

Planning Management Strategy

Introduction

The future well-being of North America's largest and most productive estuary, the Chesapeake Bay and its 64,000 square miles of watershed, will soon rest in the hands of its youth. We have a duty to impart to these young people—almost three million strong in kindergarten through 12th grade—a sense of individual responsibility and the skills to become stewards of the natural world.

It has been 20 years since the Chesapeake Executive Council adopted Directive 98-1 formally recognizing the importance of education to the partnership. The 2014 Chesapeake Bay Watershed Agreement elevated the significance of environmental literacy, acknowledging that a committed youth will help to determine the ultimate success of our protection and restoration efforts.

States, local school districts, and partners have made tremendous progress in recent years in establishing curriculum, policies, and model programs that advance environmental literacy. Our focus must now expand to direct and support the systemic implementation of environmental literacy teaching throughout the 405 school districts in the Chesapeake Bay watershed. We must support school districts in their efforts to provide students with Meaningful Watershed Educational Experiences, create sustainable schools, and embed environmental literacy curriculum and operating practices into their programs to ensure that every student has equitable access to this powerful approach to teaching and learning.

Because State Departments of Education set expectations, encourage innovation, and oversee accountability for school districts and schools, their leadership is essential for creating this broad vision and we welcome their leaders as engaged participants in the Chesapeake Bay Program partnership.

Goal, Outcome and Baseline

This management strategy identifies approaches for achieving the following goal and outcome:

Environmental Literacy Goal

Enable every student in the region to graduate with the knowledge and skills to act responsibly to protect and restore their local watershed.

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.

Baseline and Current Condition

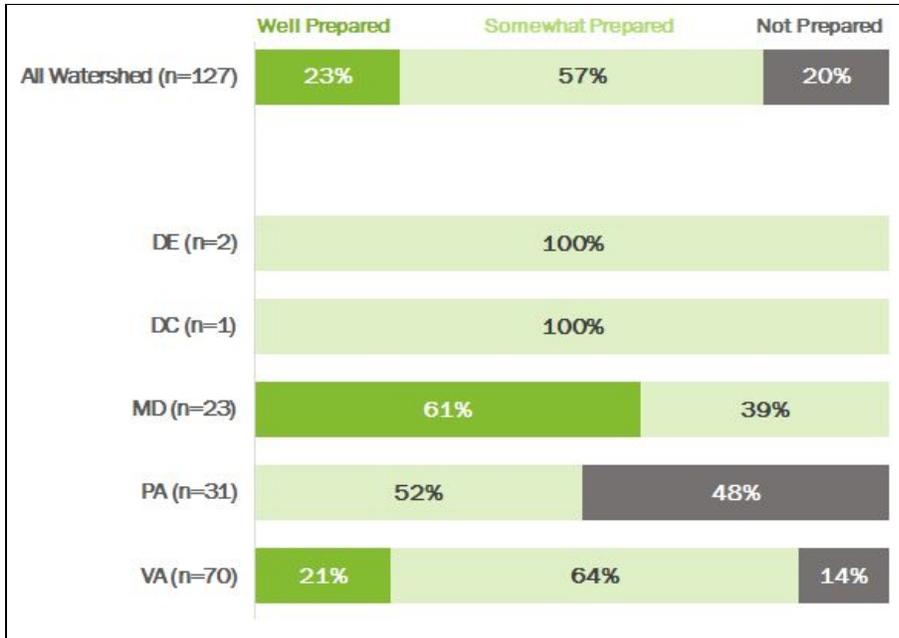
The Chesapeake Bay Watershed Environmental Literacy Indicator Tool (ELIT) was developed to monitor the capacity and progress of public school districts toward meeting the environmental literacy goal stated in the 2014 Chesapeake Bay Watershed Agreement. To assess each school district's current capacity to implement a comprehensive and systemic approach to environmental education, respondents considered the following six elements and indicated for each whether it was: Not in place, Partially in place, or Fully in place.

- An established program leader for environmental education (providing effective, sustained, and system leadership)
- An integrated program infusing environmental concepts into appropriate curricular areas
- Regular communication among staff responsible for environmental education curriculum and program implementation.
- A support system in place that enables teachers and administrators to engage in high quality professional development in content knowledge, instructional materials, and methodology related to environmental education.
- A plan to ensure opportunities for all students to engage in MWEEs at the elementary, middle and high school levels.
- Established community partnerships for delivery of environmental education, including implementation of MWEEs

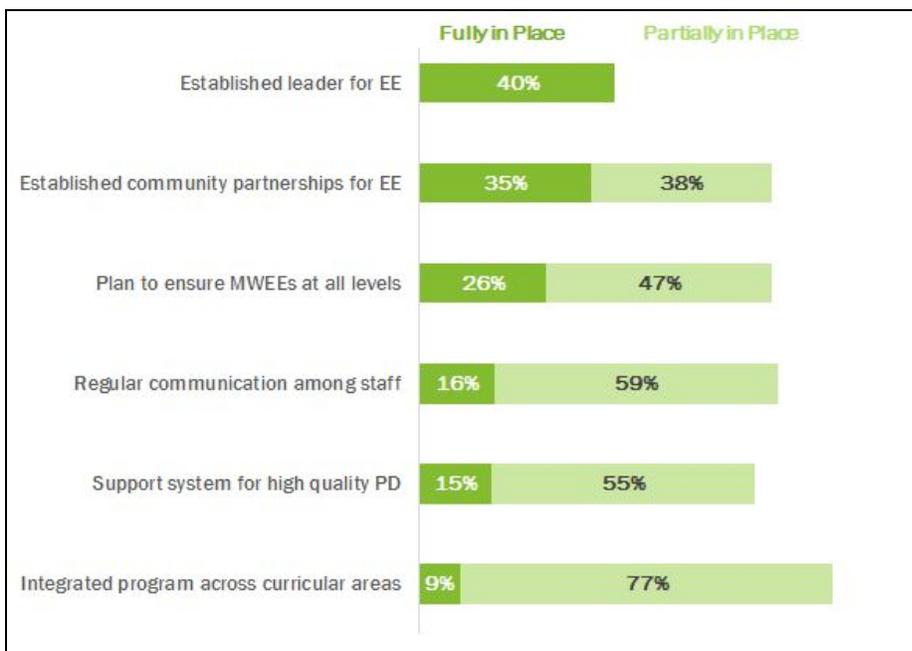
Responding LEAs rated how fully their district has implemented six indicators of planning and infrastructure for high quality environmental education. Total preparedness scores were grouped into three levels of preparedness:

- Well Prepared: scores from 9-12
- Somewhat Prepared: scores from 4-8
- Not Prepared: scores from 0-3

The results show that the majority of responding LEAs in the watershed are “somewhat prepared” to implement high quality environmental education. Preparedness varied between the states. Nearly all of the well prepared districts were in Maryland, with others coming from Virginia. Pennsylvania had the highest rate of responding districts that were unprepared (low response rates in PA and DE limits generalizability of these data).



The most common planning and infrastructure elements fully in place within LEAs are having established district leader and community partnerships for EE delivery. These data suggest that one of the most challenging preparedness elements to fully implement is an integrated program that infuses environmental topics across the curriculum. However, it is the element that received the strongest reports of districts at least making efforts in this direction, even if they have not yet been able to fully implement.



Participating Partners

The following partners have participated in the development of this strategy. A workplan to accompany this management strategy will be completed six months after this document is finalized. It will identify specific partner commitments for implementing the strategy.

Chesapeake Bay Watershed Agreement Signatories

- State of Delaware
- District of Columbia
- State of Maryland
- Commonwealth of Pennsylvania
- Commonwealth of Virginia
- Chesapeake Bay Commission
- U.S. Environmental Protection Agency

Other Key Participants

- National Oceanic and Atmospheric Administration (NOAA)
- U.S. Fish and Wildlife Service (USFWS)
- U.S Geological Survey (USGS)
- National Park Service (NPS)
- U.S. Forest Service (USFS)
- Nongovernmental Organizations (e.g. Chesapeake Bay Foundation, National Wildlife Federation, NAAEE state affiliates, and many local and regional organization)

Local Engagement

While states have the primary responsibility to advance the Chesapeake Bay Program's environmental literacy efforts, this work is done in partnership with school districts. In most watershed jurisdictions, school districts are responsible for defining their own curriculums and implementation strategies to support state standards and priorities.

Factors Influencing Success

The following are natural and human factors that influence the Chesapeake Bay Program's ability to attain this outcome:

- **State Education Agency Leadership and Staffing for Environmental Literacy:** There is a need for a high level support for environmental literacy that flows from administrations or legislatures and is communicated to school systems so there can be a shared vision among stakeholders and state leadership. Organized support from stakeholders for such positions is also important in advancing any state policy initiatives.
- **Local Education Agency Implementation of Environmental Literacy Programs:** Education in most of the states in the Chesapeake Bay watershed are controlled by local education agencies (600+ in the region), each with their own leadership and management structure. With the exception of state laws and regulations, education priorities are largely determined at the local level and may not mirror state priorities. MWEEs and

sustainable school practices are often left out of established accountability mechanisms between state and local education agencies.

- Funding: A major limiting factor is funding, including support for sustainable school initiatives, student projects, teacher professional development, and transportation.
- State agency and partner coordination: High quality environmental literacy programming requires the support of many state and local partners who often are the educators conducting teacher professional development and supporting student programming.
- School community (teachers, principals, staff) awareness and readiness: Ultimately the success of these efforts depends on the ability of educators to understand the essential elements and be comfortable delivering them and the permission and support of principals and the school community.

Current Efforts and Gaps

- Convening state leaders to focus on formal education on an ad hoc basis; Workgroup would like this to become a focus for the Principals Staffing Committee
- Encouraging adequate staffing to drive MWEE implementation
- Collecting data using the ELIT survey to better understand school district needs
- Identifying existing state funding that could advance MWEE implementation
- Maintaining interagency state workgroups;
- Working with states towards cross-agency “Collective Impact” efforts that include appropriate leadership and organization, metrics, and support
- Developing, improving, and expanding partnerships as well as opportunities for professional development to increase MWEE implementation across jurisdictions

Management Approaches

The Chesapeake Bay Program will work together to carry out the following actions and strategies to achieve the Environmental Literacy Goal and Outcomes. These approaches seek to address the factors affecting our ability to meet the goal and the gaps identified above. Work will be coordinated through the Education Workgroup of the Chesapeake Bay Program, which provides a forum for cross- jurisdictional coordination and support on all aspects of environmental education. These groups will work towards shared priorities as follows:

Management Approach 1: Support school district efforts to embed locally appropriate environmental practices, content, and learning opportunities into curriculum and operations.

Management Approach 2: Use available data and information to strategically and equitably focus resources to support school district level environmental literacy planning and implementation

Management Approach 3: Ensure broad understanding at the state and regional level of the progress, gaps, and opportunities related to the Environmental Literacy Goal.

Cross Outcome Collaboration and Multiple Benefits

Future work for this management strategy will include coordination with all related goals and outcomes, including Water Quality, Public Access, Citizen Stewardship, and the Employment and Professional Engagement Workgroup under the Diversity Action Team. The resulting work will be captured in action plans.

Monitoring Progress

The Chesapeake Bay Program maintains a Environmental Literacy Planning indicator that tracks school district preparedness to support environmental literacy activities for their students. It is based on the Chesapeake Bay Watershed ELIT survey, which was developed to monitor the capacity and progress of public school districts toward meeting the environmental literacy goal stated in the 2014 Chesapeake Bay Watershed Agreement. ELIT is administered biennially to all school districts in six jurisdictions: the District of Columbia, Delaware, Maryland, Pennsylvania, Virginia, and West Virginia. The survey was administered in 2015 and again in 2017. The Chesapeake Bay Program manages data collection for the survey and collates and reports data at the watershed and state levels. While the survey is voluntary, the 2017 ELIT data collected data from 39% of school districts (DC-100%, MD-96%, VA-74%, DE-25%, PA-16%, WV-0%) representing 76% of all students in the watershed portions of these jurisdictions.

In addition, the state of Maryland requires school districts to report every 5 years on how they are meeting the state-mandated requirements related to a environmental literacy graduation requirement and integrated program. In 2015, the Bay Program worked with the Maryland State Department of Education to use ELIT to collect this information to increase efficiency of the related data collection efforts. This partnership should continue in the future.

Assessing Progress

There are no numeric goals in place for this indicator, but the Workgroup anticipates that the number of well prepared will continue to increase and that we will see a trend of districts moving from not prepared to somewhat well prepared to fully prepared school districts.

Adaptively Managing

The Leadership Team of the Education Workgroup, which is chaired by the National Oceanic and Atmospheric Administration (NOAA) and the Chesapeake Bay Foundation and includes federal representatives from the U.S. Forest Service and the Environmental Protection Agency along with two representatives per state (generally from the state departments of education and lead natural resource agencies) and key partner organizations, convenes monthly to discuss priorities and progress towards meeting the Environmental Literacy Goals and Outcomes. The full Education Workgroup, which includes broader representation from federal agencies, state agencies, nonprofits, local education agencies, and others, meets several times a year. The group also convenes an Environmental Literacy Forum every two years around specific issues or priorities, which include outside experts and constituents. These convenings serve as good

opportunities to re-assess where the group is in achieving the outcomes of the agreement and adjusting strategies as appropriate.

In addition, the Principals Staffing Committee of the Chesapeake Bay Program plans to convene high-level leaders from throughout the Bay Partnership to discuss progress towards meeting the Environmental Literacy goal and outcomes. These meetings will include State Superintendents of Education as well as leaders from state natural resource agencies, U.S. Department of Education, NOAA, U.S. EPA, national and regional nonprofit organizations, institutions of higher education, local education agencies, Chesapeake Bay Commission, and the Chesapeake Bay Program Education Workgroup. The Management Board will be responsible for tracking the agreements and commitments generated by these meetings.

Biennial Workplan

A 2018-2019 biennial workplan is available that outlines work towards this outcome. Where appropriate, State-specific commitments are listed as performance targets.