



Environmental Literacy

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WELCOME TO OUR EDUCATION
PARTNERS!!

TO BE DEVELOPED

MINDFULNESS MOMENT FOCUS ON
YOUTH ENGAGEMENT...

Pictures

Reflection Question



Context

- Coming out of COVID
 - *Schools dealing with unprecedented large scale learning loss*
 - *Supporting structures and education staff at partner orgs largely intact*
 - *Many individual programs disrupted or halted (uneven across districts)*
- Funding
 - *NOAA B-WET in President's Budget for first time*
 - *School districts received large amounts of COVID relief funding*
 - *Potential for more \$\$ from several Biden Administration priorities*
 - **none provide sustainable funding, but if leveraged can help advance work*



State Efforts - DC

- Updated Environmental Literacy Plan in 2020
- Established Environmental Literacy Advisory Committee
- Piloted Capital LEAF - a pathway to U.S. Green Ribbon School recognition
- Revising social studies standards
 - *Students will investigate society's impact on environment and equitable access to natural resources*



State Efforts - DE

- The Delaware Association for Environmental Education (DAEE) is localizing the MWEE Facilitator's Guide
- Piloting the development of district level environmental literacy plans
- First state to pilot NGSX: Oceans, Climate Science and Big Data (focused on watersheds & the oceans)
- Increased focus on connection CTE with Environmental Literacy
- Hosted 3rd annual DE Youth Summit



State Efforts - MD

- Established new Environmental Literacy standards
- Enacted Maryland Green Schools Act of 2019
 - *\$1.5M to grow the number of Green Schools in Maryland by 50% by 2026*
- Project Green Classrooms received grant to support professional learning about environmental literacy for faculty who reach pre-service teachers



State Efforts - PA

- Moving new PA Integrated Standards for Science, Environment, Ecology, Technology and Engineering towards adoption
- PA Environmental Literacy Task Force convenes partners with the goal of more and better MWEEs
- DEP grant funding increased to \$633K
 - *63 projects funded with 92% of them in identified EJ areas*



State Efforts - VA

- 2 new Environmental Literacy Coordinator positions proposed in the state budget for DCR
 - *Will work to coordinate a state environmental literacy strategy*
- Virginia Association for Environmental Education (VAEE) hired its first part-time Executive Director
- VAEE and VRUEC – two major partners for EE in VA – have committed to enhanced collaboration and are exploring the development of a state network for EE



High Level Needs

1. Establish environment-focused pathways in both Career Technical Education (CTE) and STEM for each state.
2. Sustainable funding to implement systemic environmental literacy programming in each school district.
3. Up-to-date data and information from every school district in the watershed on their efforts to create and sustain EL programming.



Student Outcome

*Tom Ackerman,
Chesapeake Bay Foundation
Education Workgroup Co-Chair*

*Elise Trelegan,
NOAA Chesapeake Bay Office,
Education Workgroup Leadership*

Through the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program has committed to...

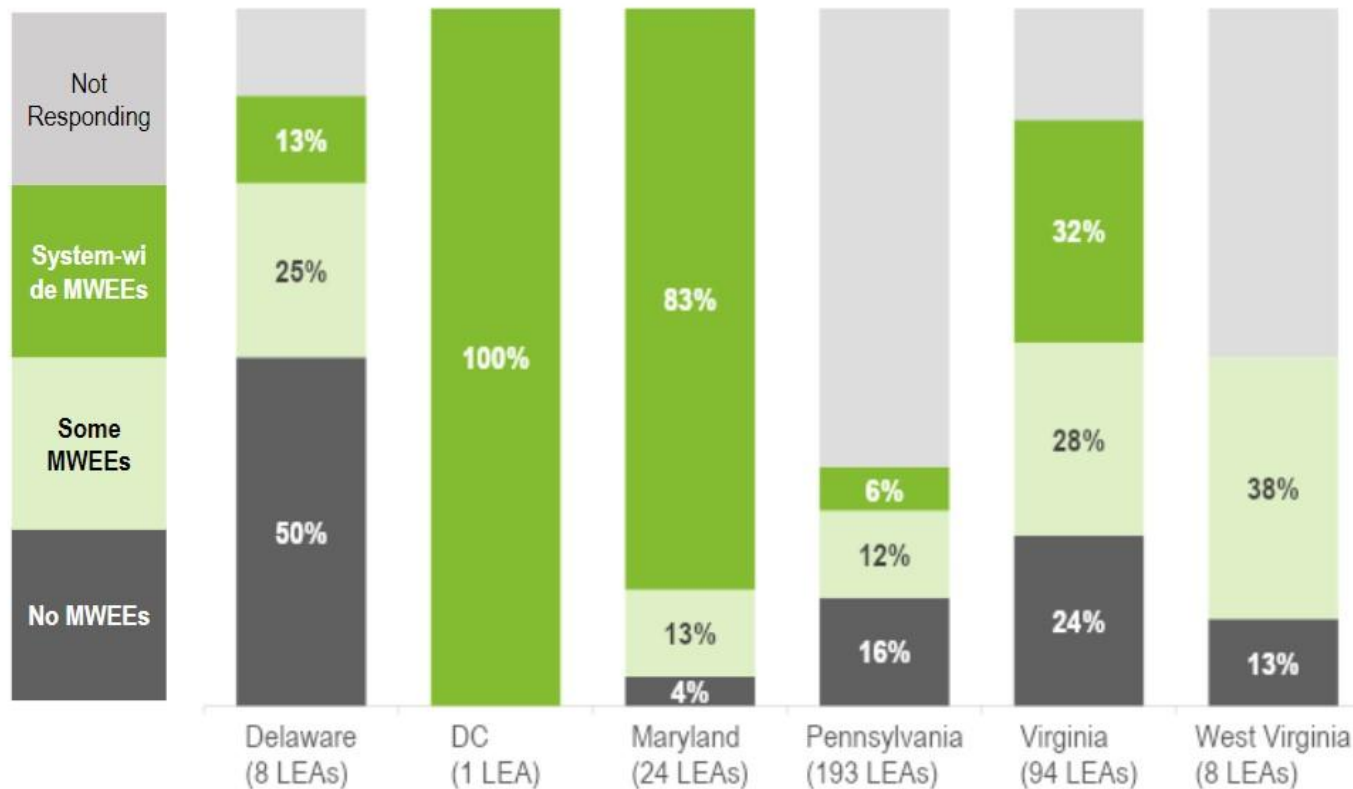


Goal: Environmental Literacy

Student Outcome: Continually increase students' age-appropriate understanding of the watershed through participation in teacher-supported, meaningful watershed educational experiences and rigorous, inquiry-based instruction, with a target of at least one meaningful watershed educational experience in elementary, middle and high school depending on available resources.

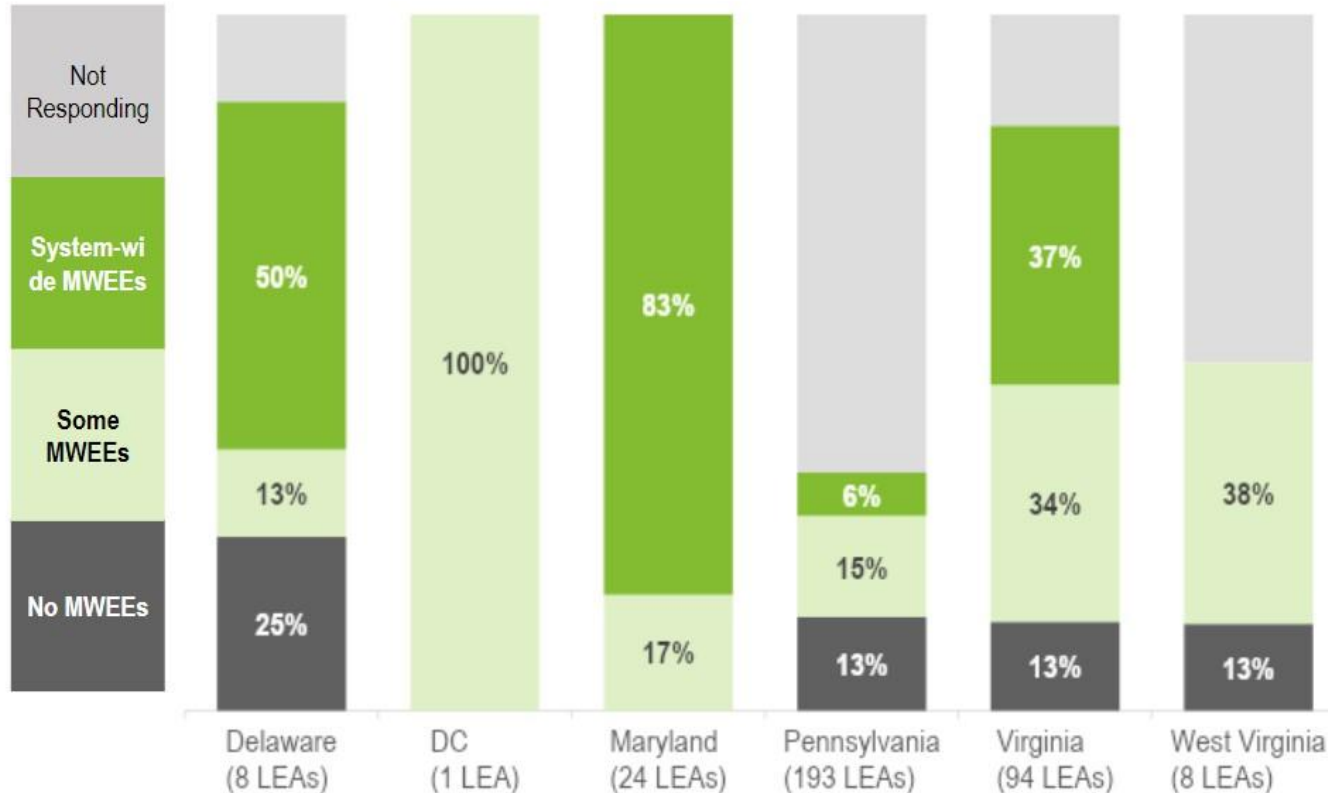
Students from Warwick High School in Lititz, Pa., take a water quality sample from Lititz Run. (Photo by Will Parson/Chesapeake Bay Program)

Elementary Grades: MWEE Availability, by State of LEAs within Chesapeake Bay Watershed (2019)



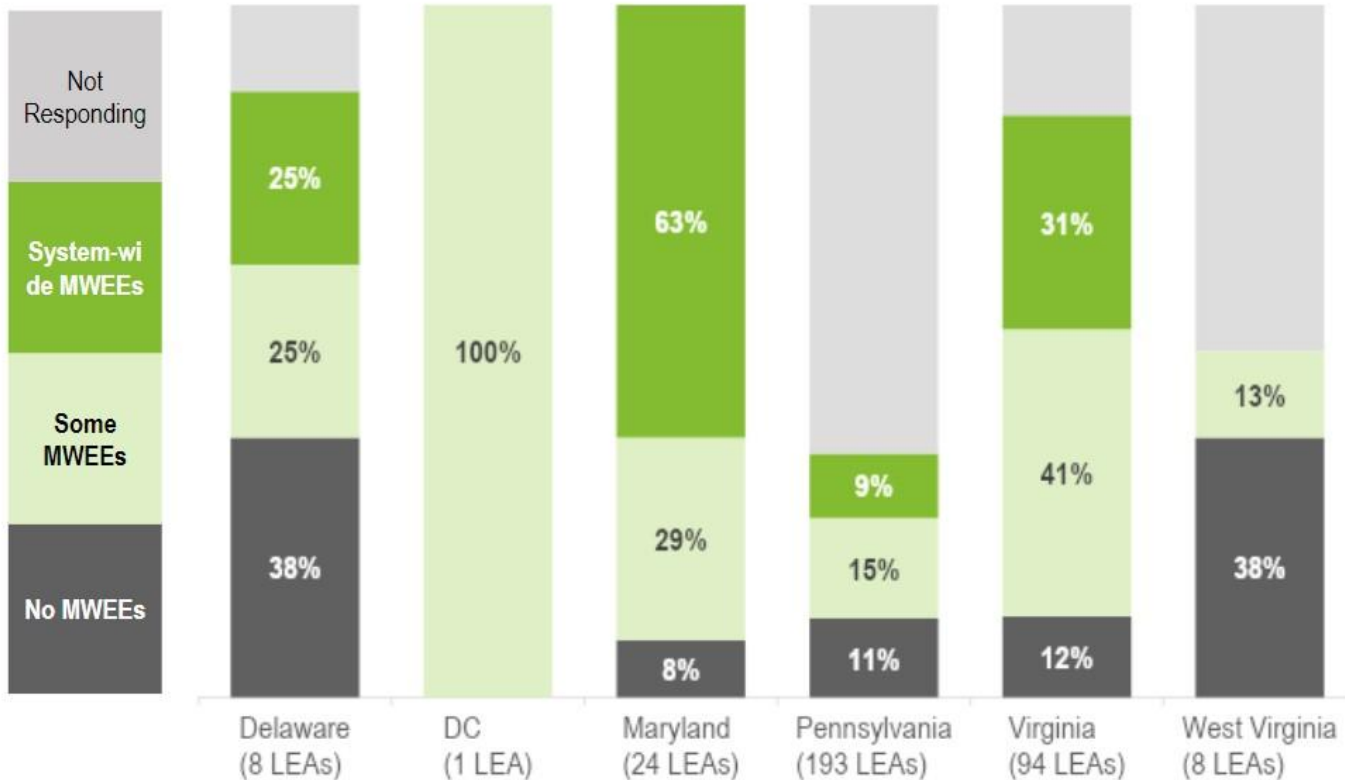
2019 Environmental Literacy Indicator Tool (ELIT) data, self-reported at the school district level. Next ELIT survey will be administered in 2022.

Middle Grades: MWEE Availability, by State of LEAs within Chesapeake Bay Watershed (2019)



2019 Environmental Literacy Indicator Tool (ELIT) data, self-reported at the school district level. Next ELIT survey will be administered in 2022.

High School Grades: MWEE Availability, by State of LEAs within Chesapeake Bay Watershed (2019)



2019 Environmental Literacy Indicator Tool (ELIT) data, self-reported at the school district level. Next ELIT survey will be administered in 2022.



Learn

What have we learned in the last two years?



Successes and Challenges

- COVID-19
 - *Fewer MWEEs occurred and for those that adapted, important elements were lacking. Due to this we captured fewer exemplar Environmental Literacy Models (ELMs)*
 - *Efforts to strategically engage preservice teacher programs and increase awareness with district administrators/superintendent slowed*
 - *EE community leveraged digital technology for virtual professional development.*
- Actions connected to grant-funded work are mostly on track
- State Departments of Education and Local School Systems recognize and refer to MWEEs to a greater degree.



On the Horizon

- Continue virtual professional development
- Increase staff dedicated to coordinating field experiences, supporting student action, and developing partnerships
- Identify ways to overcome the transportation cost barrier
- Connect MWEEs and environmental education to other significant education priorities
- Focus on systemic, equitable, and sustainable as framing for MWEE implementation

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Adapt

How does all of this impact our work?



Based on what we learned, we plan to ...

- Leverage research demonstrating the health and safety benefits of outdoor learning
- Build on the Regional Outdoor Learning Network (ROLN) initiative within states and within Bay Program partnership
- Address the costs associated with systemic and sustainable programs (needed for district-level planning and professional development)
- Align with state and local education priorities (STEM, workforce, social-emotional learning, agriculture ed, etc.)



Equitable and inclusive restoration ...

- Partners and funders using ELIT/ Equity Mapper used to identify priority geographies
- Increasing communication among funding entities to more equitably distribute existing funding
- The Outdoor Learning Network Initiative (OLNI) provides funding, grant management, and systemic partnership expertise to under resourced districts.



Awareness

- The pre-service teacher training programs need to incorporate environmental literacy
- Environmental Literacy needs to be better connected with CTE/STEM/Social and Emotional Learning /Ag Science – as an avenue to diversifying workforce
- Include environmental literacy funding opportunities as an allowable use for federal and state funds, including pandemic recovery funding.

Student Outcome Discussion

In the spirit of networks, partnerships, and funding, are there existing state initiatives that could be supportive of the Student Outcome (MWEE)?

QUARTERLY PROGRESS MEETING – May, 2022
Chesapeake Bay Program



Sustainable Schools

Erin Sullivan
EPA Region 3
Education Workgroup Leadership

Through the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program has committed to...

Goal: Environmental Literacy

Sustainable Schools Outcome:

Continually increase the number of schools in the region that reduce the impact of their buildings and grounds on their local watershed, environment and human health through best practices, including student-led protection and restoration projects.

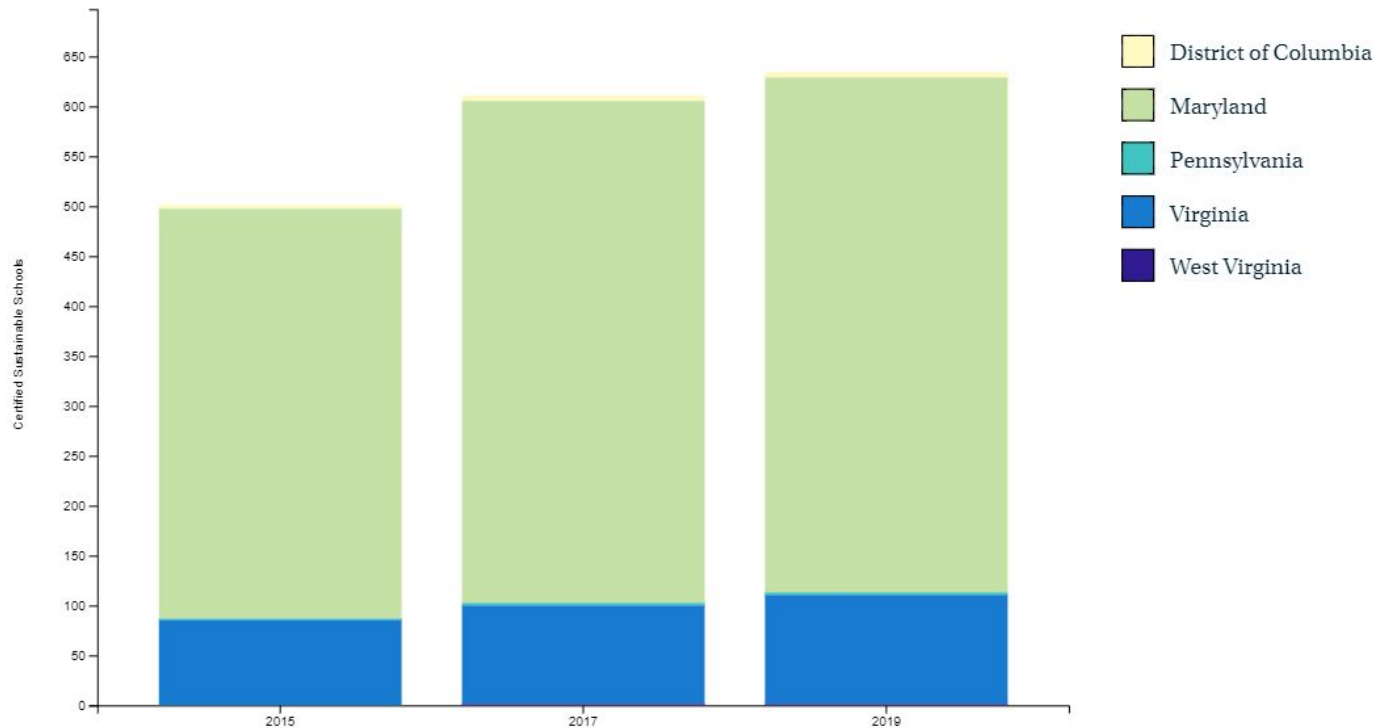


Students from Queen Anne's County High School in Centreville, Md., look for macroinvertebrates in a stream during an environmental education activity. (Photo courtesy of Suzanne Sullivan/ShoreRivers)

Certified Sustainable Schools in the Chesapeake Bay Watershed (2015-2019)

Certified sustainable public and charter schools have been recognized by the following programs: U.S. Green Ribbon Schools, National Wildlife Federation Eco-Schools USA, Md. Green Schools, Pa. Pathways to Green Schools and Va. Naturally Schools.

[VIEW CHART](#) [VIEW TABLE](#)





Certified Sustainable Schools in the Chesapeake Bay Watershed (2015-2019) [↗](#)

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[VIEW CHART](#) [VIEW TABLE](#)

Year	District of Columbia	Maryland	Pennsylvania	Virginia	West Virginia
2015	4	410	1	86	0
2017	5	503	2	99	1
2019	5	516	2	110	1



Learn

What have we learned in the last two years?



Successes and Challenges

- COVID-19 Pandemic:
 - School closures/ reopenings have halted or slowed student involvement in sustainable school activities
 - Sustainability projects seen as “extras”
 - Increase in disposable items (ex. lunch trays and facemasks)
- + Increased recognition of the benefits of outdoor learning
- + More conversations related to climate change as a result of being outdoors



Looking Back/ On the Horizon

Scientific Impacts:

- Heightened attention on the health benefits associated with outdoor learning

Fiscal Impacts:

- New funding resources (ex. ESSER) used to improved school infrastructure *sometimes* used to facilitate outdoor learning



Looking Back/ On the Horizon

Policy Impacts:

- MD: smaller grants have supported school composting projects
- WV: reopened website to accept “Green Ribbon Schools” applications
- PA: expanded recognition levels for schools and institutions (ex. DEIJ, agriculture education, curriculum integration, etc.)
- NAAEE issued “Guide to Advocating for Outdoor Classrooms in Coronavirus-Era School Reopening.”

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Adapt

How does all of this impact our work?



Based on what we learned, we plan to ...

- Administer ELIT Survey; Data Update to Chesapeake Progress
 - *Watershed-wide, anticipate that the # of Sustainable Schools will be maintained/ slightly decreased due to COVID-19 challenges and program changes*
- Return to sustainability projects
- Focus on connection between outdoor learning and social-emotional learning (SEL)
- Strategically engage additional resources coming from Biden Administration (ex. Bipartisan Infrastructure Law, various EOs, Action Plan for Building Better School Infrastructure)



Equitable and inclusive restoration ...

- Prioritize sustainable school efforts in all schools, with emphasis on schools in underserved communities
- Determine how to incorporate data related to health disparities and social determinants of health
- Promote sustainability projects, create healthier learning environments, make connections to env. literacy and green jobs...while reducing costs and creating savings
- Align with environmental justice and climate change priorities



Awareness

- Continue to look for opportunities to apply for and spend Bipartisan Infrastructure Law \$\$\$ to create healthier schools.
 - *Example: Schools with their own water systems can apply for EPA WIIN grants. Where are these schools?*
- Assist with White House's "Action Plan for Building Better School Infrastructure" to upgrade public schools with modern, clean, energy efficient facilities and transportation
 - *Under this Action Plan, the Department of Education is proposing a new Office of Infrastructure and Sustainability, as part of the President's FY2023 Budget - help make connections!*
- Support new "No Child Left Inside Act," co-authored by MD Congressman Sarbanes, could provide \$150M annually thru 2027

Sustainable Schools Discussion

Given the expected funding increase and potential for new legislation to improve school infrastructure and enhanced EE...

How can we get ahead? What resources would be useful for you and the stakeholders with whom you work?

QUARTERLY PROGRESS MEETING – May, 2022
Chesapeake Bay Program



Environmental Literacy Planning

Shannon Sprague
NOAA Chesapeake Bay
Environmental Literacy Workgroup Co-Chair

Through the Chesapeake Bay Watershed Agreement, the Chesapeake Bay Program has committed to...

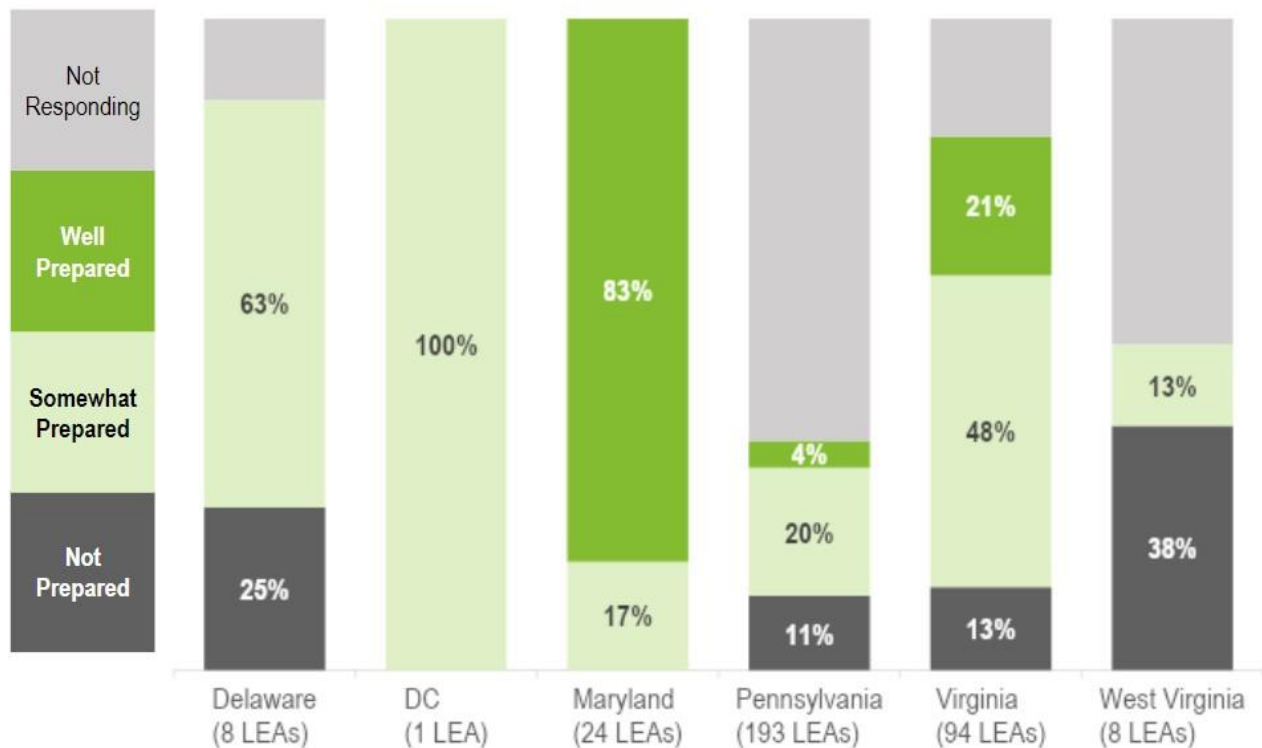
Goal: Environmental Literacy



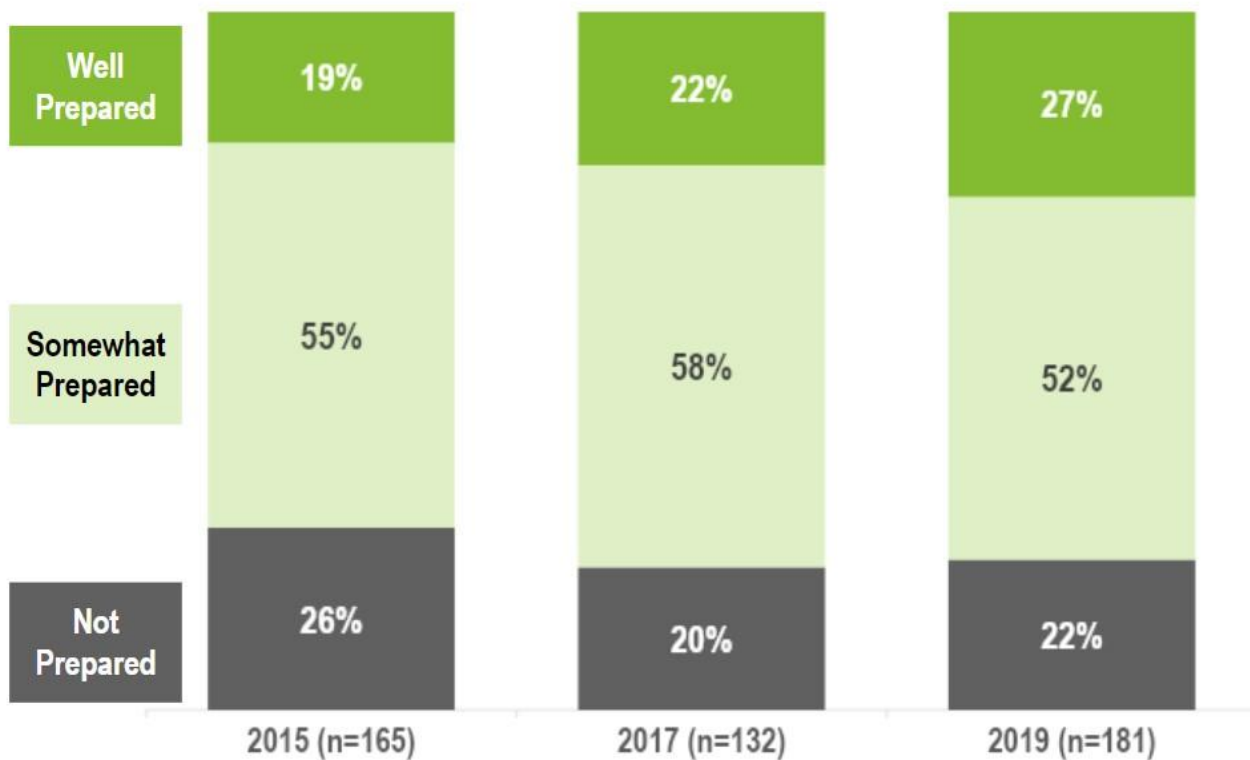
Planning Outcome:

Each participating Bay jurisdiction should develop a comprehensive and systemic approach to environmental literacy for all students in the region that includes policies, practices and voluntary metrics that support the environmental literacy Goals and Outcomes of this Agreement.

Environmental Literacy Preparedness: By State of LEAs within Chesapeake Bay Watershed (2019)



Environmental Literacy Preparedness (2015 - 2019)





Learn

What have we learned in the last two years?



Successes and Challenges

What Worked

- Resources tailored to state priorities
- Mid-Atlantic Environmental Education Network
- Outdoor Learning Network Initiative
- Leadership Summit

What Didn't Work (yet!)

- Figuring out sustainable funding model
- Collecting and distributing examples



On the Horizon

Funding

- First round of NOAA B-WET grants focused on school district capacity building
- Potential for large, short-term influx of funding to school districts

Networks

- Shift from establishing/learning to implementing State Networks in Mid-Atlantic Environmental Literacy Network

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Adapt

How does all of this impact our work?



Based on what we learned, we plan to ...

- Provide technical assistance to strengthen and diversify environmental literacy networks
- Support state efforts to develop district-level environmental literacy plans
- Assess impact of COVID-19 through ELIT Survey
- Determine cost of MWEE implementation and work to fill the gap
- Continue Leadership Summits



Equitable and inclusive restoration ...

- Working with CBP data team to ensure up-to-date information on Diversity Dashboard
- Encouraging states and other funders to use that data to identify priority geographies
- Supporting Outdoor Learning Network Initiative (OLNI)
- Increasing state and regional Network Development



Awareness

Critical gap at the Chesapeake Bay Program:

- No Workgroup focused on youth who have graduated from high school but have yet to settle into career path (e.g. college students; first jobs; internships)
- Creates gap for Workforce conversations

Planning Discussion

In your states or agencies, what efforts exist that are focused on creating a more diverse workforce in environmental fields?



Help

*How can the Management Board
lead the Program to adapt?*



Help Needed

Needed to achieve the Environmental Literacy Goal

Establish environment-focused pathways in both Career Technical Education (CTE) and STEM for each state to produce workforce ready graduates.

Actions to help partially address that need

1. Nominate staff from your agency and/or workgroup to participate in a conversation around diversifying the environmental workforce through youth programs (high school/first jobs/college), including exploring intentional pathways involving CTE/STEM. Send us names by May 26th.
2. Establishment of cross-GIT effort in Chesapeake Bay Program focused on Workforce pathways (Education Workgroup, Diversity Workgroup, STAC, others).



Help Needed

Needed to achieve the Environmental Literacy Goal

Sustainable funding to implement systemic environmental literacy programming in each school district.

Action to help partially address that need

Department of Education representatives/Management Board Members: We need to first understand the cost required to implement and sustain systemic MWEs in your state, and how to collect this data. Potential options:

- a. State departments of education distribute a funding survey with ELIT survey
- b. Use technical contract to host interviews (example: buffers)
- c. Other ideas?



Help Needed

Needed to achieve the Environmental Literacy Goal

Up-to-date data and information from every school district in the watershed on their efforts to create and sustain EL programming.

Action to help partially address that need

- Department of Education representatives: Send the Environmental Literacy Indicator Tool (ELIT) survey to district superintendents and content supervisors for each of the school districts in your states.
- Management Board Members: Encourage your education staff to reach out to school districts that they work with to support them with filling out the ELIT survey.



Help Needed

Needed to achieve the Environmental Literacy Goal

Maintain high level focus and coordination on Environmental Literacy Goal of state cabinet members and partners.

Action to help partially address that need

- It is Maryland's opportunity to host the 2023 Environmental Literacy Summit. PSC is the co-host of the event with Education Workgroup. Need agreement from Maryland PSC representative to co-host, and staff level contact(s) to begin planning in Fall.



Discussion