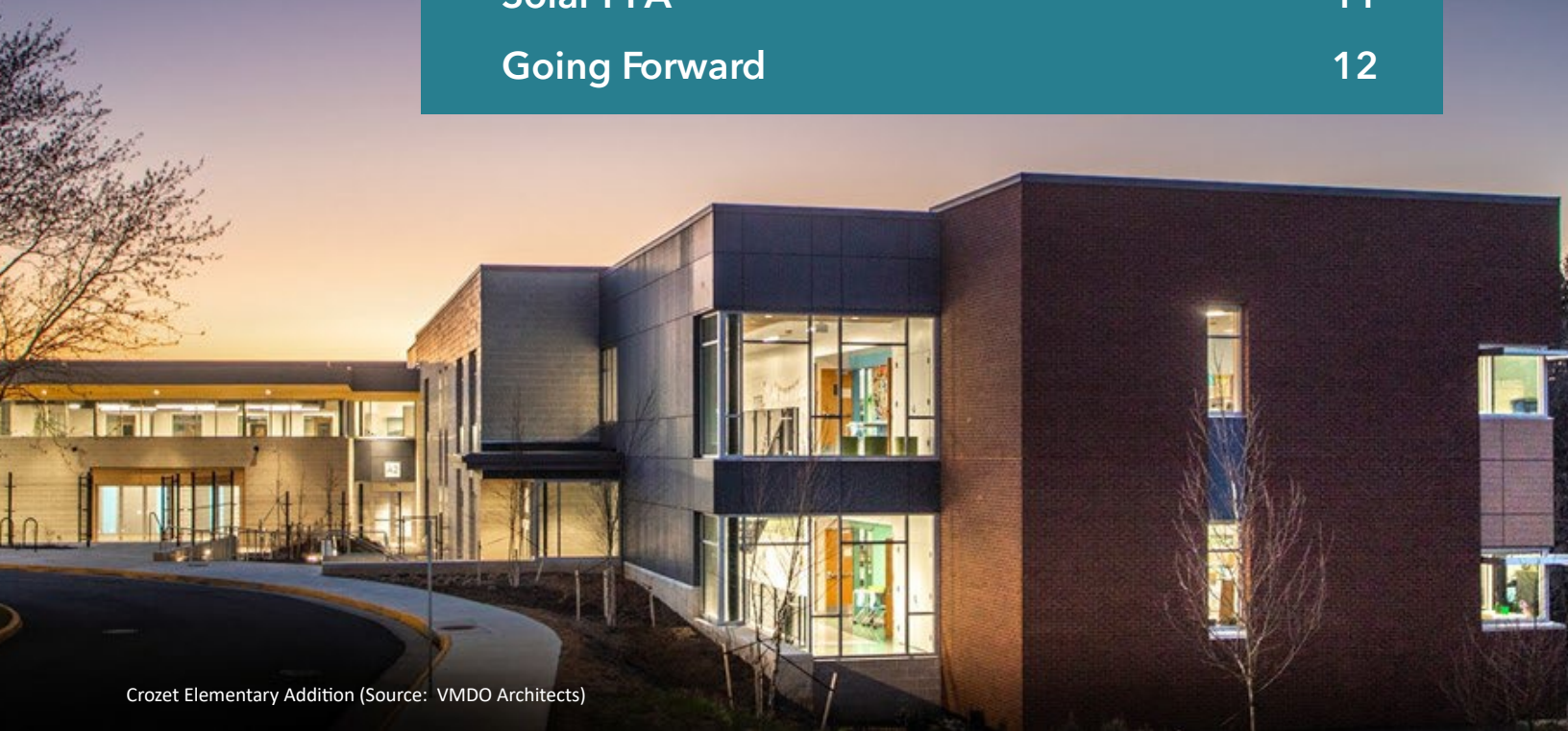


Advisory Committee for Environmental Sustainability (ACES)

2023 | 2024 Annual Report

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Crozet Elementary Addition (Source: VMDO Architects)

About ACES

The Advisory Committee for Environmental Sustainability (ACES) advises and informs the School Board and Superintendent about measures to help Albemarle County Public Schools (ACPS) develop and reach sustainability goals and foster an integrated series of tools and knowledge for the growth of environmental awareness. A significant part of ACES' mission will be to guide and coordinate the implementation of the County's Climate Action Plan as it relates to schools. Implementation will involve goals related to the five sectors of the Climate Action Plan: Transportation and Land Use; Buildings; Renewable Energy Sourcing; Sustainable Materials Management; and Landscape, Natural Resources, and Agriculture. In addition, annually the School Board may identify issues of interest for ACES to investigate and make recommendations.

Members

| Board Liaisons | |
|---------------------------|------------------------------------|
| Judy Le | School Board Liaison |
| Chuck Pace | School Board Liaison |
| Diantha McKeel | Board of Supervisors Liaison |
| School Board Appointees | |
| Joshua Grizzle | Jack Jouett District |
| Keith Boisvert | Rio District (at-large member) |
| Betsey Soulsby | Rio District |
| Rebecca Duff | Rivanna District |
| Greg Swanberg | Samuel Miller District |
| Christine Hirsh Putnam | Scottsville District |
| Elliot Rothman | White Hall District |
| Superintendent Appointees | |
| Sarah Delgado | |
| Bruce Vlk | |
| Vacant | Staff Representative |
| Elizabeth Frysinger | Student Representative |
| Amelia Scheer | Student Representative |
| Staff Members | |
| John Coles | Environmental Program Manager |
| Christina Pitsenberger | Director, Child Nutrition Services |
| Katina Dudley | Lead Instructional Coach |
| William Shifflett | Deputy Director, Transportation |
| Jamie Powers | Climate Protection Program Mgr |

ACES is comprised of thirteen members; eleven voting members: one selected by each School Board member, three representatives selected by the Superintendent, the Climate Protection Program Manager for Albemarle County and two non-voting student members selected by the Superintendent through an open application process.

School Board members make their appointments with a preference for members from their magisterial districts. Superintendent appointees include at least one member from ACPS staff from appropriate departments.

In addition, the Superintendent designates staff members to serve in advisory roles from each of the following ACPS departments: Instruction, Transportation, Child Nutrition, and Building Services.

Two School Board members and Board of Supervisors member serve as liaisons between ACES and their respective boards.

Focus Areas

A significant area of focus for ACES is the adoption and implementation of the County's Climate Action Plan as it relates to schools. The Climate Action Plan identifies the following sectors for climate action:

- Transportation & Land Use,
- Buildings & Renewable Energy,
- Sustainable Material Management,
- Landscape & Natural Resources.

During the first ACES meeting, it became evident that in addition to the areas of focus identified in the Committee Charter

and the Climate Action Plan, ACES also needed to prioritize incorporation of climate action into the schools' curriculum.



Meeting Format

ACES holds meetings six times a year, approximately bimonthly. Typically, meetings begin with updates from staff members on sustainability work happening in the schools including achievement of ACES goals, grants and funding opportunities, and other work advancing environmental sustainability in the division. Attention is then directed towards any follow-up agenda items from the previous meeting prior to diving into new business. During this time, the members work to construct the framework around a new initiative or SMART goal that staff can work on between meetings. Generally, this portion of the meeting begins with a presentation on the topic by an expert, then transitions to member discussion. The meeting wraps up with a decision on the topic for the following meeting. Meetings also offer an opportunity for members to visit successful sustainability projects and explore areas for future projects.

Sustainability Liaisons

The inaugural cohort of Sustainability Liaisons was formed in the spring semester of 2024. School Sustainability Liaisons extend the sustainability work happening in ACPS Operations departments into the classrooms, engaging with students and managing sustainability actions in each school. Stipends for this pilot group of 10 teachers, librarians, safety coaches, and other staff members were funded by a grant award. The pilot was extraordinarily successful, and plans are in place to expand the program for the 2024/2025 school year. Stipends for the upcoming school year will also be funded from grant awards.

While School Sustainability Liaisons are encouraged to engage students and staff in a wide variety of sustainability practices, they are specifically responsible for ensuring the success of the school's recycling and cafeteria composting programs. They identify opportunities for the reduction of carbon emission and environmental impact through behavioral or physical changes. Many dedicated teachers and staff have already been involved in this type of work. By formalizing this role, these individuals receive a small monetary incentive as well as legitimacy to further support the work they are doing.

Highlighting a few successes from the Spring 2024 cohort of liaisons:

- **Monticello High – Erikka Goff** led underclassmen students in a litter pick-up during SAT's. MHS's Environmental Club created window clings for the media center windows to make them more visible to birds and to prevent bird injuries and fatalities associated with collisions.
- **Murray Elementary – Liaison Calder McLellan** and the Environmental Club students at MEL hosted 2 community swaps where families could bring clothes and toys to give and take away reducing waste. The group also hosted 'Nude-Food Fridays' where

students were encouraged to bring food with no disposable packaging. The school kitchen participated too, minimizing waste from the kitchen.

- **Broadus Wood Elementary - Dimitra Aumiller** introduced first graders to the magical world of vermi-composting where they created worm towers, creating a buzz of excitement as they watched their wriggly friends do their part in the Learning Garden. Third graders took the message of sustainability home by setting up compost bins for their families and sharing composting dos and don'ts. Dimitra also wrote a grant that was funded by Allstate to start an Aquaponics system in the classroom, introducing sustainable gardening practices to students.

Sustainability Liaisons receive a stipend of \$815 per year, with an annual budget of \$19,560 across 24 schools. The first two years of this program will operate as a pilot study funded through grant money received from the US DOE. To ensure the continuity of this valuable program, ACES recommends ongoing budgetary funding for this program.

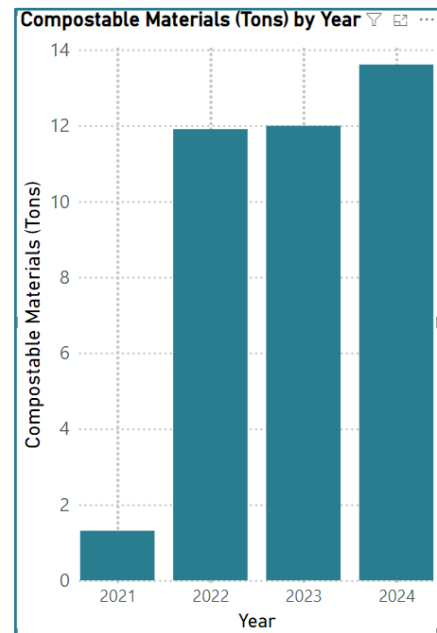


Composting Updates

Volunteers from ACES and the County's Solid Waste Alternatives Advisory Committee (SWAAC) in conjunction with ACPS's Sustainability Liaisons have dramatically boosted composting participation and education. Many additional schools began cafeteria composting programs in 2024. At several schools, Sustainability Liaisons have formed student led 'Green Teams' or Environmental clubs that monitor compost collection, helping their peers determine which waste items are compostable.

2024's mid-year composting report shows that ACPS has already collected more compostable waste in the first half of this year than any full year before, avoiding 5.75 metric tons of greenhouse gas emissions so far this year.

For the 2024/2025 school year, Child Nutrition is working to source additional compostable flatware and serving ware to further reduce the amount of waste being sent to the landfill.



Kitchen Waste Alternatives

While composting is one of the more sustainable ways to dispose of waste, it is still inherently wasteful. A preferred approach would be to avoid generating the waste at all. As school kitchens and cafeterias tend to be one of the largest generators of waste, ACES is eager to find solutions to reduce waste in these areas, starting with reusable trays and flatware.

ACES is especially interested in conducting a pilot study to test the feasibility of reusable flatware. In addition to reducing the amount of single-use plastic being consumed in

schools, this initiative provides students with an alternative viewpoint to our community's throw away culture. ACPS switched to plastic flatware many years ago to reduce labor costs associated with dishwashing and replacement of lost metal flatware. ACES understands is strongly in favor of reintroducing reusable flatware and serving ware at schools, starting with a pilot program at Murray Elementary.

Therefore, ACES urges the School Board to fund a pilot project to reintroduce reusable flatware at Murray Elementary costing approximately \$2500, primarily for additional dishwashing labor. During the study, staff and students will closely monitor various success measures including the count of unrecovered flatware throughout the pilot as well as the effectiveness of education on preventing the loss of flatware due to accidental disposal.

The students and staff at Murray Elementary are eager to host this pilot study. Murray Students attended an ACES meeting and a School Board meeting to voice their support.

Outdoor Lighting

At the February 2024 ACES meeting, members discussed opportunities for a more sustainable approach to outdoor lighting. Benefits of sustainable outdoor lighting include:

- Improved energy efficiency and reduced carbon emissions,
- Reduces light pollution, preserving night skies, and
- Minimizes impacts to wildlife.

ACES developed the following initiatives to move ACPS's outdoor lighting practices in a more sustainable direction.

- While nearly all of ACPS's outdoor lights have been converted to LED, a few stragglers have yet to be converted. Building Services will strive to upgrade all remaining fixtures to LED over the next 24 months.
- Exterior lighting at many of ACPS's facilities are equipped with photocell sensors that detect the amount of ambient light, turning on at dusk and staying on until dawn. Using Building Services building automation system (BAS) facilities, staff can dictate lighting schedules, turning lighting off during times when the building is unoccupied, reducing energy consumption. The Building Services Design and Construction Specifications Manual now requires all new construction and renovations to connect outdoor lighting to the BAS. Changes to outdoor lighting schedules will be evaluated by School Safety & Security staff prior to being implemented.
- The Building Services Design and Construction Specifications Manual requires that lighting at all new construction and renovation projects comply with the LEED light pollution reduction requirements which specify the maximum amount of light that can 'trespass' beyond the school site. Low color temperature lights are also specified.

Sustainable Design of New Buildings

For ACPS's new schools, Center II and the Southern Feeder Pattern Elementary, ACES was asked to prioritize sustainable features to be incorporated into the designs of these buildings. In accordance with School Board policy FEBCA, Sustainable Construction, drafted by ACES and approved by the School Board in 2023, the two buildings were chartered to achieve net-zero readiness and a certification of LEED Silver or better. In addition to this, ACES members were asked to prioritize specific project goals for sustainability. There was a consensus among the members that the most critical sustainability features to be incorporated into the design include:

- Renewable energy
- Construction waste management
- Day lighting
- Protection and restoration of wildlife habitats
- Optimization of energy efficiency
- Electricity vehicle charging



Conservation Mowing

Beginning in late-spring, 2023, ACPS placed approximately 30-acres of regularly mowed grass into a conservation mowing program as part of an ACES initiative. Conservation mowing, or mowing reduction, aligns with numerous actions identified in the Landscape, Natural Resources, and Agriculture sector of the Climate Action Plan including reduction in carbon emissions from landscaping equipment and improvements in soil health, wildlife habitats, and stormwater runoff. Co-benefits include staff safety and noise reduction.

The program has been generally successful and well received by the community. Native grasses and wildflowers have grown in and many of the expected benefits from the program have been realized. The Red Hill community has been especially supportive of the conservation mowing program. Grounds crews were asked to delay their annual mowing at Red Hill Elementary so that the school could use the tall grasses as part of their outdoor learning curriculum.

While the conservation mowing program has been generally well received, staff has received some negative feedback about the program from the community. The neighbors of Woodbrook Elementary have been especially vocal about their dislike of the hillside placed into conservation mowing. ACES weighed all feedback and opted to leave all conservation mowing areas in place.



Conservation Mowing at Ivy Elementary

Solar PPA

ACES, in collaboration with staff, have been working to develop a solar power purchase agreement (PPA) to procure solar energy for ACPS facilities. Through a PPA, a solar developer leases rooftop space from ACPS to install their solar arrays. ACPS in turn agrees to purchase the energy produced by solar at a pre-arranged price for the term of the agreement, which is typically at a rate lower than the electric utility. Thus, ACPS saves on energy costs for the term of the agreement.

Following an evaluation of roof conditions, ten schools were found to be optimal for rooftop solar. Staff requested proposals from multiple local solar developers and opted to move forwards through the procurement process with Madison Energy (formerly SunTribe) located in Charlottesville.

The ten proposed systems, representing 4.9 MW of renewable energy capacity, will offset approximately 35% of ACPS's grid-purchased electricity. Over the 25-year term of the PPA, ACPS will offset more than 70,000 MT of CO² emissions and save the division an estimated \$10 Million in energy costs compared to grid purchased electricity.

Madison Energy's Curriculum & Instructional Lead will provide students with hands-on and classroom learning opportunities including, solar energy dashboards, solar curriculum libraries, teacher workshops, CTE resources for solar career training, and scholarship grants.



Going Forward

Looking to the future, ACES is committed to the School Division's mission and our work is aligned to the Strategic Plan and Climate Action Plan. During the upcoming year, we will work to achieve this by:

- Planning further opportunities for waste reduction
- Expanding the cafeteria composting program to additional schools
- Sustainable food sourcing for school kitchens
- Decarbonization Master Planning for ACPS Buildings
- Electric School Bus Transition Planning
- Increasing curriculum integration of sustainability topics.