

# Strengthen & Incorporate Environmental Literacy in Teacher Preparation Programs

# **Working Group**

**Suggested Implementor** 

Environmental and Climate Literacy

**Institutions of Higher Education** 

### Recommendation

Revise Maryland's teacher preparation policies and program requirements to ensure that all pre-service teachers receive training in environmental literacy across content disciplines.

This includes:

- By 2029, environmental literacy will be embedded into teacher training programs across Maryland. Additional components of this include:
  - Establishing environmental literacy and climate literacy as key pedagogies and practices to embed into pre-service coursework, such as methods courses.

Establishing a minimum of 10 required hours for outdoor teaching experiences within teacher preparation programs as a component of the required 120 student teaching internship hours.

• Starting in 2029, Institutes of Higher Education will demonstrate how they embed environmental literacy into pre-service coursework through a yearly Higher Education Environmental Literacy Report.

To support the implementation of environmental literacy training in per-service teacher preparation policies and program requirements, OLP recommends that in 2026:

- Governor's office, Institutes of Higher Education, state leaders, and teacher education stakeholders, express support for the inclusion of environmental literacy and climate literacy in teacher education programming (e.g. press releases, newsletters, op-eds).
- OLP Higher Education Task Force ensures state-wide participation of teacher education faculty in OLP conducted focus groups intended to inform:
  - landscape assessment of environmental literacy in teacher preparation programs;
  - development of draft recommendations and guidance around the integration of environmental literacy in pre-service teacher education courses and internships.

Faculty should be allowed to review, comment, and assist OLP in finalizing the proposed recommendations and guidance.

The recommendations outlined for 2026 are intended as the first phase of a tiered approach, laying the groundwork for deeper implementation in 2027 and 2028. By starting with these initial steps, the working group envisions a clear progression that builds capacity over time and ensures long-term impact. Examples of potential steps for future years are listed below: 2027:

- Both the Maryland Higher Education Commission (MHEC) and the University System of Maryland (USM) establish an Environmental Literacy Specialist Position to provide technical assistance, professional development, and coordination to assist Institutes of Higher Education in integrating environmental and climate literacy in teacher preparation policies and program requirements. These positions would be parallel to the Environmental Literacy Specialist position that currently exists at Maryland State Department of Education (MSDE) and facilitate state-wide alignment.
- The OLP Higher Education Special Task Force reviews focus group feedback and refines draft recommendations and guidance around the integration of environmental literacy in pre-service teacher education courses and internships.

#### 2028:

- The state of Maryland provides funding and develops new grant opportunities around the training and/or integration of environmental literacy and climate literacy in teacher education.
  - Multiple Maryland Universities have expressed interest in collaborating to develop and pilot trainings and course integration within pre-service education programs.
- The state of Maryland provides funding for and facilitates professional learning opportunities, such as professional development for faculty in teacher education, to support environmental literacy and climate literacy integration.
  - o Example models in Maryland of professional learning & support:
    - The previous Chesapeake Bay Trust funded initiative- Higher Education Environmental Literacy (HEEL) Fellowship for faculty and the HEEL Summit for faculty across Maryland around environmental literacy integration into teacher education programming that was funded by Maryland Environmental Literacy Advisory Network (MELAN) & Baltimore—Towson University (Partnerships for Greater Baltimore).
- The OLP Higher Education special task force releases a guidance document around the integration of environmental literacy in pre-service teacher education courses and internships as well as the Higher Education Environmental Literacy Report template for Institutes of Higher Education.

#### 2029:

• The Governor's Office issues a press release sharing the guidance around the integration of environmental literacy in pre-service teacher education courses and internships.

# Why is this recommendation needed?

Despite environmental education being a graduation requirement for Maryland students, most preservice teachers are not being exposed to practices, pedagogy, and skills around the integration of environmental literacy in the multi-disciplinary classroom. Pre-service teachers often do not see environmental literacy modeled during internships or receive structured outdoor teaching experiences. In order to build the capacity of teachers to teach about and utilize the environment as a context and a setting for teaching, pre-service teachers need exposure and experience.

The legislation supporting environmental literacy is the Code of Maryland Regulations (COMAR) 13A.04.17.01, which requires environmental literacy to be integrated into Maryland PK-12 classrooms through the Maryland Environmental Literacy Standards. In 2022, Maryland Project Green Classroom (PGC), submitted recommendations to develop and promote guidance to local education agencies on environmental literacy programs, identify effective professional development components, and support implementation (Maryland Project Green, 2022). This recommendation is supported by the 2019 Chesapeake Bay Watershed Environmental Literacy Indicator Tool (ELit) report, which found that public school districts believe that one of the most significant reported needs for support in environmental literacy is high-quality professional development and curriculum planning/integration support (Sickler, 2020). The most recent 2024 Chesapeake Bay Watershed ELit report found similar results, indicating that professional development and curriculum planning remained a priority (Sickler &

Kloos, 2025). As environmental literacy is an evident priority in K-12 classrooms supported by Maryland regulations, and there have been reported needs for teacher professional development in environmental literacy, we recommend this priority be extended to not only offer professional learning opportunities during in-service years, but also to provide supports and policies around the integration of environmental literacy training in pre-service teacher preparation. This recommendation is supported within the literature, with arguments that developing environmental literacy through teacher education programs is critical for pre-service teachers' ability to facilitate effective environmental education during in-service teaching (McKeown-Ice, 2000; Dada et al., 2017).

This recommendation provides direct alignment and support for the <u>Blueprint for Maryland's Future Comprehensive Implementation Plan (AIB, 2024)</u>. The Blueprint Comprehensive Plan is intended to guide implementation by State and local entities to achieve the Blueprint for Maryland's Future expected outcomes. Specifically, this recommendation supports:

- Objective 2: Increase the rigor of teacher preparation programs and licensure requirements.
- o Task 2: Revise teacher preparation programs to meet new requirements.
- Subtask 2(b.2) Teacher preparation programs shall provide training in knowledge and skills to understand and teach the Maryland curriculum frameworks.

In order to ensure that future educators are equipped to deliver high-quality, standards-aligned training in Maryland curriculum frameworks, it is essential to incorporate the requirements of the Maryland Environmental Literacy Standards and Framework (COMAR 13A.04.17.01). The more focused training and direct experiences that a teacher has, the more confident they are in environmental and outdoor teaching (Parker, 2017; Peebles & Mendaglio, 2014). Building this foundation during teacher preparation programs ensures that graduates enter the profession not only aware of environmental literacy mandates but also equipped with the knowledge, skills, and dispositions to design and implement meaningful environmental learning experiences for their future students.

With the extension of environmental literacy priorities and emphasis on teacher preparation, we recommend providing opportunities for teacher education faculty professional learning around environmental literacy, climate literacy, and strategies to integrate these topics across disciplines in teacher preparation. By building faculty capacity to model these practices, we create opportunities to expose pre-service teachers to pedagogy and build a foundation for environmental literacy to emulate in their own future classrooms (McClure & Haines, 2025). Recommendations in the literature are put forward around the enhancement and incorporation of teacher preparation professional learning around environmental education (Franzen, 2018). Department of Natural Resources (2020), placed specific recommendations around pre-service teacher preparation in the 2021-2022 Maryland Environmental Literacy Action Plan, with the recommendation:

- S1.2 Promote the inclusion of environmental literacy instruction in college-level courses, teacher prep programs, and professional certification programs.
- Regional: Promote E-Lit requirements in pre-service and education leadership graduation degree requirements.

In a recent study of Maryland teacher education faculty participating in the HEEL professional learning experience acknowledged the value in environmental literacy as a teaching practice and indicated high levels of agreement with the statements, "It is important to take the time to integrate environmental issues and concepts that are related to my discipline into my teaching", "Environmental Literacy should be considered a priority in the higher education classroom" and "All pre-service teachers should be required to learn about Environmental Literacy content and methods" (McClure, 2025, manuscript in preparation).

The 'Strengthen & Incorporate Environmental Literacy in Teacher Preparation Programs' recommendations and support mechanisms for environmental literacy in teacher preparation would create a consistent pipeline of teachers who enter the profession prepared to meet state mandates for environmental literacy instruction in Maryland. "Just as environmental literacy is the foundation for

addressing environmental issues and challenges, pre-service teacher education must be the foundation for environmental literacy capacity building" (McClure & Haines, 2025).

### What would success look like?

This recommendation ensures that Maryland's future educators are trained and confident in helping their students meet the state environmental literacy requirement, helping students develop the knowledge, skills, and attitudes needed to become environmentally literate citizens. Through the integration of environmental literacy learning experiences in pre-service teacher training, teachers graduate and enter the classroom with training in the implementation of curriculum to support student achievement of the Environmental Literacy Standards, therefore supporting K-12 students and Maryland school systems. By embedding environmental literacy into the foundation of teacher preparation, we will create a ripple effect—empowering educators to engage K-12 students in meaningful outdoor learning, real-world environmental problem-solving, and stewardship activities that support Maryland's climate resilience and conservation goals. Success would look like the inclusion of Maryland's teacher preparation program requirements and policies to support and ensure that pre-service teachers receive training in environmental literacy across content disciplines.



# Recognize and promote sustainable schools in Maryland

Working Group
School Sustainability

Suggested Implementor
Governor's Office

### Recommendation

The Governor will establish a Maryland Sustainable Schools week to promote sustainable schools and to highlight the achievements of Pre-K - 12 Maryland Green Schools.

# Why is this recommendation needed?

The Maryland Green Schools Act of 2019 – Whereas, Green schools support the State's efforts to curb climate change and meet the State's environmental education goals established under COMAR 13A.04.17; now, therefore, BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND, That the Laws of Maryland have been summarized as follows: To increase the number of green schools in the State.

Due to COVID and post covid challenges resulting in school staffing transitions where schools are hiring new teachers and principals, historic knowledge of the Maryland Green Schools program has been lost.

US Department of Ed: <a href="https://www.ed.gov/about/initiatives/infrastructure-and-sustainability">https://www.ed.gov/about/initiatives/infrastructure-and-sustainability</a>

The recommendation supports the updated 2025 School District Planning Outcome of the Cheasapeake Bay Watershed Agreement to "Continually increase the number of school districts that have policies and practices in place that support environmental literacy and sustainable schools."

Green schools, support school district efforts to reduce energy, waste, and water costs and increase environmental efficiencies in schools and are in line with Maryland's Comprehensive Climate Action Plan – and school decarbonization efforts.

There are currently 693 schools, last year we saw 2% growth. Support of state leadership to encourage participation across the state with school and community links to achievement and nurturing exploration and curiosity, mental health, student stewardship, equitable access to programs

Since the National Green Ribbon Schools program is no longer functioning however the three ED-GRS Pillars emphasize school and LEA sustainability, which can be found in the Maryland Green Schools program.

US ED three pillars:

Pillar I: Reduce environmental impact and costs.

**Pillar II:** Improve the health and wellness of students and staff. **Pillar III:** Effective environmental and sustainability education.

Further references in support of sustainable green schools:

Center for Green schools: https://centerforgreenschools.org/health-research-library

GS Alliance: https://www.greenschoolsalliance.org/why-sustainable-schools

Support the updated School District Planning Outcome of the CB Watershed Agreement to "Continually increase the number of school districts that have policies and practices in place that support environmental education and sustainable schools."

in support of the Green Schools Act of 2019 to increase the number of green schools, which has — Supporting school district efforts to reduce costs and waste increase efficiencies in schools.

### What would success look like?

A statewide Maryland Green Schools week will highlight best practices, agency involvement, policy implementation to support Climate Solutions Now Act MD. This week would build awareness of sustainable schools throughout Maryland. School communities will recognize their school's efforts and understand that their actions are a part of something bigger. Students will recognize the larger impact that their school and school district efforts have to create a sustainable future. School districts and schools are supporting healthy, safe, learning space for all.



# Hire an Environmental Literacy Specialist at Maryland State Department of Education (MSDE)

Working Group
Networks

Suggested Implementor
State Agency

### Recommendation

Maryland State Department of Education reinstate and hire the Environmental Literacy Specialist position.

# Why is this recommendation needed?

Currently, the Environmental Literacy Specialist position is vacant, limiting the capacity for statewide coordination of environmental literacy efforts. According to the 2023 recruitment of the Environmental Literacy Specialist, this position provides "best-in-class development and support of highly effective prekindergarten through grade 12 programs and initiatives aligned to the Maryland Next Generation Science Standards and Maryland State Environmental Literacy Standards to accelerate student performance in environmental literacy across local education agencies and early learning environments."

This position is essential to fulfilling Maryland's statutory and strategic commitments to environmental literacy, including the Code of Maryland Regulations (COMAR) 13A.04.17.01 *Requirements for Environmental Literacy Instructional Programs for Grades Prekindergarten – 12*, support for the implementation and tracking of relevant Chesapeake Bay Program Outcomes, and advancing the mission of the Outdoor Learning Partnership.

Responsibility (2)(e) of Executive Order 01.01.2024.15 states that the Maryland Outdoor Learning Partnership shall "Foster collaboration, coordinate resources, and deliver recommendations to decision makers in order to equitably ensure that: Maryland's teachers have the funds, training, and support necessary to implement curriculum to support student achievement of the Environmental Literacy Standards, the Next Generation Science Standards, the Maryland Health Education Standards, Social Studies Standards, and other State standards of education as they relate to environmental literacy."

The Environmental Literacy Specialist position is vital to ensuring that Maryland's teachers have the funds, training, and support necessary to implement curriculum to support student achievement of state standards as they relate to environmental literacy.

Given the unique expertise and statewide coordination that this role provides, the State should follow the appropriate processes to ensure this position is not eliminated and seek an exemption from the state hiring freeze.

What would success look like?

If this recommendation is successfully implemented, the Environmental Literacy Specialist position will be filled prior to the end the 2025-2026 school year.	



# **CTE Pathway**

Working Group
College and Green Careers

Suggested Implementor
Maryland State Board of Education

# Recommendation

Within the appropriate process developing a new Career and Technology Education (CTE) in "Environmental Management, Sustainability and Technology" pathway..

# Why is this recommendation needed?

In 2024 the Chancellor and Vice Chancellor of the University System of Maryland wrote an article in Maryland Matters magazine and communicated ideas about training environmental scientists and the challenges we face with global issues of concern, like climate change. Chancellor, Dr. Jay Perman stated, "These events (referring to record global temperature increases) fuel our urgency to advance education in environmental science and related fields. However, the U.S. confers comparatively few environmental degrees: In 2021, U.S. universities awarded 7,400 bachelor's degrees in environmental science. Counting agriculture (with its emphasis on resource conservation) and the environment together, bachelor's degrees totaled 59,000. Compare that to undergraduate business degrees, which numbered 391,000. Meanwhile, the job market for environmental scientists is projected to grow by 6% over the next decade, double the growth for all jobs. Two-thirds of Americans believe the government should do more to address our climate crisis. The solutions respondents invoke include carbon sequestration, business tax credits for carbon storage, restrictions on power plant emissions, an emissions-based tax on corporations, and higher fuel economy standards. All of these solutions require an understanding of the complex dynamics among climate systems, industrial production, consumption, and economics. It is critical that Maryland's workforce of the future considers the economic transition underway to address climate change and other environmental/systemic challenges. This transition means significant change over the next 20 years that will be experienced by Maryland students and the broader citizenry. Maryland will need people who are able to navigate these changes, the emerging economy and lead in this economy. Therein lies the disconnect: On the one hand, Americans are concerned about climate change and want measures implemented to address it; and on the other, we're not producing enough graduates in the very fields that will guide this implementation". Additionally, the article states, "The sooner we can reach students — to cultivate their interest and skills in environmental science — the better. And the wider we cast our net, engaging students from all backgrounds and experiences, the more likely it is that we'll build environmental systems and practices that work for all and benefit all. Universities are critical to producing our environmental workforce. But if we start when students enter college, we're already too late. We must meet young learners where they are — wherever they are. The pace of climate change is too fast, the impacts too deep, and the consequences too dire to wait for them to come to us".

# What would success look like?

Increase the number of students seeking employment in Green, Blue Economy, and Carbon Circular Economy careers with appropriate industry-level certifications and increase the number of students enrolling in environmental sciences, sustainability, and interdisciplinary majors in 2-yr and 4-yr colleges. These two avenues are needed to meet the demand of the climate-ready workforce as called for the in OLP Executive Order.



# TStrengthen & Incorporate Environmental Literacy in Teacher Preparation Programs

# **Working Group**

Environmental and Climate Literacy

# **Responsible Party**

Subset of OLP Representatives

### **Expected Timeline**

12/31/2026

### **Action**

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This includes:

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  - Establishing environmental literacy and climate literacy as key pedagogies and practices to embed into pre-service coursework, such as methods courses.
  - Establishing a minimum of 10 required hours for outdoor teaching experiences within teacher preparation programs as a component of the required 120 student teaching internship hours.
  - Starting in 2029, campuses will demonstrate how they embed environmental literacy into pre-service coursework through a yearly Higher Education Environmental Literacy Report.

To support the implementation of environmental literacy training in pre-service teacher preparation policies and program requirements, the following OLP actions for 2026 are proposed:

- Build a special OLP task force of Higher Education Faculty to facilitate a landscape assessment
  of environmental literacy in teacher preparation, and will work on the development of draft
  recommendations, draft guidance around the integration of environmental literacy in preservice teacher education courses and internships.
- OLP will create and publish a recommendation to the Institutes of Higher Education to include environmental literacy and climate literacy in teacher education programming.
- OLP will express support for the inclusion of environmental literacy and climate literacy in teacher education programming (e.g., press releases, newsletters, op-eds) as well as promote the OLP task force for Higher Education initiative on building recommendations and guidance for the Institutes of Higher Education to incorporate environmental literacy and climate literacy into teacher education programming.

# Why is this action needed?

Despite environmental education being a graduation requirement for Maryland students, most preservice teachers are not being exposed to practices, pedagogy and skills around the integration of environmental literacy in the multi-disciplinary classroom. Pre-service teachers often do not see environmental literacy modeled during internships or receive structured outdoor teaching experiences. In order to build the capacity of teachers to teach about and utilize the environment as a context and a setting for teaching, pre-service teachers need exposure and experience.

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The 'Strengthen & Incorporate Environmental Literacy in Teacher Preparation Programs' recommendations and support mechanisms for environmental literacy in teacher preparation would create a consistent pipeline of teachers who enter the profession prepared to meet state mandates for environmental literacy instruction in Maryland. "Just as environmental literacy is the foundation for addressing environmental issues and challenges, pre-service teacher education must be the foundation for environmental literacy capacity building" (McClure & Haines, 2025).

### What does success look like?

This recommendation ensures that Maryland's future educators are trained and confident in helping their students meet the state environmental literacy requirement, helping students develop the knowledge, skills, and attitudes needed to become environmentally literate citizens. Through the integration of environmental literacy learning experiences in pre-service teacher training, teachers graduate and enter the classroom with training in the implementation of curriculum to support student achievement of the Environmental Literacy Standards, therefore supporting K-12 students and Maryland school systems. By embedding environmental literacy into the foundation of teacher preparation, we will create a ripple effect—empowering educators to engage K-12 students in meaningful outdoor learning, real-world environmental problem-solving, and stewardship activities that support Maryland's climate resilience and conservation goals. Success would look like the inclusion of Maryland's teacher preparation program requirements and policies to support and ensure that pre-service teachers receive training in environmental literacy across content disciplines.



# Elevate Climate Literacy by establishing guidelines for a Climate Literate Maryland Graduate

**Working Group** 

Environmental and Climate Literacy

Responsible Party

Subset of OLP Representatives Expected Timeline 12/31/2026

### Action

Develop a guideline document that defines the knowledge, skills, and capacities of a Climate Ready, Career and College Ready Maryland Graduate.

### Key Steps:

- Establish task force from the OLP representatives and community partners. Review existing definitions of climate literacy.
- Draft a Forward-Looking Guideline identifying skills the skills and competencies of a *Climate Literate Maryland Graduate*. Draft submitted to OLP by July 2026
- Map Existing Efforts and Identify Gaps
  - o Assess how climate literacy is currently addressed in:
    - State and local Environmental Literacy Plans & Standards
    - Science, Environmental Science, and Social Studies Standards
    - CTE programs and College/Career Readiness pathways
  - o Identify local stories of excellence and opportunities for integration.
  - o Highlight critical needs and missed opportunities
- Final Guidelines for a Climate Literate Maryland Graduate submitted to OLP by December 2026
  - o The guidelines will inform future standards revisions, planning documents, workforce programs, and state initiatives

# Why is this action needed?

Although Climate literacy is mentioned in the <u>2010 State Environmental Literacy Plan</u> and is referred to in current Science, Environmental Science and Social Studies Standards, local climate change impacts have become more extreme and prevalent. Many localities in Maryland have created climate adaptation and resiliency plans and there are missed opportunities for students and teachers to be engaged in actionable, local project-based learning, not to mention the need to develop new expertise across hundreds of fields and professions for a climate-ready workforce, or the potential consideration of schools as hubs for community preparedness and climate resilience projects.

- Climate Literacy is the next iteration of Environmental Literacy. It brings urgency, equity, systems-thinking, and solutions into focus, preparing Maryland Graduates for both local resilience and global change.
- Maryland's climate impacts are accelerating.
   Communities are developing resiliency and adaptation plans, yet students and teachers are often not engaged in local, career-connected, or project-based climate learning.
- There is a documented knowledge gap. National reports, such as the 2025 Climate Literacy
   <u>Snapshot</u> (Aspen Institute / EdWeek), show students lack understanding of basic climate
   concepts. Maryland risks falling behind other states with advancing coordinated climate
   education
- Workforce and community resilience needs are growing. Jurisdictions in Maryland have or are developing Climate Action Plans. Employers need expertise in sustainability beyond what our current graduate pool can provide. Schools can serve as hubs of resilience, education, and workforce development.
- State commitments require climate integration:
  - o Maryland Department of the Environment's Comprehensive Climate Action Plan
  - o MSDE's commitments to adopt climate-focused literacy standards
  - o Expansion of CTE pathways for climate-ready careers
  - o Alignment with the Blueprint for Maryland's Future (Pillar 3.3)
- Aligns with the Blueprint:
  - The Blueprint prioritizes a globally competitive workforce and college and career readiness (Pillar 3). The state will need thousands of new professionals across fields like energy, transportation, agriculture, engineering, resiliency planning, public health, and infrastructure—requiring deep climate literacy.
  - Equity and access (Pillar 4) demand climate literacy that reaches underserved, rural, low-income, and coastal communities, where impacts and opportunities are most pressing.
  - o High-quality instruction (Pillar 2) requires guidance and professional learning so that educators can embed climate science, problem-solving, and local relevance into standards-based instruction across disciplines.
  - o Schools as community hubs (Pillar 4) align with the growing role of schools in preparedness, resiliency, youth leadership, and local action planning.
- National Research Alignment:
  - o We will use as reference several national groups including the Multi-sector US Global Change Research Group guidelines from 2024 *Climate Literacy Essential Principles*

Maryland must take a leadership role by defining how education supports a climate-ready workforce and resilient communities—ensuring every Maryland Graduate is equipped for a changing world.

# What does success look like?

The guideline document becomes a shared, multidisciplinary framework that influences:

- State and local environmental literacy plans & standards and revisions
- Science, health and social studies standards and revisions
- CTE and college/career readiness programs and revisions

• Agency initiatives, grants, and regional implementation efforts

Within four years, Maryland will see the following trends:

- Climate Education
  - Students show increased understanding of Maryland-specific climate impacts through assessments, classroom projects, and interdisciplinary learning.
- Workforce Skills Development
   CTE pathways, training programs, and postsecondary options reflect emerging climate-related careers across energy, resiliency planning, transportation, agriculture, technology, and more.
- Equity and Participation
   Surveys and community feedback indicate that students—especially in underserved, rural, coastal, and low-income communities—feel informed, represented, and empowered to act.
- Community Integration
   Local education agencies and students engage in the development and implementation of local Climate Action Plans.
- Statewide Resilience
   Schools and districts play proactive roles in preparing communities and families for climate impacts, including emergency preparedness and resilience planning.

#### Vision of Success:

Maryland becomes a state where people understand climate change and feel ready to take action. Maryland Graduates are equipped with the science and problem-solving skills to make a difference. Communities—from the mountains to the coast—collaborate to reduce emissions, use clean energy, build resilience, and prepare the next generation for climate-forward career pathways. Knowledge, skills, and action align to create a fair, resilient, and climate-ready future.



# Facilitate a gathering of LEA facilities and operations staff around sustainability

**Working Group** 

Responsible Party Subset of OLP School Sustainability

Representatives

**Expected Timeline** 12/31/2026

### Action

Facilitate a quarterly gathering of LEA facilities and operations staff to discuss and further k-12 school decarbonization. The series of three virtual meetings and one in-person meeting at the Sustainable Schools Summit at the MAEOE conference, are designed to help public school district leaders. maintenance teams, and operations staff exchange strategies, share challenges, and access resources to accelerate decarbonization of school facilities.

Maryland Energy Administration (MEA) will co-host the series with OLP and MAEOE and provide highlevel support to shape strategy, content, and outreach.

# Why is this action needed?

MEA web documented rational for decarbonization efforts:

MEA and the Interagency Commission on School Construction (IAC) are collaborating to help Local Education Agencies (LEAs) to develop capacity and advance strategies for promoting clean and efficient energy use within their portfolio of current and future K-12 schools and support facilities.

The overall intent of the Decarbonizing Public Schools Program is to prepare LEAs, also known as school districts, to expand their capacity to manage energy data and to reduce energy use and greenhouse gas emissions while designing for future high-performance schools.

All 24 LEAs are being asked to participate but are at different stages capacity building and data management as they plan for Net Zero Energy (NZE) construction.

Maryland LEAs will build the capacity for managing energy data, reduce operating costs, and insert energy performance criteria into capital improvement planning. The primary objective of the program is to improve the energy efficiency and decrease the lifecycle expenses of educational facilities, thereby diminishing greenhouse gas (GHG) emissions across the entire collection of properties. This collection, referred to as a "portfolio," encompasses all the buildings and facilities that are under the ownership and management of the LEA.

There is funding from the Strategic Energy Investment Fund, Climate Action Plan and Alternative Compliance Program to help LEAs develop and expand their capacity to address ongoing challenges and opportunities for controlling costs through energy data management, net zero energy design considerations for public school portfolio planning, solar installations and energy efficiency upgrades. Grant funding will be offered for multiple areas of interest (AOI).

### What does success look like?

LEAs send teams from facilities and operations to attend virtual meetings and the Sustainable Schools Summit in February 2026. LEAs have an opportunity to share best practices and success. 100% of LEAs participate.



# Maintain & Align State Networks Supporting Environmental Literacy

**Working Group** 

Networks

**Responsible Party** 

Subset of OLP Representatives **Expected Timeline** 

12/31/2026

### Action

In 2026, identify and describe the purpose and audience of existing formal and nonformal education networks working at the state and sub-state level (e.g. Eastern Shore, Western Maryland, etc.) within Maryland to advance environmental education. Create a state-level network strategy that outlines how each of these networks will draw on their expertise, resources, and operating practices to meet the needs of school districts and their partners. The network strategy should describe processes for ongoing communication across networks and identify opportunities to collaborate across networks.

The following elements will be produced as a result of this action:

- 1-pagers for each state and sub-state network that outline a shared understanding of the following:
  - Network's primary audience (membership and those the network is designed to serve)
  - Network purpose/definition/function, authorization/funding (if applicable), the needs the network was developed to address, priorities, and structure
  - A description of any data collected by the network or data calls supported by the network
- Describe and/or develop formal communication and collaboration structures and opportunities across the networks

# Why is this action needed?

Both MSDE and the Maryland Environmental Literacy Advisory Network (MELAN) as well as other complimentary networks are working to build and support networks and regional network hub structures to increase capacity to make the most out of local and emergent opportunities and address challenges as they arise. The MSDE networks are focused on the formal education community while the MELAN network and the network hubs are often led by nonformal educators.\_To increase both efficiency and effectiveness, efforts should be made to continue to intentionally align existing networks towards shared goals and objectives as they seek to connect the formal and nonformal communities.

A key action step for this recommendation is the development of 1-pagers that describes the various networks operating in support of Environmental Literacy and clearly describe the purpose of the networks, the needs they are addressing and the audience they serve.

In addition, each of these networks is collecting (or supporting the collection of) data from school districts and their partners. For example, MELAN is collecting data about environmental literacy

providers and programs to describe the landscape of environmental literacy throughout the state. MSDE is supporting the collection of data on behalf of the Chesapeake Bay Program Environmental Literacy Indicator Tool (ELIT) directly from school districts about their environmentally literacy planning and programming. Each of these (and other data) serve as decision support tools for school districts and their partners, and if taken together will paint a richer picture of the status, lessons learned, and challenges of environmental literacy implementation.

### What does success look like?

Maintaining strong, connected networks for formal and nonformal education communities will ensure that school districts are supported in their efforts to develop and implement environmental literacy plans and programs. Sharing lessons learned across school districts situated in similar environmental, political, and cultural contexts helps school districts and their partners to strengthen their programs and problem solve similar challenges. By strategically bridging the formal and nonformal spaces, each community can better understand the needs and interests of the other and can, therefore, bring their knowledge and resources to the challenge of ensuring that all students graduate environmentally literate.

In addition, MELAN and MSDE networks each have representation at the state level, ensuring that the learning happening in the regions are understood at the state level so it can be used to inform policy and practices.



# Revise the Conservation Careers Guide

Working Group

College and Green Careers

Responsible Party

Subset of OLP Representatives **Expected Timeline** 

12/31/2026

### Action

Update the 2020 MD Conservation Careers Guide - <u>linked here</u> to include new industries, career spotlights, and chapter on MD Youth Apprenticeships.

# Why is this action needed?

In 2020, the then Project Green Classrooms launched the 1<sup>st</sup> Maryland Conservation Careers Guide (Career Guide) after years of work and effort from industry leaders in and outside of the partnership. Since then, it has been finalized as a pdf and webpages hosted on the DNR site and is a tool for youth exploring conservation careers, young professionals interested in increasing their skills and career changers seeking new networks. (It is important to note that the term "conservation careers" was settled on after a poll of young professionals who preferred this term to "green careers", but the guide is not limited to conservation industries but has a broader reach for all work that touches on the environmental field.)

The guide consists of 4 chapters: Why a Conservation Career, Find Your Fit, Learning Skills, and Applying for Jobs. Throughout the chapters readers can see Career Spotlights from current professionals and learn about their career pathway and the daily tasks of their work; understand which professional certifications are available in the industry and where to find programs in MD which offer these opportunities. It has served as an invaluable tool for youth as well as teachers and career counselors helping job seekers to find an arena which fits their needs.

Over the last 5 years, the connection to college and green careers has expanded greatly offering new pathways to conservation work. The current guide does not include several industries, such as those relating to climate policy, renewable energy, carbon reduction, and blue/green economy. These are upcoming workforce needs for a sustainable future which offer exciting career paths. Also, since the publishing of the Career Guide MSDE, in support of the Blueprint for Maryland's Future, has finalized the pathways of Youth Apprenticeships which allow MD students an opportunity to gain hands-on job experiences and an Industry Recognized Credential (IRC). Youth apprenticeships and IRCs are a relatively new and unknown opportunity for many youth and many environmental educators are unfamiliar with how to offer these career developing touchpoints.

What does success look like?

The updated Career Guide would include additional chapters highlighting: resources on creating and applying for Youth Apprenticeships which are beneficial for youth and future employers; industry deep dive into additional conservation career fields and other career disciplines (policy, climate, blue/green economy, renewable resources, etc); and additional refreshed career spotlights for these newly added industries.

While not exactly the Career Guide itself, supplemental outreach resources could be created for easy of communication. Because the Career Guide is already more than 80 pages and was never indented as a full-read resource, splash sheets or social media posts of eye-catching info graphics or summaries would be a useful aid; ie. employers attending career events who want to explain what their jobs offer. These supplemental materials could be a template to others wanting to advance conservation career awareness.



# Work to create equitable access to Outdoor Learning for All Maryland Students through the establishment of an Ad Hoc Committee on Data

**Working Group** 

**Responsible Party** Access to Nature

Subset of OLP Representatives **Expected Timeline** 

12/30/2026

### Action

The Ad Hoc Committee, composed of OLP members, will establish what outdoor, environmental and climate change education efforts are successfully underway at each LEA, quantify and classify students served, identify the partners involved and illuminate remaining gaps and inequities. In order to accomplish this, over the next 12 months the Ad Hoc Committee will:

- Collaborate with OLP membership to determine the existing data needs
- Compile and review all existing data from providers, LEAs and schools (e.g. Environmental Literacy Indicator Tool)
- Conduct interviews building trust and common purpose with relevant school/LEA staff (e.g. ELIT Coordinators, principals, field trip office, etc.) and with the provider community, Interviews focus on:
  - Relevant programming provided to students
  - Where programming is provided (e.g. schoolyard, nature center, outdoor school)
  - Which students participate (e.g. schoolwide, grade level, class participation)
  - Any costs (e.g. materials, transportation, fees) associated with participation and how cost is borne (e.g. school/district budget, parents)
  - Challenges to providing programming
  - Other relevant subjects to be determined through OLP collaboration
- Generate case studies to highlight successes within schools/LEAs
- Conduct interviews of relevant state agencies regarding data contributions and needs
- Examine processes in other states where data application has resulted in greater equity in outdoor learning
- Generate summary report based on consolidation of existing data and Ad Hoc Committee
- Make recommendations on the best management of data acquisition and management to ensure an active and continual process of building access and equity to outdoor learning in Maryland.

# Why is this action needed?

In order to effectively discharge the responsibilities of the OLP in accordance with the Executive Order, the OLP must establish an AD Hoc Committee on Data to understand gaps in access, equity, and

utilization of our resources, as well as opportunities to fully implement Outdoor Learning for All Maryland Students

### What does success look like?

Success is greater than the effective collection and dissemination of data. It is in its ultimate use to align our efforts and resources to provide equitable access to outdoor learning for all Maryland students. This effort builds the data set needed to support legislative action. The work of the Ad Hoc Committee on Data will lead to thorough understanding of the outdoor learning landscape, identifying the challenges to overcome and the success on which we can build. This will enable us to create the "Portrait of a Graduate" with clear demonstration of all the benefits of what we are driving for as it relates to the mental health of our students, the positive impact on the environment, and the economic benefits of both. The summary report will inform our work as a state and the recommendations for data acquisition and management will ensure the efficacy of our actions to come.