



Environmental Literacy in the Chesapeake Bay Region

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Presentation by:

The Chesapeake Bay Program
Education Workgroup to
The Chesapeake Bay Commission

May 3, 2024

WHY IS THIS **IMPORTANT?**

- **Builds Lifelong Habits:** Instills sustainable habits, behaviors, and values in students.
- **Reinforces Critical Thinking Skills:** Encourages students to analyze complex issues, evaluate evidence, and consider multiple perspectives, empowering informed decision making and constructive dialogue.
- **Empowers Future Leaders:** Cultivates a new generation of environmentally active leaders, workers, and community members capable of driving positive change and shaping a more sustainable future.



What is a
MWEE?





A MWEE

INCREASES
ENGAGEMENT
AND ENTHUSIASM
FOR LEARNING



CHESAPEAKE
WATERSHED
AGREEMENT

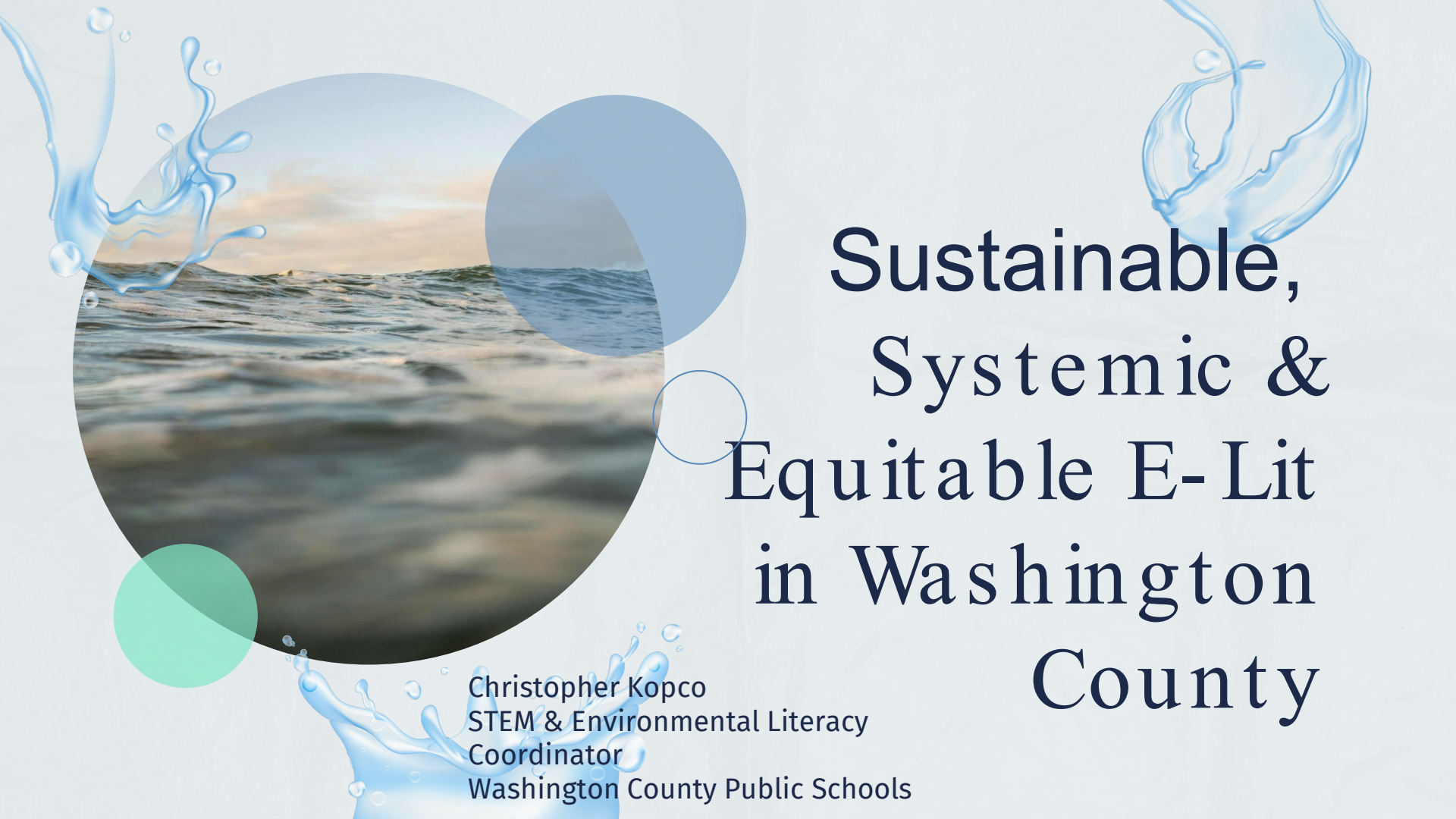


ENVIRONMENTAL LITERACY GOAL

- GOAL: Enable students in the region to graduate with the knowledge and skills to act responsibly to protect and restore their local watershed
- OUTCOMES:
 - Hands-on Student Experiences (MWEEs)
 - Sustainable Schools
 - Supportive Policies & Metrics

ENVIRONMENTAL
LITERACY
MODEL ELM

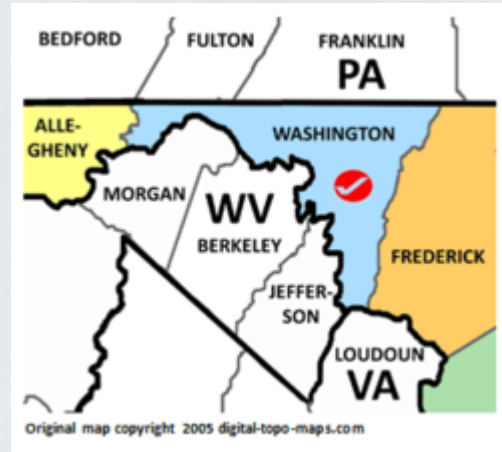


The background features several water splashes in shades of blue and green. A large circular frame on the left contains a photograph of a sunset over the ocean. Overlapping this frame are several semi-transparent circles in light blue and green. The main title is positioned on the right side of the slide.

Sustainable, Systemic & Equitable E-Lit in Washington County

Christopher Kopco
STEM & Environmental Literacy
Coordinator
Washington County Public Schools

WASHINGTON COUNTY



POPULATION

155,590 (2022)

FOUNDED

1776

COUNTY
SEAT

Hagerstown

Unemployment Rate

3.1%

Washington County Schools at a Glance

Enrollment

22,297

Graduation Rate

90.75%

Demographics

58% White

15% African American

15% Hispanic

9% Two or more races

3% Other

Free And Reduced Meals
(FARMS)

60%

Students With
Disabilities

11.4%

Multilingual Learners

5%

Recent Commitment to E-Lit

2020 a turning point

01



A District Level
Investment
Dedicated Staff



Meeting the needs of our students

Washington County Public Schools: 2022 ELIT Summary

ELIT Response Submitted by: STEM Supervisor/Coordinator

Preparedness to Implement Environmental Education

Preparedness Level: Well Prepared (9-12)

Implementation of specific elements:

Established program leader for EE	Fully in place	Support system for high quality PD for EE	Fully in place
Integrating environmental concepts in curriculum	Partially in place	Plan for MWEEs at all grade bands	Fully in place
Regular communication among staff about EE	Fully in place	Established partnerships for EE delivery	Fully in place

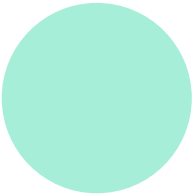
Building E-Lit into the curriculum

MWEEs, E-Lit Standards, and multidisciplinary collaboration

02



FINAL Objective Statements Covered by Grade 3 & 5

E-Lit Standard	Grade 3	Grade 4
<p>(1) Environmental Issue Investigation & Action. Environmentally literate students investigate environmental issues in order to develop and implement local actions that protect, sustain or restore the natural environment.</p> <p>SS - 1.A - 1.D Fully Covered Gr 3-5</p> <p>FULLY COVERED</p>  <div data-bbox="608 551 1116 720" style="background-color: #e0f2f7; padding: 10px; text-align: center;"> <p>Evaluating the present</p> </div>	<p>SS/ELA (Units)</p> <p>2.A 2.B 5.B</p> <p>Science</p> <p>1.A 1.B</p>	<p>MWEE</p> <p>1.A 1.B 1.C 1.D</p> <p>SS/ELA (Units)</p> <p>1.A 1.B 1.C</p>
<p>(2) Human Dependence on Earth Systems and Natural Resources. Environmentally literate students construct and apply understanding of how Earth's systems and natural resources support human existence.</p> <p>SS - 2.A - 2.D Fully Covered Gr 3-5</p>	<p>SS/ELA (Units)</p> <p>2.A 2.B 5.B</p>	<p>SS/ELA (Units)</p> <p>1.A 1.B 1.C</p>

Issue Identification



Outdoor Field Experiences



Meaningful Watershed Educational Experiences (MWEE)

Synthesis & Conclusions



Action Projects



MWEE in Every Grade Band

Pre K- 2
(Grade 2)
Earth's
surface /
pollution



Grades 3-5
(Grade 4)
Pollinators



Middle School - Grade 6 - Organisms, Populations & Ecosystems / Mussels
Grade 7 - Reducing Carbon Footprints
Grade 8 - Chemical Reactions & Water Quality

High School
(Biology)
Ecosystem Health

Implementation

Professional Development, Student Experiences,
MWEE Mentors, and funding

03

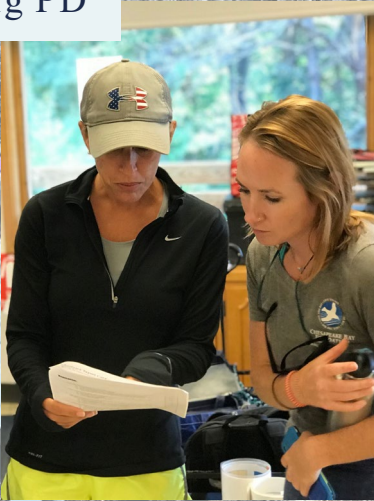


Professional Development

Summer PD



Evening PD



MWEE Mentors /
Fairview Staff

MWEE Linkers

Student Experiences

Local
Schoolyard /
Community



Fairview
Outdoor
School



Community Connections

Partnerships, Funding, and Preparing Students
for the Future

04



Funding

Building a
COMMUNITY
that inspires curiosity, creativity &
ACHIEVEMENT.
WASHINGTON COUNTY PUBLIC SCHOOLS



Community Partnerships



Washington County

M A R Y L A N D



MAEOE

Maryland Association for Environmental
& Outdoor Education

Wash Co.
Government
Watershed
Specialist

Preparing Students for the Future

Career Opportunities



CTE
Apprenticeship
Program



Career Event with
MAEOE

Internship
Opportunity
Database

1. STATUS



Chesapeake Bay Watershed
The land whose water and sediments eventually drain into a particular river or other body of water.
The Bay watershed is 64,000 square miles of tidal shoreline, through and islands. The Bay is part of six states: New York, Pennsylvania, Maryland, Delaware, Virginia, as well as Washington, D.C. About 17 million people live in the Bay watershed, and about 10 million live near them.

NOTABLE ACCOMPLISHMENTS

- Established & supported state networks
- Produced MWEE Guidance Documents
- State Accomplishments
 - Maryland
 - New Governor Moore Executive Order
 - Environmental Literacy Framework
 - Virginia
 - EE Coordinator Positions @ DCR
 - EL Strategic Plan
 - Pennsylvania
 - STEELS Standards of Learning
 - IU Coordination

STATE LEVEL CONDITIONS FOR SUCCESS

- Environmental Literacy Plan/Framework & Standards of Learning
- State Network(s)
- Dedicated staff at Department of Education & Natural Resource Agencies
- Adequate response to ELIT survey
- Funding to support implementation

STATE LEVEL CONDITIONS FOR **SUCCESS**

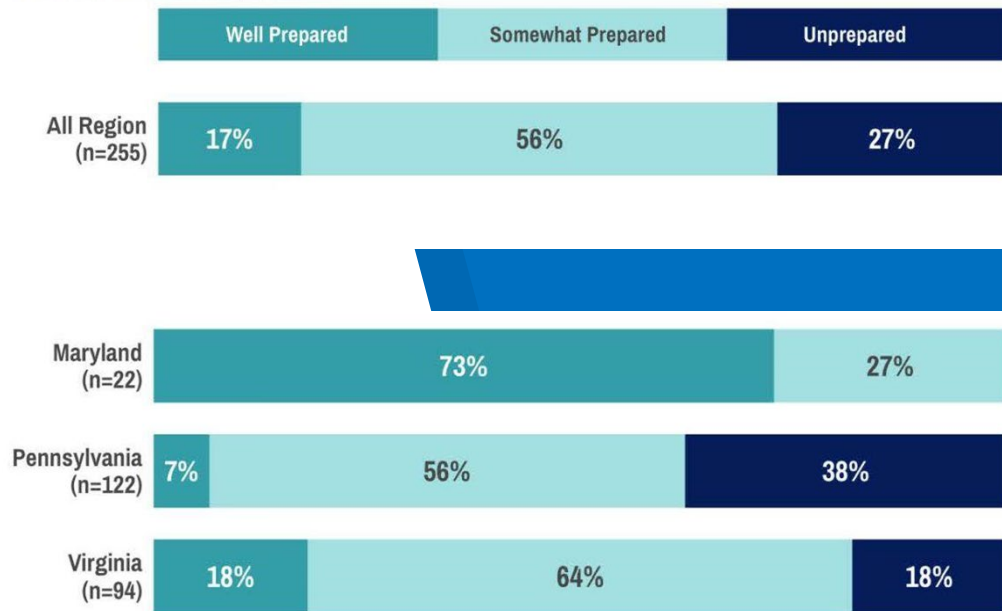
	EL Plan/ Framework	Standards of Learning	State Network(s)	Dedicated Staff (DOE)	Dedicated Staff (NR)	Progress Measures (ELIT)	State/ District \$\$
MD	Green	Green	Green	Green	Green	Green	Yellow
PA	Yellow	Green	Green	Green	Green	Yellow	Yellow
VA	Green	Yellow	Green/Yellow	Yellow	Green	Green	Yellow

IMPACTS of COVID ON EDUCATION

- ▶ COVID-19 impacts are long-lasting and multi-dimensional
 - ▶ Teacher and administrator turnover is huge
 - ▶ School leadership attention is focused on impacts of COVID (learning loss, behavior issues, mental health, etc)
 - ▶ Time and resources for science and social studies reduced, focus on math and english language arts

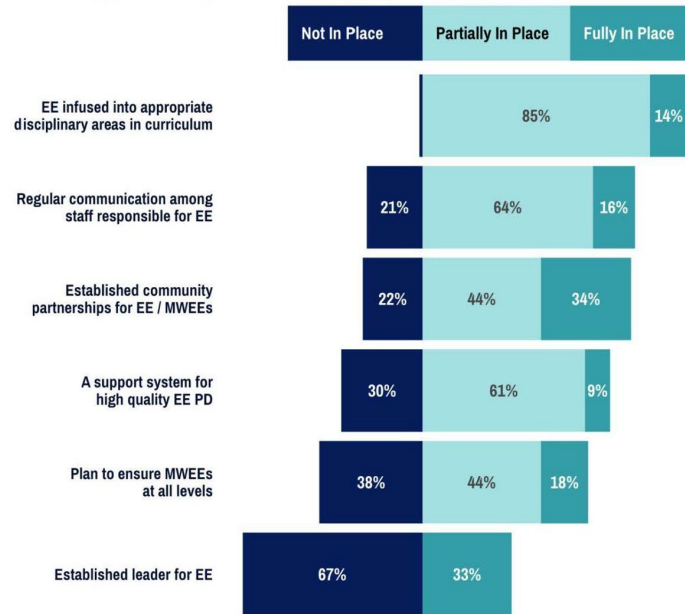
Self-Reported Levels of Preparedness to Implement Environmental Education

Levels of preparedness is based on a total preparedness score, which derives from answers to six elements of preparedness for EE evaluated by the ELIT.



Degree of Readiness for Each Element of LEA Planning and Infrastructure.

Distribution of ratings to individual items in the planning indicator by all LEAs in Region (n=256)



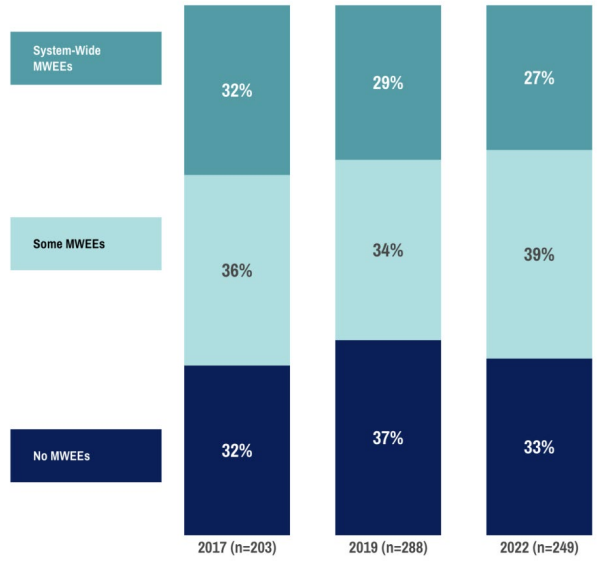
District Preparedness

Elementary Grades: MWEE Availability among LEAs within the Region

Rates of availability by state in 2022. If a district reported there was a system-wide MWEE at any grade level(s) in K-5, they were scored as having "System-Wide MWEEs"; "No MWEEs" indicates no MWEEs at any grade in the band.



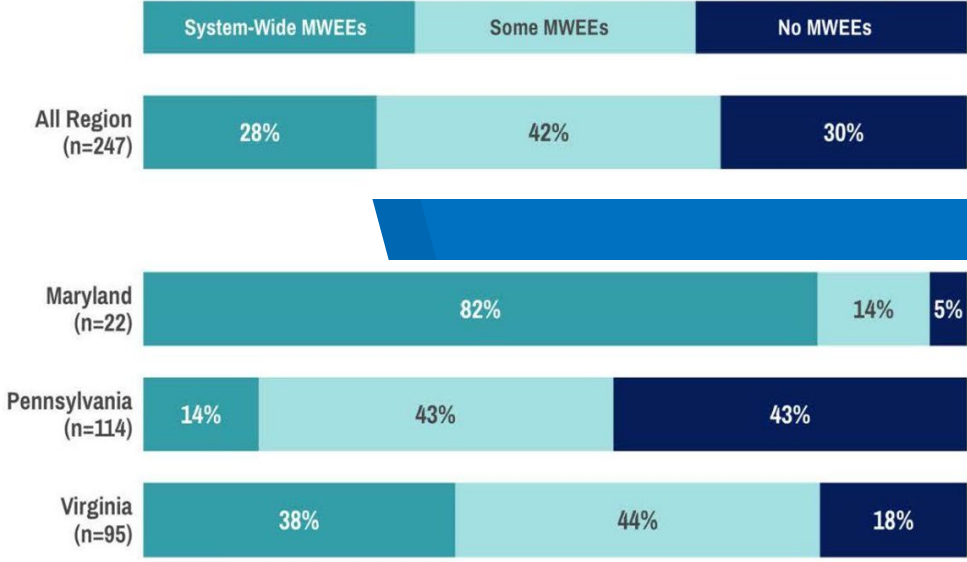
Changes in MWEE Availability in the Region: Elementary Grades (2017-2022)



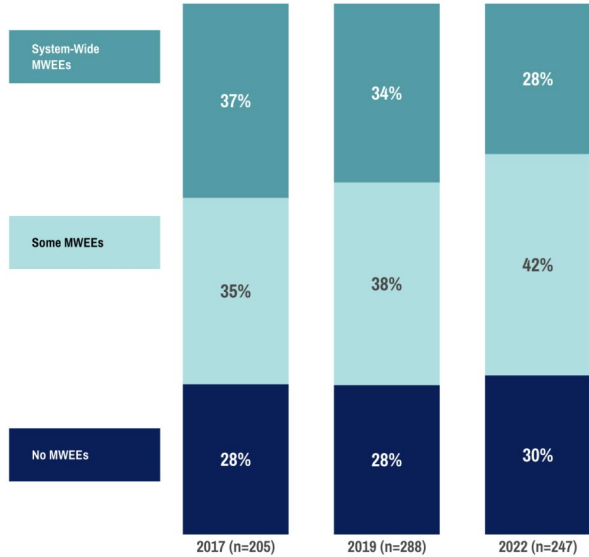
Elementary

Middle School Grades: MWEE Availability among LEAs within the Region

Rates of availability by state in 2022. If a district reported there was a system-wide MWEE at any grade level(s) in 6-8, they were scored as having "System-Wide MWEEs"; "No MWEEs" indicates no MWEEs at any grade in the band.



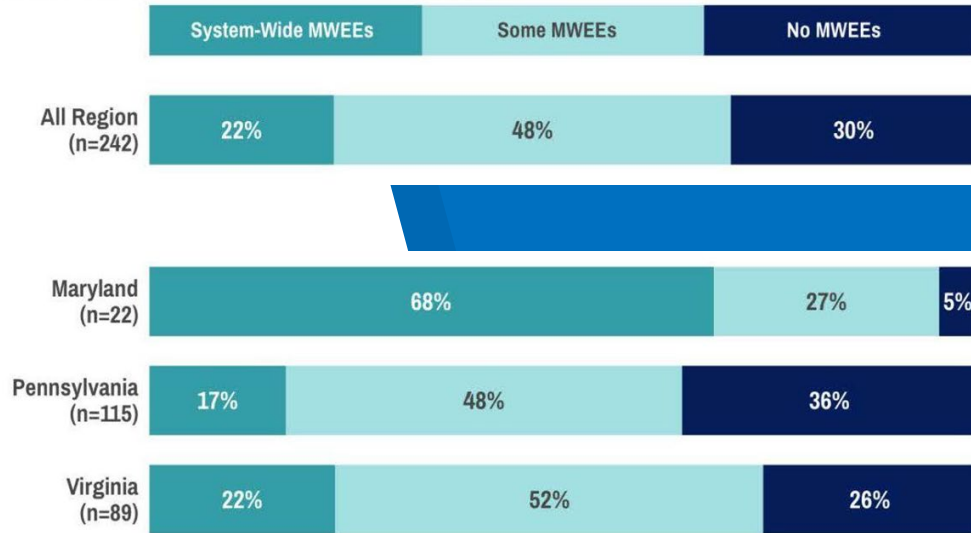
Changes in MWEE Availability in the Region: Middle School Grades (2017-2022)



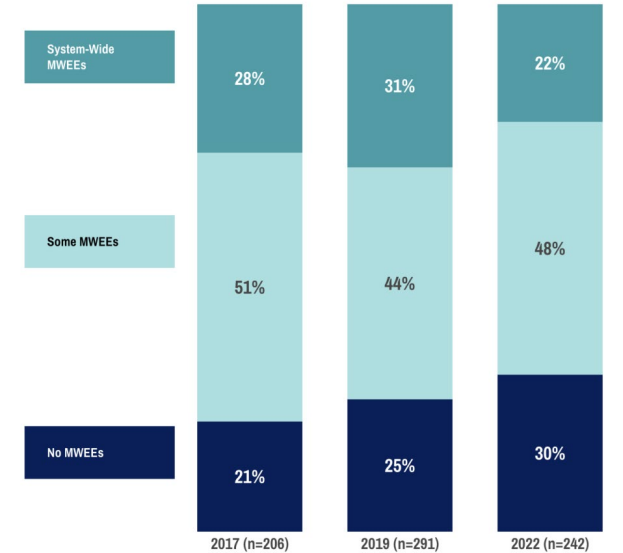
Middle

High School Grades: MWEE Availability among LEAs within the Region

Rates of availability by state in 2022. If a district reported there was a system-wide MWEE in any course they also flagged as a graduation requirement they were scored as having "System-Wide MWEEs"; "No MWEEs" indicates no MWEEs in any courses that the LEA indicated were requirements.



Changes in MWEE Availability in the Region: High School Grades (2017-2022)



High

Greatest Needs for Support: State-by-State

The seven highest-rated need statements within each jurisdiction

Maryland (n=22)	Median rating
Funding for transportation	7
Funding for PD	6
PD to facilitate student action	5.5
Funding for programs / supplies	5
Curriculum / standards alignment	5
PD for student investigations	5
PD to use outdoor learning spaces	5

Virginia (n=92)	Median rating
PD to facilitate outdoor field exp.	6
Funding for programs / supplies	6
PD for student investigations	6
PD to facilitate student action	6
PD to use outdoor learning spaces	6
Funding for PD	5.5
Curriculum / standards alignment	5

Pennsylvania (n=113)	Median rating
Funding for programs / supplies	6
PD to facilitate student action	6
PD to facilitate outdoor field exp.	6
Funding for PD	6
Funding for transportation	6
PD for student investigations	5
Curriculum / standards alignment	5

2.

RECOMMENDATIONS



RECOMMENDATIONS - MD

- Identify funding for transportation, program supplies, and professional development as highlighted in ELIT survey results
- Continue support for Maryland Green Schools
- Support a full-time network coordinator for the MD Environmental Literacy Advisory Network

RECOMMENDATIONS - PA

- Identify funding to support Intermediate Unit and District implementation of MWEEs as defined in STEELS
- Support a full-time network coordinator for the PA Environmental Literacy Network
- Provide professional development to support MWEE elements as identified in ELIT survey

RECOMMENDATIONS - VA

- Identify funding for environmental literacy programming, including MWEEs
- Establish mechanism to ensure state agency collaboration in support of the EL goal of the Chesapeake Bay Watershed Agreement
- Provide professional development to support MWEE elements as identified in ELIT survey
- Support a full-time network coordinator for the Virginia Environmental Literacy Network



QUESTIONS?