

Background

Thank you for your interest in completing the Illinois State Board of Education's application for nomination to U.S. Department of Education Green Ribbon Schools (ED-GRS) or District Sustainability Award. ED-GRS recognizes schools, districts, and postsecondary institutions taking a comprehensive approach to sustainability, incorporating environmental learning with improving environmental and health impacts.

Becoming a U.S. Department of Education Green Ribbon School, District Sustainability Awardee, or Postsecondary Sustainability Awardee is a multi-step process. The first step is to complete and submit this form to be selected as a nominee by your state education agency or equivalent.

Once selected as a nominee by your state education authorities, the second step of the process requires signatures certifying compliance with all applicable civil rights, Federal Student Aid, health, safety, and environmental statutory and regulatory requirements. You may view the certifications that you will be asked to make in the Nominee Presentation Forms here.

Finally, your nomination materials, including the signed Nominee Presentation Form, documentation of progress in all areas of the award, and several photographs, will be sent to the U.S. Department of Education (ED). ED notifies national selectees in the spring, inviting them to send representatives to attend a ceremony in Washington, D.C. in the fall. Selection is based on documentation of the nominee's progress in the three ED-GRS Pillars:

Pillar I: Reducing environmental impact and costs;

Pillar II: Improving the health and wellness of students and staff; and

Pillar III: Offering effective environmental and sustainability education.

Schools, districts, and postsecondary institutions demonstrating progress in every area will receive highest scores. It may help to assemble a team with expertise across these areas to complete the application. You may also wish to consult <u>Green Strides</u> for programs related to each Pillar.

Please reach out to <u>greenribbon@isbe.net</u> if you have any questions or need an accommodation to complete this application.

Applications may not exceed 18 pages in length.
Applications are due by 5:00 PM on December 20, 2024.

School/District Applicant Information

1. School Name (or District Name if submitting a district nomination):

The Avery Coonley School Street Address: 1400 Maple Ave City: Downers Grove; County: USA

Zip: 60515

District Name/Number: N/A

2. School or District Website: https://www.averycoonley.org/

3. Principal Name: Dr. Kirsty Montgomery

Principal Email Address: kmontgomery@averycoonley.org

Phone Number: (630) 969-0800

4. Lead Applicant Name (if different): Kenny Bae Lead Applicant Email: kbae@averycoonley.org

Phone Number: (630) 969-0800

5. (Optional)

Facebook page: https://www.facebook.com/averycoonley/
YouTube: https://www.youtube.com/@averycoonleyschl/videos
Instagram: https://www.instagram.com/averycoonley/?hl=en

Twitter: N/A

Level □ Early Learning Center ⊠ Elementary (PK - 5 or 6) ⊠ K - 8 ⊠ Middle (6 - 8 or 9) □ High (9 or 10 - 12) □ School District	School Type □ Public ☑ Private/Independent □ Charter □ Magnet	How would you describe your school? ☐ Urban ☒ Suburban ☐ Rural	Is your school in one of the largest 50 districts in the nation? ☐ Yes ☐ No Total Enrolled: 332
Does your school serve 40% or more students from disadvantaged households? ☐ Yes ☒ No	% receiving FRPL: 0% % limited English proficie Other measures: N/A	nt: .003%	Graduation rate: 100% Attendance rate: 100%

School Summary and Highlights:

<u>Use 1 to 2 pages</u> to **provide a summary narrative** describing your school's efforts to reduce environmental impact and costs; improve student and staff health and wellness; and provide effective environmental and sustainability education. This overarching summary should highlight the best of your work in every ED-GRS Pillar and Element.

You can view examples of summary narratives in past <u>Highlights Reports</u>. The summary that you submit should be what you would like to see appear in a future Highlights Report, if your institution is selected. Be sure to include concrete sustainability achievements, supporting data, unique partnerships, program participation, awards, and certifications. It may be helpful to pull from your application materials to write the summary.

Situated within the beautiful Maple Grove Forest of Downers Grove, Illinois, The Avery Coonley School (ACS) exemplifies a steadfast commitment to environmental care, overall well-being, and education in sustainability. As a non-denominational institution serving 332 academically gifted students from Pre-Kindergarten through Grade 8, ACS envisions a future where learning and environmental protection are seamlessly integrated and specific initiatives encourage responsible practices and support a culture of wellness among students and staff.

Innovation is central to ACS's sustainability initiatives, with the student-led STEAM (Science, Technology, Engineering, Arts, and Math) club and Hydro Bloom Society Club earning national recognition for their AI-powered vertical gardens. These hydroponic systems won two national awards during the 2023-2024 school year: the Green School Project Award for their innovative design and the National Energy Education Development (NEED) Project Award for reducing energy consumption. In addition to these accolades, which establish ACS as a leader in sustainable health practices in education, the gardens directly contribute to our school's smoothie program, providing fresh produce for students to create nutritious beverages.

ACS also prioritizes experiential learning through unique environmental initiatives. For example, ACS students were awarded a research permit to study the vernal window at Maple Grove Forest Preserve. This program enables 8th-grade students to conduct long-term research on climate change's impact on local ecosystems, reinforcing the importance of conservation. Partnerships with organizations such as the Maple Grove Forest Preserve and the Morton Arboretum enhance these experiences, providing students with invaluable hands-on learning opportunities.

Furthermore, ACS students recently organized and hosted the "Green Frontiers: Sustainable Ideas" TEDx event, which reached over 42 million TEDx subscribers. The event featured collaborations with experts, including climate change scientists from Argonne National Laboratory, inspiring students to develop innovative solutions for environmental challenges. ACS also received international recognition when Bennett, a 4-year-old from our PreK program, became one of the world's youngest TEDx speakers, delivering a talk on "Big Dreams." This further demonstrates our commitment to nurturing leadership and sustainability from an early age.

The Avery Coonley School's dedication to environmental education and wellness has earned recognition for its comprehensive sustainability curriculum and initiatives. By equipping students with practical skills and knowledge, the school is nurturing a generation of environmentally aware leaders prepared to drive meaningful change in the world. This dedication is further evidenced by ACS receiving the Physical Education Blue Ribbon Award in 2010-2015, 2017-2022, and 2023, underscoring the school's emphasis on health and wellness. Achieving Green Ribbon School status is a pivotal step in our broader goal of embedding sustainable practices into all aspects of school life. The Avery Coonley School is a beacon of innovation, environmental stewardship, and wellness, inspiring a commitment to sustainability beyond the classroom. Through collaboration and education, we strive to create a brighter, more sustainable future for generations to come.

Pillar I: Reduced Environmental Impact and Costs

A. Energy

1.	Do you track energy use in ENERGY STAR Portfolio Manager®, or another way in your
	district?

 \boxtimes Yes \square No

2. If so, how have you tracked your resource usage, for how long, and how has your usage dropped over that time? (Data or graphs can be submitted as a separate supportive document if desired.)

The ACS Middle School Robotics Team (Cyber Seahorse) has worked with school administrators to monitor gas, water, and electricity usage from 2018-2024, conducting energy audits to identify inefficiencies. Their analysis revealed that outdated lighting systems were a major energy contributor, leading ACS to switch to energy-efficient LED bulbs, expected to reduce energy consumption by up to 20%. The team also tracks water usage by analyzing monthly bills and plans to explore ways to reduce consumption. Looking ahead, they will present their findings at the World Championship FIRST event in Houston, aiming to inspire other students to partner with schools on resource tracking and implementing sustainable solutions.

3. Please describe the strategies you have implemented or planned to reduce your energy consumption.

To reduce energy consumption, ACS have implemented several strategies. ACS has switched to energy-efficient LED lighting, cutting energy use by up to 20%, and installed smart meters to monitor real-time consumption. Behavioral changes, such as turning off lights and devices when not in use and optimizing HVAC schedules, have also been effective. Moving forward, ACS plans to explore renewable energy options like solar panels, improve building insulation, and install low-flow water fixtures to conserve water and reduce heating energy. The ACS Robotics Team will continue leading audits and sharing findings to promote these practices.

- 4. What percentage of your school's energy is obtained from:
 - a. On-site renewable energy generation: 0% Type: n/a
 - b. **Purchased renewable energy:** Illinois (ComEd) generates 53.38% of electricity from nuclear power, 32.89% from fossil fuels (composed of coal, natural gas, petroleum, and other gases), and 13.73% from renewables.

Type: Solar, nuclear, renewables etc.

- c. Participation in an energy cooperative, DOE Wind for Schools or other school energy program: ComEd
- 5. In what year was your school originally built? 1906
- 6. What is the total building area of your school? 90,940 sq ft
- 7. Please describe any new construction or major renovations at your school in the past ten years, including the date, and the percentage of area renovated. Describe how you achieved green building or similar standards and any certifications earned.

Over the past decade, ACS has undertaken several major construction and renovation projects to enhance its facilities and promote sustainability. In 2015, the Library underwent a \$500,000 renovation, updating

both its functionality and aesthetics by transforming it into a flexible collaboration space with a large conference room and three smaller collaboration rooms. It now serves as a hub for student and adult collaboration, as well as a gathering space for the school community. In 2020-2022, ACS completed significant upgrades to its Commons, enhancing both the aesthetic and functional use of the space by adding advanced technology and a large fish tank. Soundproofing measures were also implemented to create a quieter and more comfortable environment, and its adjacent bathrooms were renovated to improve accessibility. In 2024, two major additions were made: the Lower School Science Lab and the ACS Maker Space. The Science Lab provides a dedicated space for younger students to engage in scientific exploration, while the Maker Space allows creativity and innovation through hands-on learning in design, engineering, and technology. Both spaces incorporate energy-efficient lighting, water-saving fixtures, and green building practices, reflecting ACS's commitment to sustainability. While no formal green building certifications have been pursued, these initiatives align with environmental best practices and emphasize the school's dedication to creating a sustainable and innovative learning environment.

8. Please describe your sustainability policy and practice for new or renovated construction materials and building maintenance.

The Avery Coonley School emphasizes green building solutions and eco-conscious practices in construction, renovation, and building maintenance. With a deep understanding of sustainable construction, including energy-efficient water management, we integrate innovative practices to minimize our environmental impact. Our projects prioritize the use of recycled and repurposed materials, and we select eco-friendly paints, adhesives, and finishes with low VOC content to promote healthier indoor air quality. Recent renovations, including the Lower School Science Lab and Makerspace upgrades, reflect this commitment. Both spaces were feature systems for sorting and repurposing supplies, such as cardboard and other craft materials. Sustainability is also embedded into our curriculum, as students regularly engage in projects that incorporate recycled and repurposed materials. Through hands-on learning during STEAM Lab or scientific exploration in the Lower and Middle School Science Labs, students are actively involved in understanding and practicing sustainable design. We are currently concluding a year-long Campus Master Planning project with Legat Architects. Through their work, we have designed a sustainable campus for the future, using Green Building Standards at every step.

B. Water and Grounds

9. Can you demonstrate a reduction in your school's total water consumption from an initial baseline or describe your best practices to limit water usage? For example, calculate your change in water usage (in gallons per occupant) over a specified period of time, or a reduction in water used for irrigation.

The reduction in water consumption at the Avery Coonley School is an ongoing effort led by the Robotics Team (Cyber Seahorses). Leveraging five years of historical water usage data from the school campus, the team tracks and analyzes trends over time to identify opportunities for improvement. They have conducted a water audit to assess current consumption and develop strategies for reducing water usage, including optimizing the sprinkler system and addressing potential gaps in the downspouts. The students are comparing water usage per occupant to baseline data to evaluate the effectiveness of implemented watersaving measures. Once their analysis is complete, they will present their findings, highlighting reductions in water consumption, whether through a decrease in gallons per occupant or a reduction in irrigation water use. These efforts reflect the school's commitment to sustainability and resource conservation, empowering students to lead impactful environmental initiatives. Best practices already implemented to limit water usage include the installation of low-flow faucets and fixtures, water-saving toilets, and 3-D printed/motion-detecting sinks to automatically shut off the water when not in use, thereby preventing freezing during colder months. Additionally, moisture monitors have been placed in key areas to ensure efficient water use. Strategic use of irrigation systems and sprinklers, along with the installation of a rain barrel, helps to minimize water waste. The rain barrel collects water from the downspouts, which direct rainwater to support the school's native wildflower garden, further reducing the need for additional irrigation.

10. What percentage of your landscaping is considered water-efficient and/or dedicated to ecological or instructional use? Describe the kinds of plants used and locations:

An estimated 40% of the landscaping is considered water-efficient or dedicated to ecological and instructional use. Recent developments, particularly in the parking lot area, have incorporated plants that support water efficiency. In addition to these plants, we are mindful of the wetlands on campus and have conducted careful assessments to preserve and enhance these areas. Our landscape includes a rock pond, which helps manage water runoff and provides natural habitats for local wildlife. These rock ponds, along with several wetland areas rich with native plants like sedges, act as natural sponges, absorbing excess water during heavy rains and flooding events, further contributing to our sustainable water management practices. The Lower School's STEAM classes also focus on promoting ecological awareness, particularly through the Wildflower Native Plant Garden. This garden features a variety of native plants, including Milkweed (*Asclepias spp.*), Purple Coneflower (*Echinacea purpurea*), Black-eyed Susan (*Rudbeckia hirta*), Butterfly Weed (*Asclepias tuberosa*), Wild Bergamot (*Monarda fistulosa*), and Blazing Star (*Liatris spicata*). These plants support local wildlife, such as pollinators, and educate students about the importance of native plants and sustainable landscaping.

11. Describe the water sources used for irrigation, including any cisterns or rain barrels.

The Avery Coonley School sources its water primarily from Lake Michigan through the DuPage Water Commission, which purchases and distributes water from the City of Chicago via their Department of Water Management. In addition to the municipal water supply, ACS uses a student-designed rain garden to manage runoff and filter excess water into the soil, supporting local biodiversity and mitigating the impact of heavy rainfall. A rain barrel collects water from the campus downspouts, which irrigates this garden.

12. Describe any efforts to reduce storm water runoff (e.g., rain gardens) and/or reduce impermeable surfaces.

The aforementioned rain barrel irritates our native wildflower garden. In addition, a rain garden planted by students along the northwest corner of the building plays an essential role in filtering excess water away from the school and promotes natural infiltration into the soil. It also manages water flow into a nearby wetland. We place a high priority on preserving these vital ecosystems. As we develop our campus master plan, we prioritize the conservation of these natural spaces by planning further rain gardens, rain barrels, and expansion that is mindful of these wetlands.

C. Waste and Chemicals Management

13. Describe the strategies you use to divert solid waste (e.g., trash, cafeteria waste, paper, or landscape waste) from landfills due to reduction, recycling and/or composting. Complete the calculations below or provide reduction rates:

We are committed to reducing solid waste and diverting materials from landfills through recycling and waste reduction strategies. We follow the municipal waste collection system in Downers Grove, sorting non-recyclable waste, recyclables, and yard waste for appropriate disposal, with yard waste being used for mulch. As part of their curriculum to study the properties of matter, the Group 5 class conducts a trash sort to learn about waste segregation. "Go Green" signs guide students in recycling for the TerraCycle program, which funds more green initiatives. Recycled items like bottles, cans, and paper are repurposed for Makerspace projects, where compostable PLA filaments are used, and proper disposal is ensured. Students contribute by collecting cans on designated days to restock the recycled inventory in the Makerspace. While the waste diversion program is still evolving, these efforts provide valuable learning opportunities and contribute to reducing our environmental impact, with plans to expand recycling and improve diversion in other areas of the school.

14. What percentage of your school's total office and classroom paper content is post-consumer material, fiber from forests certified as responsibly managed and/or chlorine-free?

100%

15. List the types and estimated quantities of chemicals (e.g., laboratory materials, cleaning products, pesticides) managed at your school, and how they are stored, disposed of, and minimized:

Cleaning and maintenance chemicals are securely stored in a ventilated area and tracked through an inventory system managed by the Director of Maintenance. This system ensures accurate stock levels, proper storage, and efficient use. Chemicals are labeled with safety information, and outdated or unused items are disposed of following local disposal regulations. Regular checks maintain compliance and safety. ACS employs various cleaning agents, including disinfectants, multipurpose cleaners, glass and bathroom cleaners, floor cleaners, and degreasers, alongside a UV-light air sanitizing system installed in 2020 to ensure a clean and hygienic environment.

16. Describe how your school purchases environmentally preferable products for use by students and staff:

Sustainability is woven into school life through eco-friendly practices in projects and classroom activities. In a recent kindergarten project, students used recycled cardboard, laser-cut for precision, and eco-friendly 3D printing filament to build a pinball machine, saving \$500 on new materials. ACS also partners with local public libraries to borrow resources, reducing waste. Students regularly use recycled materials like cans and cardboard for creative, hands-on projects like the Group 7 rollercoaster build, promoting critical thinking and environmental responsibility.

D. Alternative Transportation

17. What percentages of your students walk, bike, bus, or carpool (2 or more students in the car) to and from school? Please explain how these numbers are obtained and calculated, and describe any improvement in this area over time.

The Avery Coonley School faces unique transportation challenges due to its landlocked location and dispersed residences of its student body, resulting in nearly 97% of its students utilizing car transportation for drop-off and pick-up. To address these logistical and environmental concerns, ACS has acquired additional property to facilitate future improvements. ACS plans to survey parents about their current travel habits, including whether they walk, bike, carpool, or use electric or hybrid vehicles, to help identify opportunities for carpooling among families in nearby areas. In addition, ACS will raise awareness about the benefits of carpooling, encourage idle-free zones with signage, and explore other eco-friendly initiatives to reduce emissions and enhance community engagement.

18. Describe the plans or strategies to increase the number of students walking and biking to school.

We plan to promote walking and biking to school by integrating activities into the curriculum and culture. Our health classes can promote events like "Bike or Walk to School Day" to highlight physical, mental, and environmental benefits. Currently, students can complete walk-to-school permission forms, and the school provides areas for bike parking.

19. Has your school implemented any of the following? Check all that apply.	
	Designated carpool parking stalls.
	A well-publicized no idling policy that applies to all vehicles (including school uses).
	Vehicle loading/unloading areas are at least 25 feet from building air intakes, oors, and windows.

☐ Safe Pedestrian Routes to school or Safe Routes to School.

Describe activities in your safe routes program: We have staff and faculty that facilitate pick up and drop off.

20. Describe how your school transportation is efficient and has reduced its environmental impact:

The Avery Coonley School has improved transportation efficiency and reduced its environmental impact through strategies like staggered release times for Lower and Middle School students, reducing traffic congestion and vehicle idling, and improving traffic flow. A car identification system incorporating signage in individual cars and capturing of license plates on cameras further streamlines pickup, minimizing wait times and emissions. These efforts reflect the school's commitment to sustainable and convenient transportation.

21. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships:

We integrate sustainability into our curriculum through innovative practices and strategic partnerships. In collaboration with the Maple Grove Forest Preserve, ACS students, faculty, and volunteers engage in restoration projects like invasive species removal. We also partner with scientists such as Dr. Dieter Gruen, Dr. Don Wuebbles, and Dr. Andrew Hipp to lead STEAM projects on topics like plant phenology research, climate-focused weather stations, and environmental science fairs, providing hands-on learning and real-world insights into ecological stewardship. We continue to develop our innovative practices through events like hosting our annual TEDx events, which showcase student-led green innovations, including AI-powered hydroponic gardens. We continue to focus on acquiring various grants, like the \$100,000 ComEd rebate we recently received, and further community partnerships to help enhance campus sustainability and fund eco-friendly projects.

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

A. Environmental Health

 Describe your school's Integrated Pest Management (IPM) program, including any certifications earned, routine inspections, pest identification, monitoring, recordkeeping, and pest prevention activities.

The Avery Coonley School employs an Integrated Pest Management (IPM) program to protect biodiversity and sustain native ecosystems like its wetlands. Partnering with Midwest Grows Green, an initiative of the IPM Institute of America to reduce pesticide use, safeguard pollinators, and enhance water quality. A local science teacher and biological weed control expert, Todd Breitenfeldt, has been brought in to educate students on invasive species and promote conservation strategies. Regular wetland assessments, invasive species monitoring, and habitat restoration by the school further support native plant populations.

2. Describe the efforts or practices you have in place to minimize or eliminate the use of pesticides, both indoors and outdoors.

We prioritize student and staff safety by actively addressing potential hazardous contaminants. We implement Integrated Pest Management (IPM) practices to minimize pesticide use, and our partnership with the IPM Institute supports us with best practices and science-based solutions to enhance pesticide safety and environmental stewardship. Additionally, we use low-VOC materials, monitor air quality, and conduct on-site testing for a healthy and secure environment.

- 3. Describe the actions taken or the practices your school employs to minimize or eliminate exposure to the following specific hazardous contaminants (if applicable):
 - a. Elemental Mercury

- b. Carbon Monoxide from fuel burning equipment or appliances
- c. Radon
- d. Chromated Copper Arsenate in wooden playground equipment
- e. Others (e.g., Lead, Asbestos or PCBs)

ACS minimizes carbon monoxide risks by maintaining fuel-burning equipment, conducting routine safety inspections, ensuring proper ventilation, and installing CO detectors to monitor air quality and alert to potential hazards. ACS monitors radon levels to stay below EPA-recommended limits, addressing elevated levels with prompt remediation like sealing cracks and improving ventilation. Regular testing ensures safe air quality for all occupants. ACS does not use chromated copper arsenate (CCA)-treated wood in any of our playground equipment or outdoor structures. We have invested in modern playground equipment made from non-toxic materials to ensure the safety of our students, and all outdoor spaces are carefully maintained to support a safe and healthy environment for physical activity.

ACS ensures all school materials, such as paint, chemicals, and building materials are lead-free, replacing and sealing older windows and conducting regular inspections to maintain compliance. Any lead-based materials are safely addressed following local and federal guidelines. ACS ensures all school materials, such as paint, chemicals, and building materials are lead-free, replacing and sealing older windows and conducting regular inspections to maintain compliance. Any lead-based materials are safely addressed following local and federal guidelines. ACS regularly checks for PCBs in older light fixtures and

equipment, promptly removing and replacing any found with non-toxic, eco-friendly alternatives. ACS prioritizes safety through regular drills (fire, lockdown, severe weather) and ALICE (Alert, Lockdown, Inform, Counter, Evacuate) training for staff and students. We partner with the local fire

4. Describe policies and practices in place to promote security and life safety.

department and law enforcement to keep safety protocols current and effective.

Our campus has been in its current location since 1929, with most of the original buildings and grounds still in use. Major building projects that enhanced the campus were completed in 1979 (east wing to the original building); 1993 (new school entrance, library, gymnasium, lunchroom, and Performing Arts Center); 2006 (middle school addition); and 2015 (major renovations to library and 1929 building). ACS works closely with local, state, and federal agencies to ensure regulatory compliance, with regular inspections conducted by licensed vendors. A cleaning company maintains daily sanitation standards, while the Director of Facilities oversees inspections and updates logbooks. ACS uses a work order system and preventative maintenance schedule to support its facilities. The School Board's Building and Grounds Committee also reviews facilities, equipment, and upcoming projects. In 2022-2023, the school introduced a visitor sign-in system with background checks.

5. Describe actions your school takes to prevent exposure to asthma triggers in and around the school, such as animals in the classroom, sanitation, or other airborne contaminants.

The Avery Coonley School minimizes asthma triggers by maintaining a clean, healthy environment with regular deep cleaning, HEPA filters, and regular dusting and sanitation. The ventilation system is maintained with filter exchanges and UV lights to sanitize the air. Policies limit animal exposure, and the HVAC system controls humidity. Asthma-friendly cleaning products are also utilized school-wide. ACS educates staff and students about asthma triggers and conducts air quality testing as needed, ensuring a safe environment for students with respiratory sensitivities.

6. Describe actions your school takes to control and prevent leaks, moisture, condensation, and excess humidity; and to promptly cleanup mold or remove moldy materials when it is found.

We actively manage moisture, condensation, and humidity levels to prevent mold growth. Regular

inspections and maintenance of the building's infrastructure, such as roofs, plumbing, and ventilation systems, help identify and resolve potential leaks or moisture issues. We installed proper ventilation, dehumidification systems, and sensors to alert staff of flooding or excess moisture. Routine cleaning schedules ensure that any spills or leaks are quickly addressed.

7. Our school has installed local exhaust systems for major airborne contaminant sources.

⊠Yes □No

If Yes, list the rooms with these features and their uses:

Yes, we utilize fume hoods in the science labs and our exhaust system in the science labs is integrated with our HVAC system.

8. Describe your school's preventive maintenance program for the building's ventilation system, including unit ventilators to ensure it is clean and operating properly:

A comprehensive schedule of regular inspections, cleaning, and upkeep ensures optimal indoor air quality. Routine assessments of the ventilation systems, including HVAC units, air ducts, filters, and exhausts, are conducted by trained personnel. Scheduled filter replacements or cleanings are carried out to prevent dust and debris buildup, which can obstruct airflow and diminish air quality. In the BAS (Building Automation System), indoor and outdoor dampeners adjust air quality.

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, including any periodic measurements and record keeping:

We regularly inspect and maintain our ventilation systems, including HVAC units and air exchange systems, to ensure they function optimally. This involves monitoring airflow rates and adjusting systems to bring in a sufficient amount of fresh outdoor air while expelling indoor air. Additionally, we might utilize natural ventilation by strategically opening windows and doors when weather conditions permit. The BAS (Building Automation System) system can be adjusted to ensure adequate ventilation.

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:

HVAC systems, air filters, and ventilation are regularly maintained to ensure optimal air quality. Green cleaning practices reduce chemical exposure, and moisture management prevents mold growth through leak checks and humidity control.

11. Describe your green cleaning policies, equipment, products and practices, and green cleaning certifications or awards:

The green cleaning policy uses non-toxic, biodegradable, and sustainable products, such as vinegar, baking soda, and plant-based extracts. It also reduces waste by using washable microfiber cloths and reusable mop heads instead of disposable materials. An onsite washer and dryer is utilized to sanitize these materials.

B. Nutrition and Fitness

- 12. Does your school employ the programs below to promote nutrition, physical activity, and overall school health?
 - ☐ Participates in a Farm to School program or similar local food program.

☑ Our school has an on-site garden.
$\hfill\Box$ Our cafeteria provides fresh meals daily with healthy choices for students.
oximes At least 50% of our students' annual physical education takes place outdoors.

Give details about programs and successes: The Avery Coonley School's Health curriculum, aligned with National Health Education Standards and the CDC's WSCC (Whole School, Child, Community) Model, promotes self-awareness, social responsibility, and wellness by teaching students essential skills for physical, mental, and emotional well-being. We also run unique programs like the award-winning aforementioned Hydroponic Smoothie Program, the Lower School Science Native Garden Project, and an afterschool Sticky Fingers Nutrition Club. We are also in the process of selecting a cafeteria vendor that will provide fresh meals daily with healthy choices for students.

13. Provide specific examples of actions taken which are innovative or unique practices and partnerships:

The Avery Coonley School's Summer Program benefits from strong partnerships with community and academic organizations. Northwestern University Center for Talent Development collaborates with the school through projects and class offerings. These classes are based on a gifted status requirement, with enrollment determined through standardized test results. In addition to academic collaborations, the school is committed to student and staff well-being. A wellness station, including an outdoor obstacle course, encourages physical activity and supports mental health. For faculty and staff, wellness initiatives include group fitness, pickleball, nature walks, mindfulness, and art stations. Relaxing outdoor spaces and a massage chair are provided in a quiet room as part of the staff lounge. Hydroponic gardens make fresh greens available for staff lunches as well. Sustainability efforts are also central to the school's mission. Recycling stations encourage proper sorting, and reusable dishes with a dishwasher in the staff lounge help reduce waste. The Green Ribbon Initiative, supported by a student team from the Gies College of Business, has been instrumental in advancing these sustainability goals. Faculty are encouraged to engage in ecofriendly practices, such as rinsing cans before recycling. A staff-led committee called Peer Voices meets monthly to discuss employee well-being and initiatives to improve quality of work life. Novel partnerships are formed with organizations like the Morton Arboretum, Maple Grove Forest, and Argonne National Laboratory to provide environmental and scientific learning opportunities for students.

14. Describe how outdoor education, exercise and recreation are promoted within the curriculum and outside the classroom.

We promote outdoor education and physical activity through a variety of enriching experiences. The campus features a pool, a rock pond, a ropes course, and multiple playgrounds, offering opportunities for exercise, teamwork, and problem-solving opportunities. Students also explore local ecosystems through forest preserve walks and hands-on science projects like the Vernal Window Project, which looks at canopy green-up, soil respiration, frost tubes for ground temperature, and snowpack to study the effects of climate change on the health of our adjacent forest. Physical education is integrated into outdoor spaces, and teachers are encouraged to hold outdoor classes whenever possible. The school's fall community Family Fun Day and student-led Hydro Bloom initiative further support wellness and sustainability. As part of its strategic plan, ACS is committed to making outdoor education a regular part of student life.

15. Describe efforts to improve nutrition, health, fitness of students and staff, highlighting innovative practices and partnerships:

The Avery Coonley School promotes health, nutrition, and fitness through holistic programs for students and staff. The Physical Education and Health programs emphasize strategic thinking, positive social interactions, and wellness practices like movement, nutrition, sleep, and stress management. The updated

Hydro Bloom Smoothie Program teaches nutrition and reductions in carbon footprints with locally-sourced food, while the school ensures balanced meals and integrates farming and nutrition into the curriculum. For staff wellness, ACS offers wellness stations, a staff lounge with nutritious snacks, fresh-cut greens from the hydroponic gardens, and monthly events to provide community building. Partnerships with organizations like the Morton Arboretum and Maple Grove Forest Preserve enhance outdoor and environmental education. The Health Department significantly reduced its carbon footprint by pivoting from paper data collection to digital with the arrival of a new nurse and new head of school. The implementation of electronic medical records (EMR) decreased the department's annual volume of paper from approximately 5000 sheets per year to zero. This additionally lessened the need for printing, thus lowering our use of ink cartridges which produce greenhouse gases, chemical pollution and plastic waste. An e-fax was purchased which diminished the need for printing even more. It further improved efficiency. Other medical waste produced by the health department, such as expired medications and batteries used by medical equipment, are disposed of according to EPA standards. The cardboard packaging of products are either repurposed by the art department or recycled. Our students are requested to hydrate often and have a reusable water bottle over the plastic bottles than end up littering the land, ocean, and filling landfills. The faucets in the health department are motion-sensored to prevent water from running. The presence of a full-time nurse onsite leads to a healthier population by limiting the spread of illness and disease, keeps students in school longer because treatments can be provided on site, and makes school activities safer.

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

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16.	Does your school use a Coordinated School Health approach or other health-related
	initiatives to address overall school health issues?
	⊠ Yes □ No
	If yes, describe the health-related initiatives or approaches used by the school:
	The Social Emotional Learning (SEL) department partners with outside agencies to create presentations for
	middle school students and their families. These presentations focus on topics such as the at-risk qualities
	often found in gifted students and drug prevention education in the upper grades. In-Class SEL Lessons
	occur in advisories and homerooms throughout the school year, ensuring continuous engagement in
	emotional and social learning for students. Enrichment "Gatherings" help provide a positive school climate
	giving students the chance to connect and build community. Our Home and School Parent Association also
	helps to fund community-wide programs like the Illinois Storm Chasers. A Zones of Regulation
	curriculum has been implemented to teach children self-regulation and emotional control. The Gifted Ed
	Podcast has been developed to highlight SEL topics for the community, with an emphasis on professional

17. Does your school partner with any outside institutions, businesses, clubs, nonprof	it
organizations, or community groups to support student health and safety?	

development for teachers

If yes, describe these partnerships:

Downers Grove Fire Department: We work with the fire department to bring the "Learn Not to Burn" program to 3rd-grade students, focusing on fire safety and prevention. Downers Grove Police Department: We work with the DGPD on Active Shooter and Intruder training (ALICE) Outdoor Team-Building Activities: The Physical Education program at Avery Coonley School includes adventure and outdoor education units for students from Kindergarten through 8th grade. As part of this comprehensive program, both 3rd and 6th-grade students engage in outdoor team-building activities designed to promote physical health and support a sense of connectedness with their peers. These activities, taught by our highly qualified faculty, provide meaningful and ongoing opportunities for personal growth and collaboration. Group 3 attends Camp Edwards for team-building experiences. Group 6 attends Camp Manitoqua, which provides similar outdoor health and team-building opportunities. Group 5 Team-Building: Group 5 students participate in team-building activities at The Forge, further promoting outdoor health and teamwork.

Additionally, we are working on strengthening partnerships to provide broader health and safety benefits: Insurance Partnerships: Through our insurance provider, Blue Cross/Shield, we have access to wellness programs that benefit both students and staff. Drug Prevention Programs: Students in grades 7 and 8 participate in a drug prevention program designed to educate them about healthy choices. CPR and Health Training: Our school provides CPR training and health education programs through Vector Solutions to ensure students and staff are prepared for emergencies. Puberty and Health Education: We partner with Cander Health to provide puberty and health education to Group 5 students, ensuring they receive accurate and supportive information during critical developmental stages. We are also working to expand our partnerships and create international connections: French Student Exchange: We have a long-standing partnership with French schools, including an exchange program with Joseph Niel in Muret, France and a Group 8 immersive trip to Quebec. This initiative includes pen pals and cultural exchange opportunities to promote global awareness. The Avery Coonley School is actively seeking funding for several initiatives to enhance its environmental education and sustainability efforts. ACS aims to install a weather station, providing students with real-time data that will enrich lessons in environmental science, weather patterns, and sustainability. Additionally, funding is being pursued for electric vehicle charging stations to promote sustainability and serve as a resource for the community's electric vehicle owners. ACS is also seeking grants to support the development of environmental education programs focused on climate change, biodiversity, conservation, and sustainability, incorporating both classroom learning and field-based experiences. Furthermore, Avery Coonley is working toward achieving green building certification, such as LEED, to improve the environmental sustainability of its facilities through energy-efficient construction and eco-friendly materials.

18. Describe your school's curriculum content for student health and fitness as well as its applied learning:

Our physical education program is designed to develop physically literate students who have the knowledge, skills, and confidence to engage in a variety of physical activities. The program follows the SHAPE America National Standards, ensuring that students develop not only physical fitness but also an understanding of the importance of an active lifestyle. Additionally, the curriculum aligns with the Meaningful PE framework, which prioritizes key elements such as social interaction, challenge, personal relevance, delight, fun, and motor competence. Through a well-rounded curriculum, students participate in activities that promote cardiovascular health, strength, flexibility, and coordination while also focusing on social skills and teamwork. Applied learning opportunities are embedded in the program, encouraging students to actively practice and apply the skills they learn in real-world scenarios. This approach emphasizes physical health, teamwork, and personal well-being, helping students cultivate habits that support a lifelong commitment to fitness and wellness. Students also participate in adventure and outdoor education units that integrate physical education with environmental stewardship, providing meaningful, hands-on experiences in both individual and team settings.

Pillar 3: Effective Environmental Literacy

A. School Culture of Sustainability

1. Describe what *sustainability* means to your school or district in particular. How is sustainability included in your mission to educate students?

Sustainability is a key element of the Avery Coonley School's day-to-day operations and strategic and master planning, aligning with our mission to support intellect, curiosity, and creativity in gifted and high-achieving learners. Integrating environmental stewardship, resource management, and social responsibility into the curriculum and school culture enhances gifted students' academic development and critical thinking. This immersive approach encourages students to explore global issues, reinforcing their role as responsible, informed citizens and life-long learners.

2. What role has the administration played in the culture of sustainability at your school?

Director of STEAM Innovation, Kenny Bae, leads sustainability initiatives and supports his teachers to take risks with new initiatives. With a background in environmental stewardship, including prior receipt of a Green Ribbon Award at his previous school, Kenny drives projects, grant writing, and collaboration through hands-on

efforts. Under his leadership, ACS has adopted more green practices and is now pursuing LEED certification for its buildings. Head of School Dr. Kirsty Montgomery amplifies these achievements through newsletters and provides overall leadership. Business Manager Geraldine White supports the financial aspects of new initiatives and spearheads ways to eliminate unnecessary costs. Maintenance Director Lee Kopacz has found new ways to implement sustainable building practices by hiring preferred vendors and sourcing more sustainable products. From our admissions director who finds families invested in our mission to our division leaders who support teacher initiatives, our school is staffed with individuals who are committed to embedding sustainability as a core value.

3. What practices, working groups, or committees does your school employ to help ensure effective environmental and sustainability education? Provide specific examples of actions taken.

Sustainability is integral to student activities and school-wide initiatives. The parent-led Go Green Committee organizes educational events and advocates for local conservation efforts like those at Maple Grove Forest. One example is a forest clean-up day. The Hydro Bloom Club, Cyber Seahorse Robotics team, and ACS Student Council support Green Ribbon School initiatives through some of the projects mentioned earlier. Unique classroom learning opportunities like Maple Tapping and The Vernal Window Longitudinal Study empower students to be proactive stewards of the environment. The PE Instincts for Survival program enables students to explore environmental health through physical activities, and the TEDx Green Frontiers event showcases student-led presentations on sustainability. The master plan and administration guide long-term sustainability goals, ensuring that environmental practices are central to both infrastructure and curriculum.

4. Does your school have a green team, garden club, or a community green committee on sustainability? Who participates? What kinds of project or activities do they undertake? What roles do they play in the school?

Sustainability is a key focus of student engagement and innovation, driven by various student-led club initiatives. The Middle School Hydro Bloom Club runs projects like the AI-powered vertical garden, promoting sustainable urban agriculture, and they mentor the Lower School Student Council members in their own Hydro Sprouts Club. The Middle School STEAM Club is developing methods to study weather patterns, which will contribute to the longitudinal study on climate change being done through the Vernal Window Project. The Lower School LEGO Robotics Club uses recyclable materials in projects, leading environmental responsibility and is spearheading the process of the aforementioned water audit. ACS also supports biodiversity with a native outdoor garden and encourages interest in environmental health through the Doctors of Tomorrow Club.

5. Describe other ways your school integrates sustainability into daily habits and culture of the school's staff, volunteers, students and community (e.g., recycling days, no bottled water, murals, themed events, virtual backpacks, etc):

Sustainability is integral to the daily practices of students, staff, and the entire community. Students are encouraged to carry water bottles to promote hydration and cognitive performance and reduce environmental waste. Brain Gym, a revolutionary program introduced into the Pre-Kindergarten and Kindergarten is a series of movements and a focus on hydration that promotes learning by efficient communication among the many nerve cells and functional centers located throughout the brain and sensory-motor system. The campus is also equipped with color-coded recycling and compost bins, and the "Go Green" initiative uses digital signage to reduce paper use. Students in Middle School operate in a 1:1 tablet environment to submit work digitally and reduce the amount of paper consumed. The school also organizes Maple Grove Forest Restoration Days, involving the community in local environmental efforts, and promotes digital communication to minimize paper waste.

6. Any other school practices, visions, projects, plans or information you want to include to showcase the environmental work your school has achieved?

We are committed to sustainability through ongoing initiatives and partnerships that promote environmental stewardship. We are building stronger connections with organizations like the Morton Arboretum and Maple Grove Forest to create educational opportunities focused on ecological preservation and biodiversity. Our

campus features AI-powered hydroponic gardens, which enhance the environment while providing fresh produce for our smoothie program and offering hands-on experience in urban agriculture. Additionally, the middle school STEAM club is planning to build a weather station on the roof to collect climate data, complementing the vernal window research project and studying the impact on the nearby Maple Grove forest. Our Master Plan Project integrates sustainability into our infrastructure, promoting energy efficiency, green building materials, and environmentally friendly designs.

B. Curriculum and Pedagogy

7. Does your school have a written definition and requirement for environmental literacy? Is there an assessment required?

Environmental literacy is defined as the knowledge, understanding, and skills needed to make informed, responsible decisions about the environment. It includes an awareness of natural systems, the ability to recognize human impacts on the environment, and the critical thinking skills necessary to address environmental challenges. Our approach supports a sense of stewardship, encouraging students to actively engage in preserving and improving the world around them. While there is no formal assessment, these principles are integrated into students' learning experiences, helping them apply environmental literacy in their daily lives.

8. How does your school use sustainability and the environment as a context for learning STEM? How is sustainability and the environment incorporated into the curriculum in all areas?

The Avery Coonley School integrates sustainability into STEAM education by incorporating real-world environmental concepts across all subjects. Central to this is the Maple Grove Forest, an outdoor classroom where students engage in hands-on activities like maple syrup tapping and nature research, promoting environmental awareness and scientific inquiry. The Green Faction of the STEAM Club also plays a key role, offering students opportunities to work on green projects, enter contests, and apply for environmental innovation grants. Through initiatives like TEDx and the Group 7 Science Fair, students investigate projects on topics such as water filtration and solar panels. Through this, students develop problem-solving and technical skills while addressing environmental challenges.

9. How does your school use sustainability as a context for learning green technologies and/or career pathways?

Sustainability is integral to learning about green technologies and career pathways. Through our Makerspace, students engage in hands-on projects using recycled and sustainable materials to explore renewable energy, energy-efficient technologies, and eco-friendly design. Our partnership with the Morton Arboretum, highlighted by a 2016 collaboration between Middle School Science Chair Donna Zagotta and the Curator of the Morton Arboretum, Dr. Andrew Hipp, allows students to design and conduct field projects alongside scientists, deepening their understanding of environmental science. These experiences help students explore potential careers in green technologies, environmental science, and sustainability, equipping them with technical knowledge and critical thinking skills to address environmental challenges. This has resulted in a high proportion of alumni who are currently pursing STEAM careers.

10. Describe students' outdoor learning experiences at multiple grade levels. How do they support curriculum content?

We offer a rich array of outdoor learning experiences that enhance the curriculum across grade levels. A highlight is the outdoor low ropes challenge course located at the edge of the Maple Grove Forest Preserve, where students engage in team-building activities and problem-solving exercises that complement both physical and academic goals. Younger students apply engineering and physics concepts through obstacle challenges, while middle school students explore team-building by interacting with nature. Extra-curricular clubs like the STEAM Club, sports, and outdoor education, including maple syrup tapping and native plant studies, further deepen students' understanding of science, technology, and sustainability.

11. If applicable, describe how the school grounds are devoted to environmental education uses:

The Avery Coonley School integrates its grounds into environmental education by using the Maple Grove Forest and surrounding areas as active learning spaces. Students explore nature trails, engage in activities like maple tapping, and study native plants as part of their science curriculum. Longitudinal studies on the vernal window offer Honors Biology students an opportunity to study the health of the neighboring forest. Physical Education incorporates outdoor survival skills, while the Literacy Department uses the outdoors for journaling and blending creative and scientific writing. These and more varied outdoor activities and environmental projects provide students with rich, interdisciplinary learning opportunities, blending academic subjects with real-world sustainability practices.

C. Community Involvement

12. Describe how your school promotes student and teacher engagement with the community and civic involvement outside the school? Have there been green themes to their work?

We promote community engagement through various outreach initiatives, including partnering with the DuPage Forest Preserve for environmental projects like tree planting and removing invasive species. We also encourage sustainability through the Go Green initiative and support community service efforts such as sock recycling. School-wide initiatives promote donations to the Humane Society and other charitable organizations, and our Student Council annually collects donations for the Ronald McDonald House. Donna Wetta and Jennifer Garetto, our two middle school science teachers earned a Green Classroom Professional Certificate to integrate sustainability into their curricula and advise leaders on sustainable building and green initiatives. We also collaborated with Congressman Sean Casten on climate advocacy through our TEDx event and partnered with local organizations to empower students in environmental and civic leadership.

13. Describe your partnerships to help your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships:

The Avery Coonley School's partnerships with the Morton Arboretum and Maple Grove Forest are central to its environmental education and sustainability efforts, connecting academic learning with real-world experiences in conservation and ecological studies. Through the Morton Arboretum, students engage in botanical research, field trips, and workshops that deepen their understanding of plant biology, conservation, and the impact of human activities on ecosystems. Maple Grove Forest serves as an outdoor classroom for biodiversity studies, maple syrup tapping, and ecological restoration, linking classroom knowledge with environmental stewardship. These partnerships also promote community engagement, with students participating in tree planting and invasive species removal through collaborations with the DuPage Forest Preserve. Additionally, partnerships with organizations like the Department of Energy open students to career paths in environmental sciences and green technologies, supporting both civic responsibility and career exploration in sustainability.

14. Describe how your school shares environmental education or sustainability events with other schools or organizations?

We share our commitment to environmental education and sustainability through impactful initiatives like our TEDx "Green Fronter: Sustainable ideas" event, which provides a global platform for students, educators, and professional thought leaders to present innovative ideas on topics such as climate change, sustainability, and conservation. With an audience of over 42 million via the TEDx YouTube channel, this event showcases the school's initiatives while inspiring other institutions to adopt green practices. Additionally, ACS collaborates with local and national organizations, earning local and national recognition and media coverage for its projects on hydroponics and AI-powered gardens and research on air quality. These activities empower students to lead sustainability efforts, extending the school's influence within the community and globally.

D. Professional Development

15. In your required staff professional development for all teachers, is sustainability education or environmental education training included? If so, please describe what this entails.

The Avery Coonley School integrates sustainability and wellness into staff professional development through hands-on learning labs and health-focused sessions. These sessions equip educators with tools to enhance environmental literacy and incorporate sustainability into their teaching. Wellness sessions, including mindfulness practices, stress-relief techniques, and nature walks, promote mental and emotional well-being while strengthening connections to the natural world. By blending health and environmental education, the school supports staff well-being and cultivates a culture of environmental stewardship across its community.

16. What workshops or professional development events have your teachers attended themed around environmental topics?

We emphasize professional development to support environmental education and wellness. All staff receive Vector Solutions training and can apply for internal Morse Grant opportunities to pursue areas of passion in their curriculum. Donna Wetta, Science Department Chair, and Jenny Garreto have both participated in the Earth Partnership for Schools Restoration Program, sponsored by the DuPage County Forest Preserve and Chicago Botanic Garden, to facilitate ecological restoration projects at ACS.

17. Have your teachers or staff earned any certifications in environmental education? What kind have they earned?

Middle School science teachers received Green Classroom Professional Certifications.

18. Have any of your teachers or staff received any awards related to environmental education?

Donna Zagotta was awarded an Audrey Masters Anderson Teachers as Partners Scholarship from the Morton Arboretum in 2011. Jennifer Garreto, in addition to her wide-ranging professional experience in support of her outdoor classroom teaching, Mrs. Garetto is a Golden Apple Finalist, and a Tech and Learning Leader of the Year finalist. In 2023-2024, Jennifer Garetto won the NEED (National Energy Education Development Project) Illinois School of the Year, the National Project Green School Award, and fourth place in the Illinois Rise challenge. Kenny Bae won a lifetime achievement award from the Green School Project in 2022. In 2021-2022, Kenny Bae won the NEED Illinois School of the Year. Adam Metcalf has been recognized for his teaching through the following accolades: Northeastern District Young Professional Teacher of the Year (2011), Northeastern District Highlight School Program Award (2011), Illinois Young Professional Teacher of the Year Award (2011), Illinois Association for Health Physical Education Recreation & Dance Blue Ribbon Physical Education Awards (2010-2015) (2017-2022) (2023-2028), IAHPERD Elementary Teacher of the Year (2018), SHAPE America Midwest District Elementary Physical Education Teacher of the Year (2020).

19. Do any of your teachers or staff hold environmental education related volunteer positions or memberships?

\boxtimes	Environmental Education Association of Illinois
	North American Association of Environmental Education
	Children and Nature Network
	Northern Illinois Nature Preschool Association
	Chicago Wilderness
\boxtimes	Local environmental related clubs

Supporting Materials

Attach a minimum of three photos and a maximum of five photos with your application (photo size limit 5 MB). Please save your photos using descriptive language. For example, "Students conduct water quality tests in outdoor classroom with science majors from nearby university x" would be more helpful than "Photo 1." Photos should be action shots, not posed. By sending these photos, you are giving Illinois Green Alliance, the Illinois State Board of Education, and the U.S. Department of Education permission to use them.

Please provide a brief description (300 characters) for each:



Image 1:

Maple Grove Forest Restoration Day by ACS students



Image 2:
Bird's eye view of the Avery Coonley School Campus



ACS students conducting field research at the Maple Grove Forest.



Image 4:

ACS Hydrobloom Society receives two national awards for their AI-powered hydroponic garden.

Image 5:



ACS students were recognized at the TEDxThe Avery Coonley School Green Frontier event with Congressman Sean Casten and Dr. Dieter Gruen.

Submit Your Application

Applications must be received by 5:00 PM on Friday, December 20, 2024. Applications are being collected by the Illinois Green Alliance on behalf of the Illinois State Board of Education (ISBE). *Applications should be <u>no longer than 18 pages.</u>*

For an application to be considered, it must be **submitted via email** to <u>greenribbon@isbe.net</u>. Submittals via other methods will not be accepted.

Questions? Contact greenribbon@isbe.net.

