



Student MWEEs

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



Goal: *Environmental Literacy*

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



What We Want



Ensure appropriate and sufficient staff at state agencies to meaningfully advance student MWEEs

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Setting the Stage:

What are our assumptions?



What is a MWEE?

- Students participate in robust unit of study designed to increase understanding and stewardship of the Chesapeake Bay and its local watersheds
- Definition based on environmental education research (2012 STAC workshop)
- Four essential elements:
 - Issue definition
 - Outdoor field experiences
 - Action Projects
 - Synthesis and Conclusions



Logic Behind Our Outcome

Following the Decision Framework:

Factors Influencing

- State-level leadership/advocacy
- School district support
- Education Reform
- Funding
- Culture disconnected from Nature



Logic Behind Our Outcome

Factors Influencing

State-level leadership/advocacy

High level support for environmental literacy that flows from administrations/legislatures to school districts to create a shared vision for environmental literacy.



Logic Behind Our Outcome

Current Efforts and Gaps

There are effective strategies occurring at varying levels in each jurisdiction:

- Working group for state-level coordination
- Targeted teacher trainings
- Regional meetings of school districts
- High level communication with superintendents
- Promotion of school district EL plans



Logic Behind Our Outcome

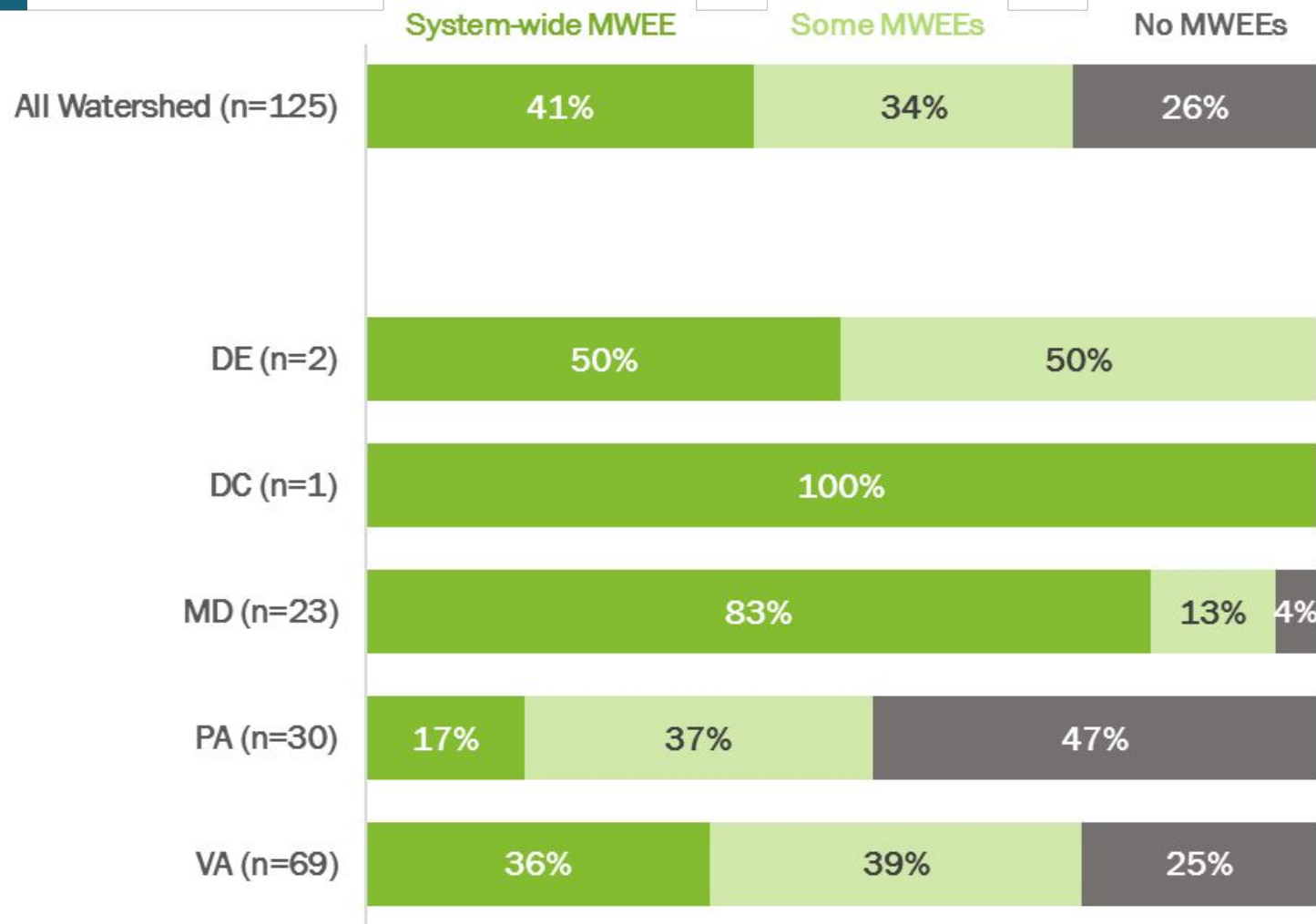
Management Approaches

- Promote sustained teacher professional development
- Promote, develop, and implement MWEs with educators, local education agencies, school administrators, and third party providers
- Ensure that rigorous content is effectively represented in the Standards of Learning and curriculum frameworks

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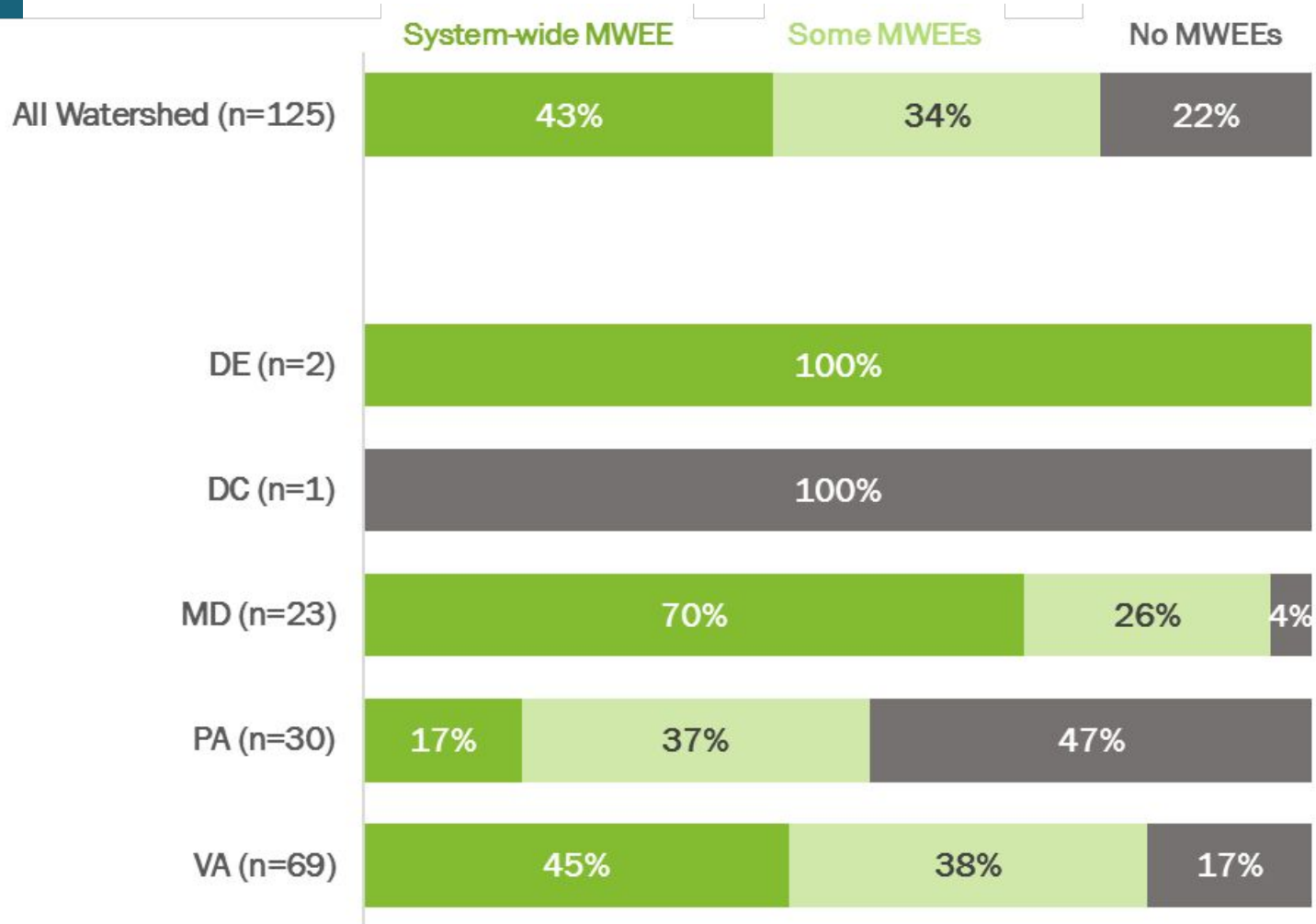
Progress:

Are we doing what we said we would do?



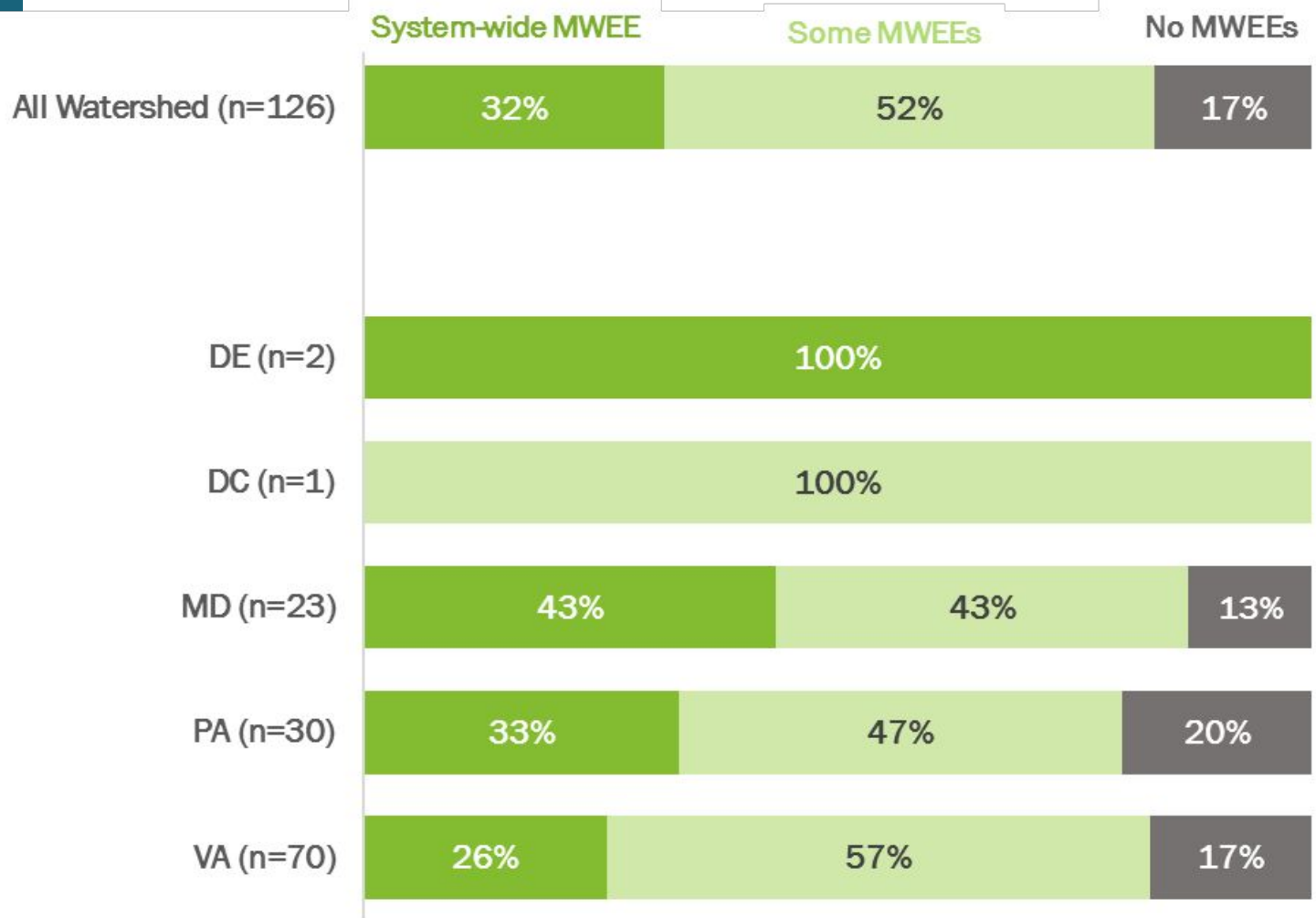
Elementary School MWEE Implementation

*41% have systemic
MWEE programs*



***Middle School
MWEE
Implementation***

*43% have
systemic MWEE
programs*



***High School
MWEE
Implementation***

*32% have
systemic MWEE
programs*



Are we on track?

- No specific target identified
- Prevalence of system-wide MWEs relatively steady between 2015 and 2017
 - *Elementary school showed increase (37% to 41%) largely attributable to increases in Maryland*
 - *Middle school and high school rates were within 1%*





Analysis

Critical actions to date:

- **ELIT Survey** and **Regional collaboration** identified previously...
- **Targeted funding for MWEEs:**
federal and state grants supporting student MWEEs and capacity building

Critical actions moving forward:

- Deliver training on **MWEE Guide** to teachers, principals, and environmental education providers (online and in-person)
- Increase **school district** technical assistance
- + everything listed above



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Challenges:

Are our actions having the expected effect?

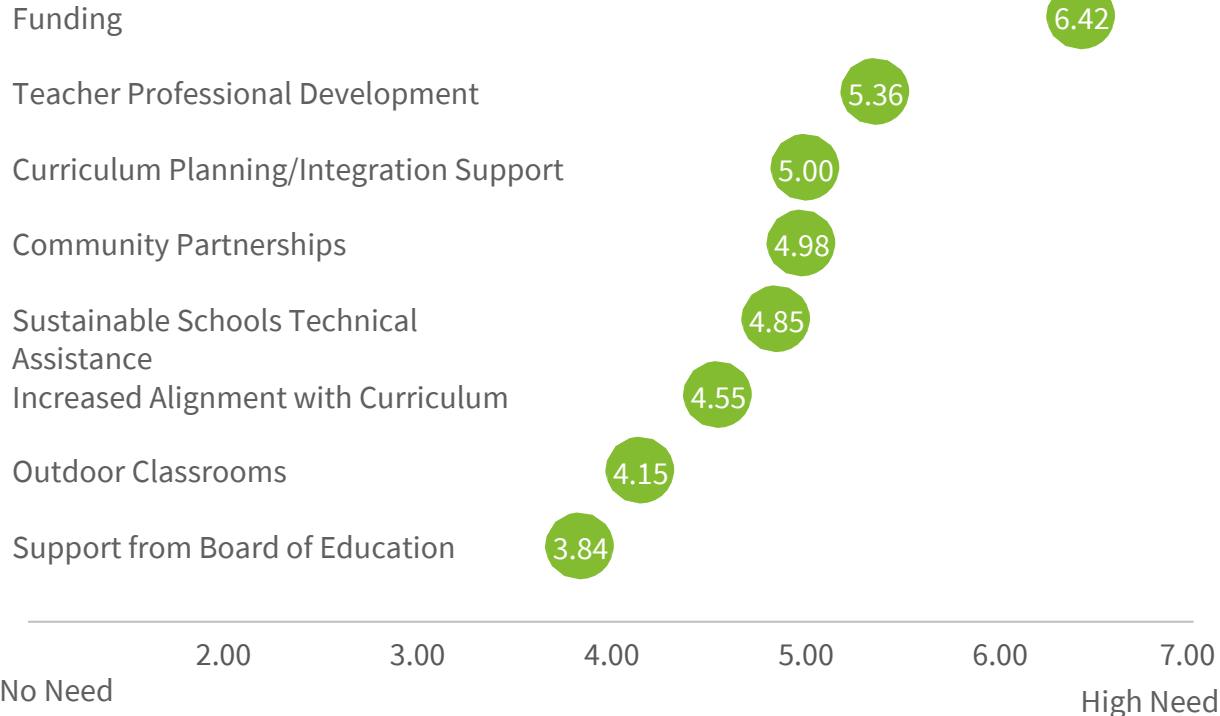


Challenges



- **State Depts of Education MWEE support:** some value it, others ignore it, some are in the middle
- **State Dept of Education staffing:** Often no dedicated staff
- **Resource agency staffing:** Education staff generally not focused on MWEEs
- **Competing priorities:** Principals and teachers need to be responsive to testing, new standards, 21st century skills, etc. (MWEE seen as an additional task)
- **Teacher training:** Many teachers do not have the confidence/support they need to implement inquiry-based learning, especially outdoors
- **Insufficient funding**

School District Identified Needs



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Adaptations:

How should we adapt?



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



- Reduce the number of Management Approaches and Actions
- Better engage State Superintendent of Education to encourage the development of state policy drivers
- Work with states and school districts to integrate MWEEs into curriculum to reduce perceived burden
- Train “Ambassadors” using the new MWEE Guide to support the development of more and better MWEEs; Create online training and maintain resources on Bay Backpack
- Pursue private and innovative funding

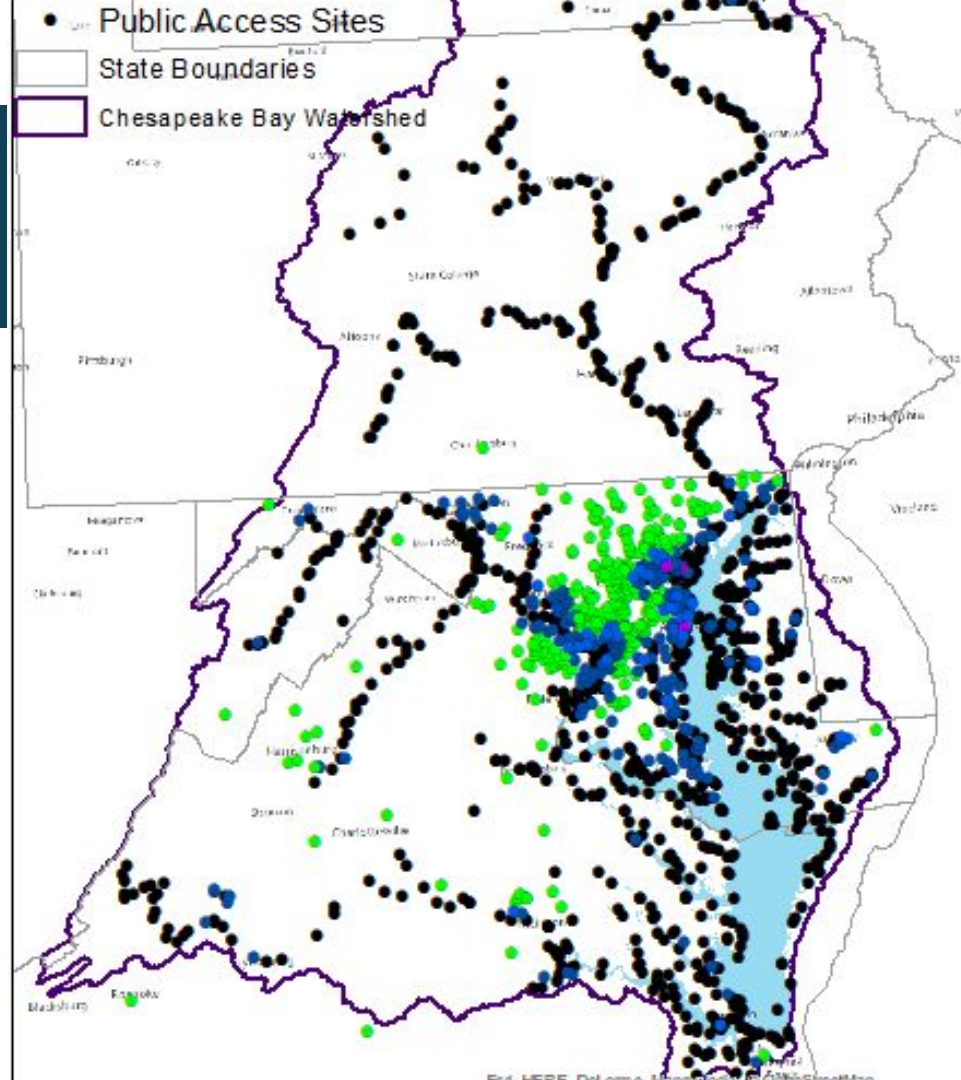


Cross-Outcome Considerations

Graphic shows how far schools are from public access sites

Only 7 schools are walkable to public access site!

Are there areas near schools that we could target for public access to allow for more MWEES ?





What We Want



Ensure appropriate and sufficient staff at state agencies to meaningfully advance student MWEEs

- **Virginia:** 2 Dept of Education positions in budget language; Fill gap left by Ofc of EE
- **Pennsylvania:** Dept of Education position lapsed 2012; multi-agency FTE hire anticipated 2018
- **Delaware:** Limited engagement from Dept of Education; opportunity to connect with Next Generation Science Standards
- **Maryland:** Dept of Education staffed by contract position

Discussion