

ANN ARBOR PUBLIC SCHOOLS  
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# Ann Arbor Public Schools Environmental Sustainability Framework

December 14, 2022





## Ann Arbor Public Schools

### Environmental Sustainability Framework

#### Executive Summary

*December 2022*

**Mission:** The Ann Arbor Public Schools is committed to care for the environment, to model and achieve an environmentally sustainable existence. We demonstrate this commitment, both through our critical mission of educating generations of students as strong stewards of the environment, and also in living an environmental commitment with every decision across every area of the organization.

**Vision:** In all decisions, we embody and live the deeply held value of caring for the earth and our environment. Individual, team and district decisions are consistent with care for the earth.

#### **Introduction:**

The Ann Arbor Public Schools (AAPS) serves a central role in the education of generations of students in our community. As the Ann Arbor community faces the opportunities and challenges of the climate crisis, AAPS fully embraces its responsibility in the community and joins our many partners in working towards shared environmental sustainability goals.

In considering our commitment for sustainability minded change, and recognizing the unparalleled potential within our critical mission of educating generations of students who are climate literate and action oriented, we also recognize the key importance of modeling authentic climate and educational practice by demonstrating sound environmental sustainability solutions through innovative and informed organizational behavior.

Our most important contribution to addressing the climate crisis will be in leveraging our central role in education. We will empower our next generation to act as good stewards of the environment, to become active in climate mitigation and adaptation in their professional and personal lives, and impart in them the confidence, wisdom, hope and inspiration to be resilient in facing the many challenges of the climate crisis.

Keeping students at the center, the work of AAPS will have a collective impact on broader systems in our neighborhoods, city, region, and world. It is the next generation - in our schools today - that will face the increasing impacts of climate change. By empowering them with a climate informed education, AAPS will help create the foundation for their success, and ultimately the success of our community, in rising to meet an uncertain climate change future.

## Background:

AAPS has a long history of leadership in environmental education. For over 60 years, the district has educated students to serve as good stewards of the environment, to conserve resources, and to understand inclusive history that recognizes historic inequities that result in negative environmental and human consequences.

AAPS has also made great strides in improving the indoor and outdoor environmental quality of our school campuses while conserving resources in our operations, maintenance and construction projects.

While AAPS is already engaged in environmental sustainability efforts, this is a critical time to renew, deepen and align those efforts. The current and looming climate crisis requires continued efforts to organize and institutionalize systemic changes.

Recognizing the urgency of the climate crisis, in December 2018, AAPS adopted Policy 8000: Environmental Sustainability (Appendix A), taking a critical step to institutionalize a commitment to environmental sustainability as a fundamental value in the AAPS. This policy directly supports many of the initiatives included in this framework document.

Subsequently, in November 2021, the AAPS Board of Education formed the Environmental Sustainability (ES) Taskforce (Appendix B) composed of local environmental leaders, AAPS staff, students and others. The ES Taskforce was charged with advising the district administration in developing the ES Framework presented in this document.

The Environmental Sustainability (ES) Framework is further informed by the work of school districts around the country that have made environmental sustainability commitments and the plans of our local institutional partners, including the University of Michigan, City of Ann Arbor and Washtenaw County (Appendix C).

## Core Values:

The AAPS Environmental Sustainability Framework is presented as a living document to be revised over time. It is based on the following Core Values developed by the Board of Education, district administration, and the ES Taskforce:

- 1. The climate change emergency is real, increasing and caused by human activity***
- 2. AAPS has a responsibility to act urgently as a district, on school campuses and as individuals, in response to the complex challenges of climate change through the mitigation of harmful human activities and the promotion of human activities that restore the environment***
- 3. The critical mission of AAPS is teaching and learning. The district has a responsibility to lead and educate in our community in the development of environmental and climate literacy in our students with core academic offerings and enrichment learning opportunities to ensure our community is prepared for an uncertain climate change future***
- 4. AAPS will continue to enhance and support healthy and sustainable school campuses by improving air quality, water quality, sustainable food systems, sustainable sites and grounds, waste management and building renovation and construction projects***

5. ***AAPS recognizes that the negative impacts of environmental degradation and climate change disproportionately impact marginalized and vulnerable populations and will continue to implement strategies to address these historic inequities***

### **Shared Commitments:**

AAPS schools offer a unique opportunity in our community to help create an environmental and climate literate population, to lead by example, model responsible behavior and cast a line deep into the next generation of environmentally conscious and active leaders and citizens.

Based on these values and our unique position in our community, AAPS affirms support for the following individual and shared commitments:

- ***reduce the use of disposable plastics, recycle at school and compost whenever possible***
- ***be conscious of food waste***
- ***never litter***
- ***be mindful of energy waste including turning off lights and other devices when not in use***
- ***walk, bike and take public transportation when possible***
- ***conserve water***
- ***be respectful of the outdoor environment***



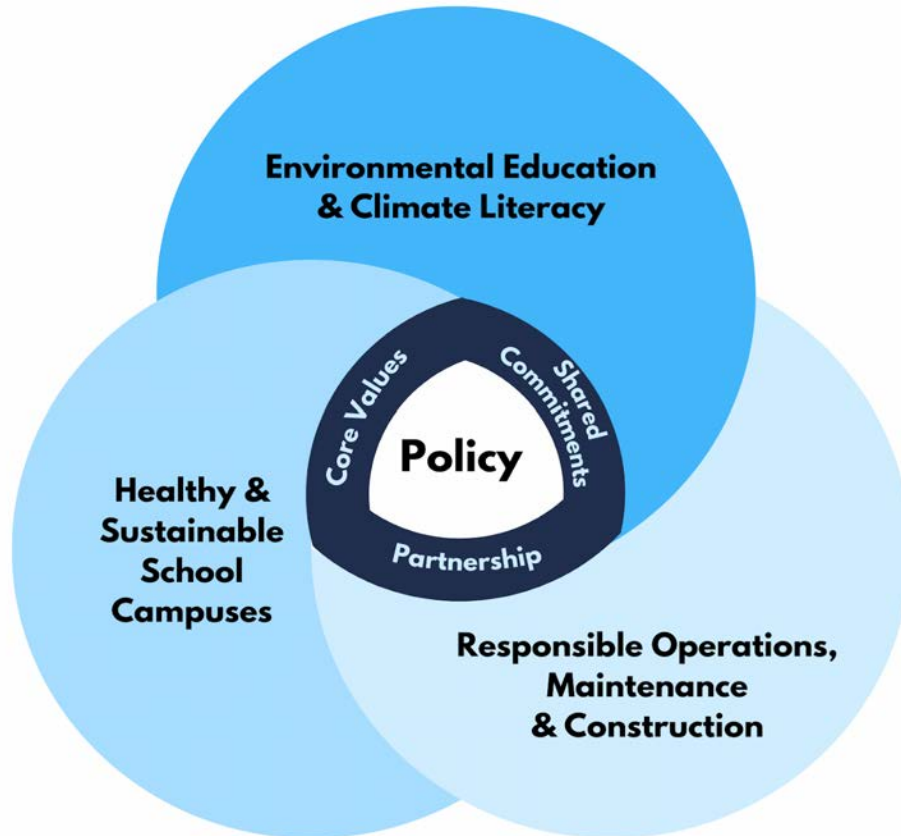
## The Framework: A Roadmap

The AAPS Environmental Sustainability Framework is organized in three sections:

- 1) **Responsible Operations, Maintenance and Construction ;**
- 2) **Environmental Education and Climate Literacy; and**
- 3) **Healthy and Sustainable School Campuses**

Guided by overarching policy, these three sections are connected by foundational understandings in the AAPS: Core Values, Shared Commitments and Community Partnerships.

## Environmental Sustainability Framework



## Areas for Action

The three Sections are further subdivided into 11 Areas of Action, including:

- 1) **Responsible Operations, Maintenance and Construction**
  - Energy (four subsections)
  - Water (three subsections)
  - Waste
  - Transportation
  - Scope 3 Indirect Emissions
  - Construction and Renovation
  
- 2) **Environmental Education and Climate Literacy**
  - Core Academics (three subsections)
  - Enrichment Learning (two sub-sections)
  
- 3) **Healthy & Sustainable School Campuses**
  - Indoor Environments
  - Outdoor Environments
  - Food Systems

Each Area for Action is further detailed in the following categories: Progress; Opportunities and Challenges; Next Steps; Reporting and Metrics; Responsible Department(s); and Collaborators.

<p><b><i>Progress:</i></b></p> <p>What work has been completed or is ongoing in this area?</p>	<p><b><i>Opportunities and Challenges:</i></b></p> <p>What are the opportunities for additional progress, and what are the constraints?</p>	<p><b><i>Next Steps:</i></b></p> <p>What will we do next, including baseline assessments, planning, target setting and action?</p>
<p><b><i>Reporting and Metrics:</i></b></p> <p>How do we know we are making progress and how do we update our community?</p>	<p><b><i>Responsible Department(s):</i></b></p> <p>Which department(s) at AAPS are responsible for this area, and which departments will need to support the work?</p>	<p><b><i>Collaborators:</i></b></p> <p>Who else can help, such as students, staff, local institutions, non-profits, community groups, etc.?</p>

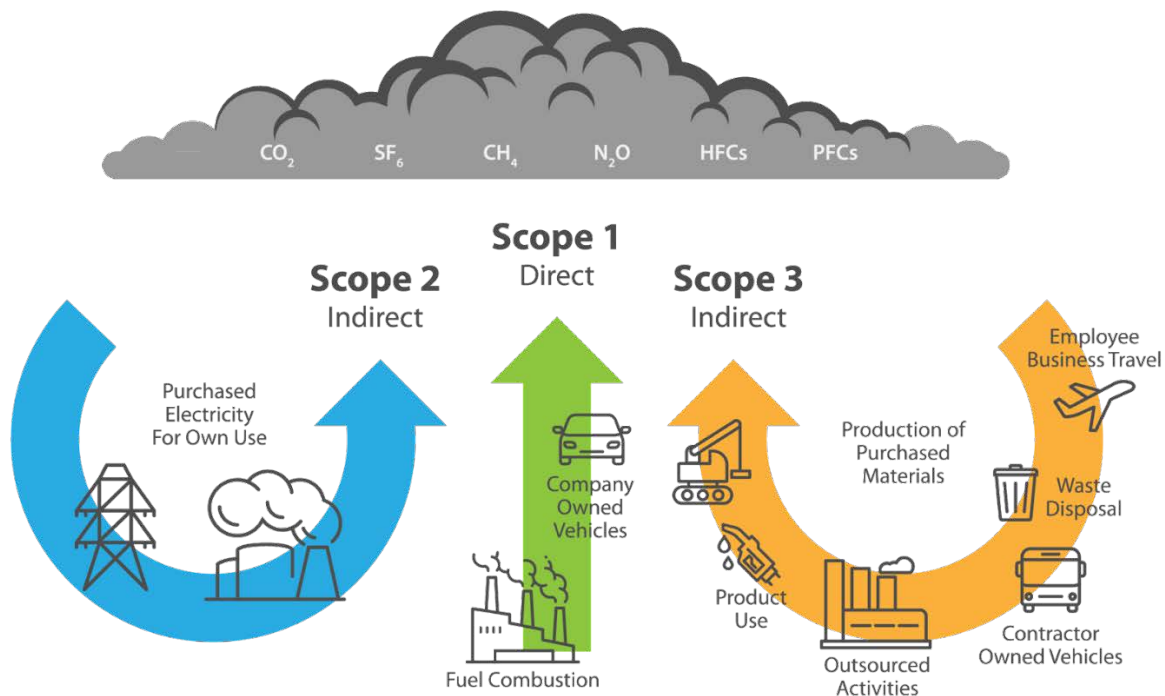
## Reduction of Greenhouse Gas Emissions

AAPS accounts for less than 1% of our community's greenhouse gas (GHG) emissions. Though this is a small amount of the total emissions in Washtenaw County, the district is committed to doing what it can to be part of a carbon-neutral future.

AAPS Environmental Sustainability Framework includes important steps to reduce the district's GHG footprint. These actions are organized based on the three scopes of emissions utilized by the [Intergovernmental Panel on Climate Change](#) (IPCC) of the United Nations, major corporations, countries, and municipalities worldwide, including in the United States.

[The IPCC defines](#) Scope 1, 2 and 3 emissions as:

'Scope 1' indicates direct greenhouse gas (GHG) emissions that are from sources owned or controlled by the reporting entity. 'Scope 2' indicates indirect GHG emissions associated with the production of electricity, heat, or steam purchased by the reporting entity. 'Scope 3' indicates all other indirect emissions, i.e., emissions associated with the extraction and production of purchased materials, fuels, and services, including transport in vehicles not owned or controlled by the reporting entity, outsourced activities, waste disposal, etc. (WBCSD and WRI, 2004).



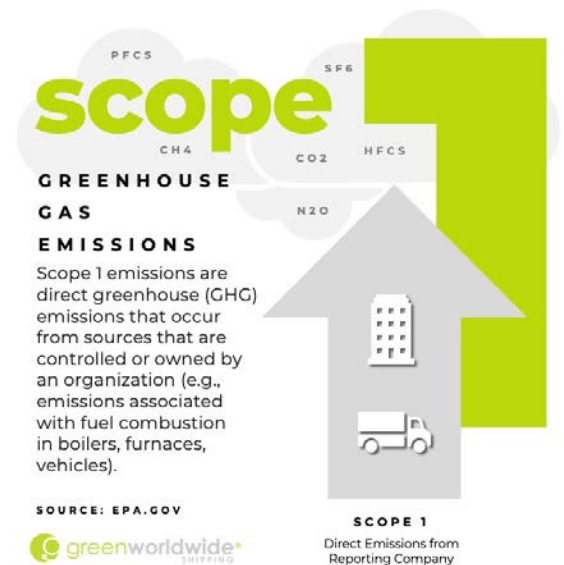
## Scope 1 - Direct Emissions

Scope 1 emissions are atmospheric GHG emissions directly generated by AAPS. The majority of these emissions at AAPS come from the burning of natural gas for space and water heating, as well as diesel and unleaded gasoline for buses and fleet vehicles.

A plan to outline, detail and confirm interim targets will be developed. Electrification of buildings and vehicles will be central elements of the plan.

**GOAL:**

The AAPS will eliminate Scope 1 emissions by 2035.



## Scope 2 - Indirect Energy Emissions

Scope 2 emissions are atmospheric GHG emissions attributed to purchased utilities. At AAPS, these are the emissions associated with purchased grid electricity. Currently AAPS uses approximately 30,000 megawatt hours of electricity annually. By combining on-site solar production, the Michigan Renewable Portfolio Standard, and utility-scale renewable energy from DTE Energy, AAPS will eliminate Scope 2 emissions by 2024.

In the last three years, AAPS has been installing 8 large rooftop solar arrays that when fully operational in 2023, will generate approximately 6% of the District's electricity, or 1800 megawatt hours annually.

In addition, the State of Michigan's Renewable Portfolio Standard (RPS) required all utilities to provide 15% of their electricity from renewable sources by 2021. This accounts for 4500 megawatt hours annually at AAPS.

To quickly secure an additional 80% Scope 2 emissions reduction, AAPS entered a 20-year contract with DTE Energy and the MIGreen Power program to supply 24,000 megawatt hours annually to AAPS from newly constructed utility-scale wind and solar projects built in Michigan by 2024.

**GOAL:**

The AAPS will eliminate Scope 2 emissions by 2024.





## Scope 3 - Other Indirect Emissions

Scope 3 emissions are atmospheric GHG emissions attributed to a wide range of other activities, including purchased goods and services, construction materials, waste, commuting and financial investments. For many institutions and businesses, Scope 3 emissions are the largest of the three scopes of GHG emissions.

At AAPS, many of the Scope 3 emissions are associated with purchased items such as laptops and other technology, books, paper, construction materials and other supplies - as well as contracted services such as lawn maintenance and snow removal, custodial and food services and other services.

Measuring Scope 3 emissions is challenging and requires an accounting of both Upstream carbon emissions (mining, logging, manufacturing, packaging, transportation, etc.) and Downstream carbon emissions (product use, disposal, etc.). While the global community is developing methods for calculating and reporting Scope 3 emissions, it is impossible at this time to accurately calculate the district's Scope 3 emissions for all areas.

Community partnerships will be critical in reducing Scope 3 emissions as many of the solutions are beyond the district's control and will require transforming the marketplace for goods and services to carbon neutrality. This effort will require creative strategies working at scale across our city, county, region, nation and world.

AAPS will continue to collaborate with local partner institutions to better measure, track and reduce Scope 3 emissions.

**GOAL:** In the 2023-2024 school year, develop purchasing and construction guidelines that reflect the district's commitments to reducing Scope 3 emissions and begin piloting the new guidelines in 2024.

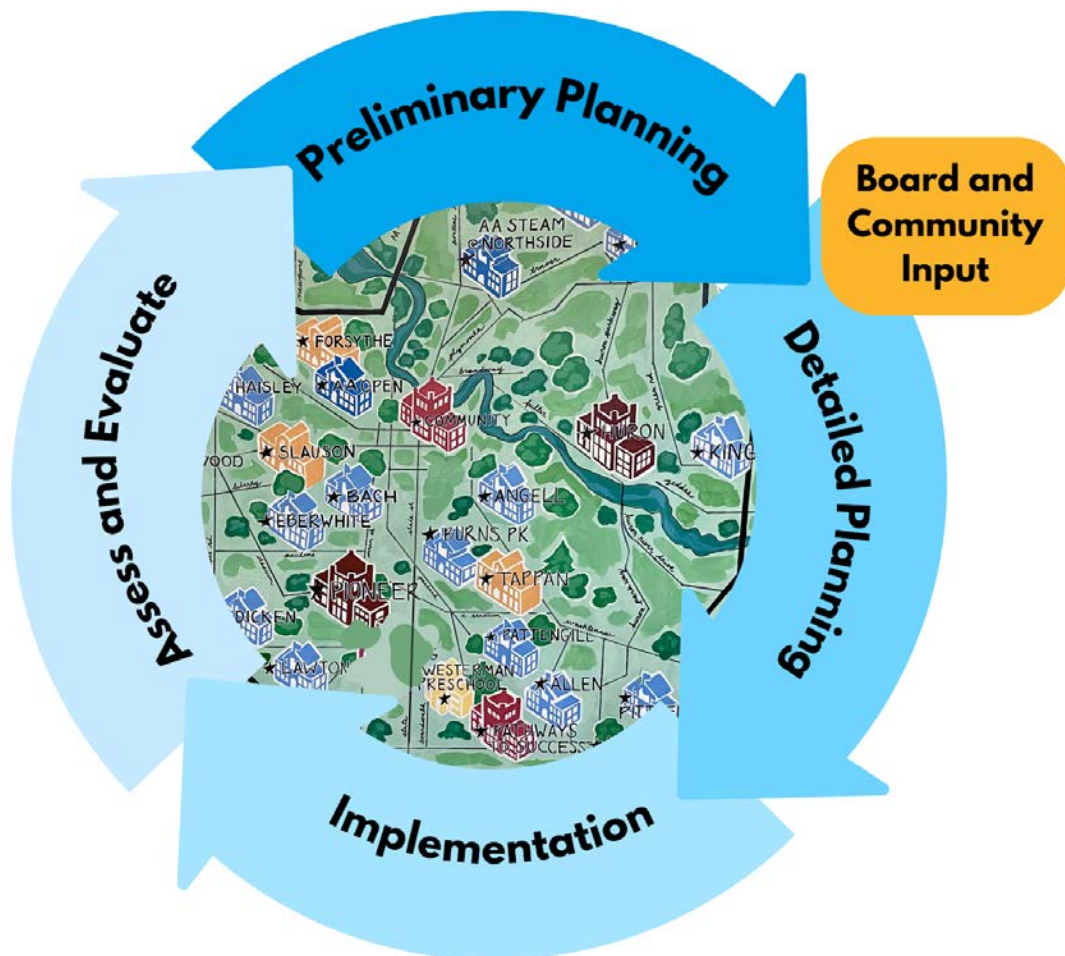


## Next Steps Process

AAPS celebrates progress already made in each of the 11 Areas of Action so that future actions extend from and are built upon the strengths of prior successes. This will enhance our organizational commitment and deepen a culture of belonging for meeting the challenges of the climate emergency.

It is also important to identify near-term actions, Early Actions, that have the majority of the necessary resources already in place and that will provide significant immediate impact.

AAPS will use an iterative process in the implementation of initiatives in each of the 11 Areas for Action. It is important to start the work now, but also plan for adjustments over time, informed by input from the Board of Education, students, staff, and community.



## Immediate Actions with Environmental Sustainability in the AAPS

- **Styrofoam**

### **Eliminate the use of Styrofoam in cafeterias**

Beginning in January 2023, the AAPS will eliminate the use of Styrofoam lunch trays at all elementary schools; and complete the elimination of all Styrofoam materials in cafeteria/food and nutrition services across all locations in the AAPS by the start of the 2023/24 school year.

- **Composting**

### **Implement Composting beginning with a Composting Pilot**

AAPS will pilot full cafeteria composting at three elementary schools during the 2023-2024 school year. The pilot will allow for the gathering of information regarding the educational, staff, and financial resources needed to expand the program across the district. During spring 2024, a plan will be brought forward to continue the implementation of composting district-wide.

- **School Gardens**

### **Ensure active neighborhood school gardens at all elementary/P8 campuses**

AAPS will conduct an evaluation of existing school gardens at AAPS elementary/P8 campuses to better understand existing conditions including garden locations, access to water, appropriate tool storage locations, teacher and volunteer support, curriculum connection, and other features. A plan will be developed to ensure all AAPS elementary/P8 have active school gardens with needed supports to ensure long-term viability and the enhancement of a culture of belonging at the AAPS through hands-on active learning.

- **Outdoor Learning**

### **Outdoor Learning Evaluation and Plan for Continued Enhancements**

In the spring of 2023 and fall of 2024, the AAPS will conduct an inventory and evaluation of all outdoor learning environments at AAPS campuses to inform enhancements to formal and informal outdoor learning opportunities and sustainable land management practices. The evaluation process will include natural areas and trails, opportunities for tree plantings, expansion of no-mow practices, quantifying carbon sequestration, and others.

- **Environmental Sustainability Teacher Champions**

AAPS will invite Teacher Champions to serve as leaders in their schools to ensure the building of organizational capacity for environmental sustainability work across the district at every school campus. Teacher Champions will lead and mobilize support for school-based sustainability efforts and enable the work of student Green Teams at each AAPS campus.

- **School Sustainability Mini-Grants**

In partnership with the City of Ann Arbor, Office of Sustainability and Innovations, applications will be available in January 2023 for mini-grants to implement sustainability projects at schools during spring 2023 and the 2023-2024 school year.

- **Aligned Curriculum**

**Enhance an Aligned Learning Experience and Environmental Sustainability Curricula P-12 in the AAPS**

Beginning with the 2023-2024 school year, a comprehensive curriculum mapping process will be initiated, including an analysis of existing environmental sustainability lessons and curricula across all disciplines. The information gathered will inform a strategic planning process to map current environmental sustainability curricula and to clarify, align and strengthen environmental education and climate literacy in the AAPS.

- **Executive Director, Environmental Sustainability**

In summer 2022, AAPS implemented an executive-level staff position reporting directly to the Superintendent of Schools with overall responsibility and oversight of implementation of environmental sustainability initiatives. The full job description for this position is attached as Appendix D.

- **Environmental Sustainability (ES) Advisory Committee**

As the Environmental Sustainability Framework moves from planning to implementation, an Environmental Sustainability Advisory Committee will be formed in keeping with Board Policy 2420: Parent, Students and Community Advisory Committees.

*From Policy 2420: The Board recognizes that the district benefits from parent, student and community participation on advisory committees to help build strong relationships, shape understanding and provide an additional avenue for input and feedback on the operations and improvement of the district.*

Individuals representing local institutions, nonprofits and the business community will be encouraged to apply. Meetings are expected to occur quarterly and serve to strengthen the implementation of the Environmental Sustainability Framework, deepening connections and action through community partnerships.