade level. (200 word max)

Students at younger grade levels are encouraged to be outside for recess as much as weather allows. In addition, the school has a community garden which students visit with their classes as well as a peace garden which is a site for meetings for worship and other gatherings. Students take field trips to outdoor settings (e.g. apple picking in kindergarten, local farms in first grade, Alton Jones in fifth). Middle school students begin the year with a four day overnight trip to one of three outdoor education centers. While the primary purpose of these trips is student bonding, each of them has environmental focus. Upper school make use of campus outdoor spaces when weather permits. Science classes are the most likely to get students off campus and outdoors. The Environmental science class makes use of the school garden and does outdoor field work as described above.

7. Describe how outdoor learning is used to teach an array of subjects in context, engage the broader community, and develop civic skills. (200 word max)

See above: Our hope is that all of the experiences described will encourage a engagement with local environmental issues and those that affect the broader world.

8. Describe your partnerships to help your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships. (Maximum 200 words)

See descriptions of partnerships listed above:

