Education Workgroup Presentation to STAC

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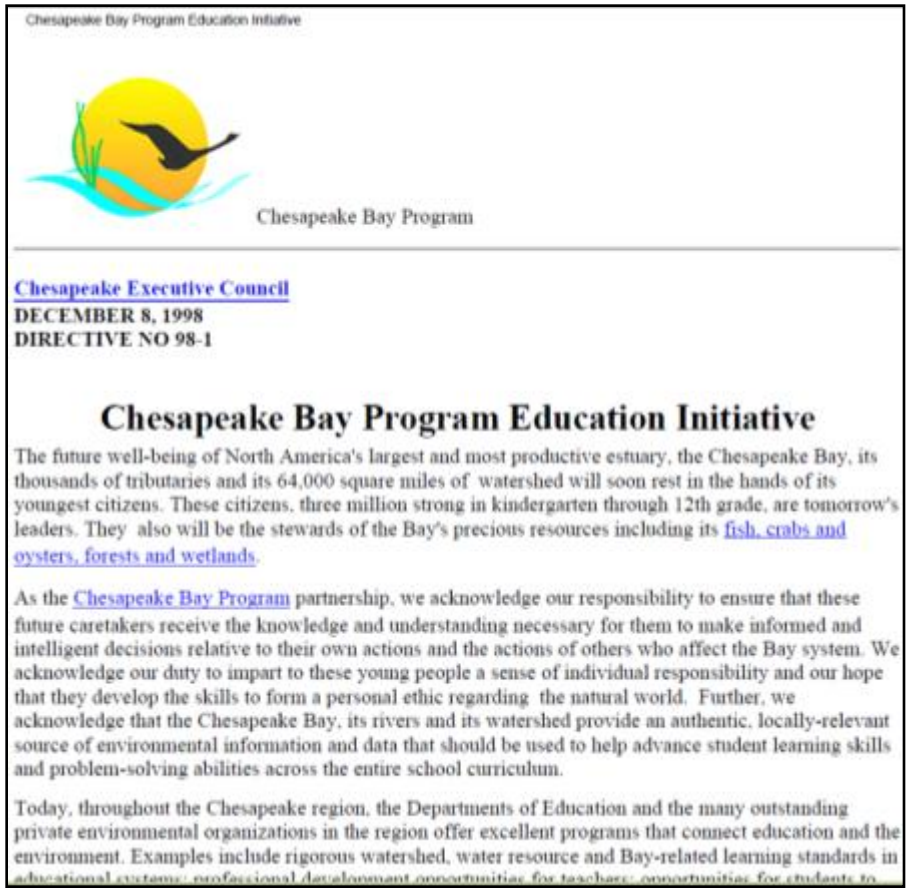
CBP Education Workgroup

September 18, 2013

Review: Workshop Justification

1998 Education Directive



Chesapeake Bay Program Education Initiative

Chesapeake Bay Program

Chesapeake Executive Council
DECEMBER 8, 1998
DIRECTIVE NO 98-1

Chesapeake Bay Program Education Initiative

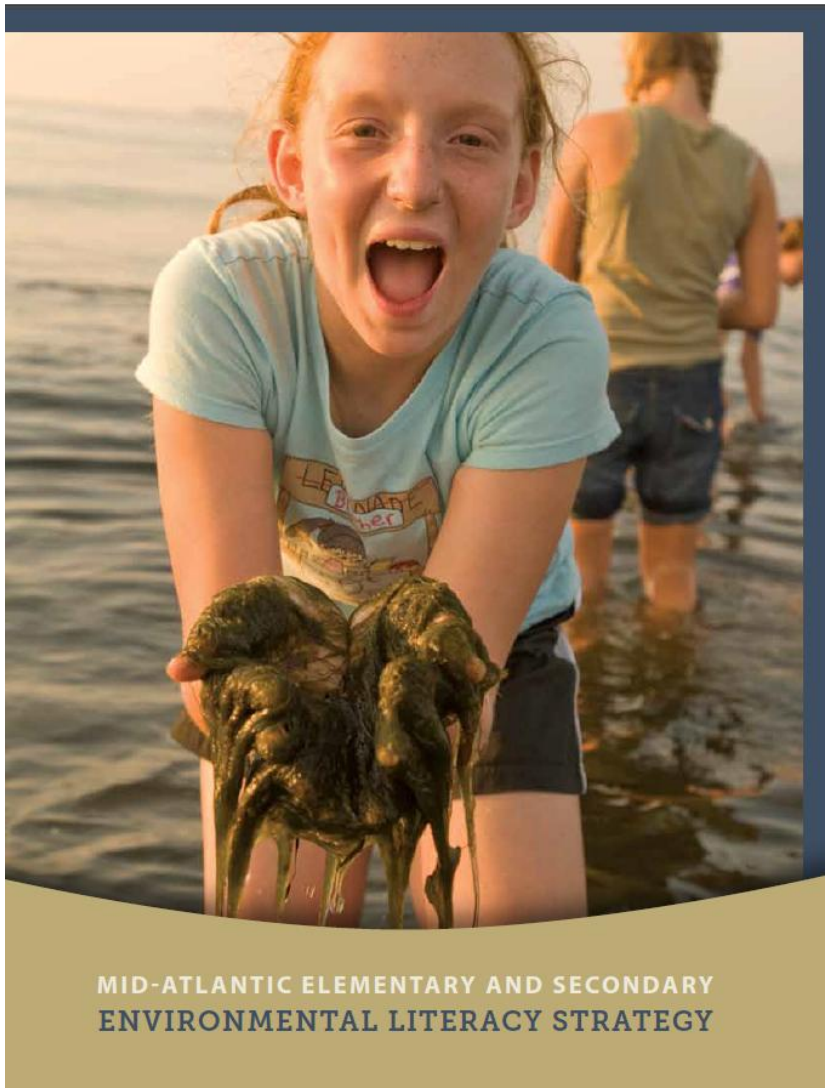
The future well-being of North America's largest and most productive estuary, the Chesapeake Bay, its thousands of tributaries and its 64,000 square miles of watershed will soon rest in the hands of its youngest citizens. These citizens, three million strong in kindergarten through 12th grade, are tomorrow's leaders. They also will be the stewards of the Bay's precious resources including its fish, crabs and oysters, forests and wetlands.

As the Chesapeake Bay Program partnership, we acknowledge our responsibility to ensure that these future caretakers receive the knowledge and understanding necessary for them to make informed and intelligent decisions relative to their own actions and the actions of others who affect the Bay system. We acknowledge our duty to impart to these young people a sense of individual responsibility and our hope that they develop the skills to form a personal ethic regarding the natural world. Further, we acknowledge that the Chesapeake Bay, its rivers and its watershed provide an authentic, locally-relevant source of environmental information and data that should be used to help advance student learning skills and problem-solving abilities across the entire school curriculum.

Today, throughout the Chesapeake region, the Departments of Education and the many outstanding private environmental organizations in the region offer excellent programs that connect education and the environment. Examples include rigorous watershed, water resource and Bay-related learning standards in

- CBP has included K-12 watershed education as a goal for many years
- Tracking the implementation of watershed education is incomplete
- Goals of the Mid Atlantic Environmental Lit Strategy include additional education outcomes for teachers and students

Addressing Environmental Literacy Strategy Outcomes



Outcome 4.2: Education programs are developed and refined using the best available research on the effectiveness of environmental education, and support continued research in this field.

Strategy 5: Work with states to develop metrics to assess progress toward student environmental literacy

Workshop Goals

- Identify best practices of education programs and practices that lead to increased environmental literacy in K-12 students
- Examine the definition of the Meaningful Watershed Educational Experience to ensure its core elements remain relevant
- Discuss indicators and metrics that will assess progress toward increasing student stewardship.

Workshop Overview

Workshop Schedule

Research-Based Best Practices for Environmental Education
O'CALLAGHANS HOTEL-ANNAPOLIS, MARYLAND
Galway Room A, 4th Floor
Webinar Available (see information below)

Monday, August 27

8:30-9:00am REGISTRATION AND COFFEE

9:00-10:00 WELCOME AND INTRODUCTION
Welcome by **Nicholas DiPasquale**, *Director*, U.S. EPA Chesapeake Bay Program
Shannon Sprague, *Chair*, Mid Atlantic Education Workgroup (NOAA)
Jamie Baxter, *Program Director*, Chesapeake Bay Trust

10:00-10:30 THE FRAMEWORK: The NAAEE Guidelines for Excellence in Environmental Education
Dr. Bora Simmons, *Senior Research Associate*, National Project for Excellence in Environmental Education

10:30-NOON WHAT WE KNOW: Environmental Education and the MWEE
Dr. Marc Stern, *Associate Professor*, Virginia Tech University
Dr. Michaela Zint, *Associate Professor of Environmental Education and Communication*, University of Michigan

NOON-12:15
Urban Environmental Education: The North Bay Example
Dr. Marc Stern, *Associate Professor*, Virginia Tech University

12:15-1:00 LUNCH

DIGGING A LITTLE DEEPER:
The afternoon will explore two major components of the MWEE, inquiry and place-based education.

1:00-2:30 INQUIRY BASED LEARNING: Leveraging student's natural curiosity to learn about their environment
Dr. Trudi Volk, *Emeritus Professor*, Southern Illinois University
Dr. William McBeth, *Professor of Education*, University of Wisconsin-Platteville

2:30-2:45 BREAK

2:45-4:45 KEEPING IT REAL: Using schools and communities as a context for environmental education
Dr. Rachel Becker-Klein, *Senior Associate*, Program Evaluation and Educational Research (PEER) Associates
Robert Hoppin, *Place-Based Education Consultant*, Boston Public Schools
Julian Dautremont-Smith, *Chief Sustainability Officer*, Alfred State College

4:45-5:15 GROUP REPORTS

5:30-7:30pm SOCIAL HOUR
Metropolitan Rooftop

August 27-28, 2012 • Annapolis, Maryland

<u>Day 1</u>
EE Researchers summarized findings

"Listening" groups discussed research and how it could be applied to students, teachers, and sustainable school programs

<u>Day 2</u>
Practices were categorized as "essential" and "recommended"

Targeted conversation on how measure and track environmental literacy

Key Outcomes of Workshop

- Reaffirmation of underlying tenants of “MWEE” student experience
- Recommendation to track Environmental Literacy by measuring exposure to best practices
- Recognition of need to coordinate sustainable school programs
- Use of “collective impact” strategy as an organizing framework for environmental literacy

Five Conditions of Collective Impact

Condition		Mid-Atlantic Region
Common Agenda	All participants have a shared vision for change, a common understanding of the problem, and a joint approach to solving it through agreed upon actions	Mid-Atlantic Elementary and Secondary Environmental Literacy Strategy
Shared Measurement	Collecting data and measuring results consistently across all participants ensures efforts remain aligned and participants hold each other accountable	Chesapeake Bay Program indicator/metrics
Mutually Reinforcing Activities	Participant activities must be differentiated while still being coordinated through a mutually reinforcing plan of action	State working groups and state environmental literacy plans
Continuous Communication	Consistent and open communication is needed across the many players to build trust, assure mutual objectives, and appreciate common motivation	Chesapeake Bay Program Education Workgroup
Backbone Support	Creating and managing collective impact requires a separate organization with staff and a specific set of skills to serve as the backbone for the entire initiative and coordinate participating organizations and agencies	Chesapeake Bay Program staff, NOAA, Chesapeake Research Consortium, EPA

Follow up Workshop-November 2012-Sheperdstown, WV

- Reviewed STAC. Workshop Summaries of EE Best Practices
- Established an Environmental Literacy Goal for the Region
- Developed framework for a proposed indicator and tracking system for Environmental Literacy
  - Phase I (high level, “required”) and Phase II (school level verification, voluntary)

SECTION IIA: *Program Capacity*

Please review the following elements and using the scale below, make a determination about your LEAs capacity to address them. For those elements that are "Fully in Place" please provide (by commenting and/or uploading information) supporting evidence/data sources demonstrat that the element is tangible, observable or measurable. *Note: Definition of fully in place to be further developed by workgroup*

Not in Place: There are currently no plans to initiate this element of Environmental Literacy in our LEA.

Planning Stage*:* This element of Environmental Literacy has not been initiated but there is commitment from stakeholder group(s) and planning activities are taking place.

Partially in Place: This element of Environmental Literacy has been partially implemented but is not yet systemic throughout our LEA.

Fully in Place: This element of Environmental Literacy is systemic throughout our LEA.

Our Environmental Literacy Program has…	Not in Place	Planning Stage	Partially in Place	Fully in Place	Evidence for 'Fully in Place Elements[1]
a. *an* **established program leader** *for environmental education (providing effective, sustained and system leadership)*	○	○	○	○	name of leader, job responsibilities, budget line
b. *an* **established environmental education team** *that ensures multi-grade/multi-discipline curricular infusion*	○	○	○	○	team member names, team goals, meeting agendas/minutes
c. *an* **integrated program** *infusing environmental standards within appropriate curricular areas and courses coordinated with other LEA initiatives such as STEM, service learning, and CTE*	○	○	○	○	curriculum mapping, course syllabi
d. *program details about how all students will have repeated opportunities to engage in* **outdoor lessons in meaningful watershed educational experiences** *at the elementary, middle and high school levels*	○	○	○	○	lesson plans, program description
e. **support for educators** *including access to teacher professional development, administrative support, peer learning, and community resources*	○	○	○	○	PD opportunities, PLCs
f. *regulations, policies, or initiatives to ensure maintenance of* **school buildings, grounds and operations as models of sustainability** *for students and the community including the use of school grounds as outdoor learning spaces*	○	○	○	○	copy of LEA policy, vision or mission statement
g. **established community partnerships** *for delivery of environmental literacy programming including implementation of meaningful outdoor educational experience(s)*	○	○	○	○	names of community partners, partnership agreements, program details
h. a **system for monitoring implementation and effectiveness** *of environmental literacy program*	○	○	○	○	accountability work-plan, data tracking worksheets

Next Steps

- November 2013 – State leadership workshop on indicator, metrics and tracking system
- December 2-3, 2013 – Regional Env. Literacy Summit, stakeholder review and input
- January – April, 2014 – revise, pilot tracking tool, revise and finalize
- Fall, 2014 – initial implementation of tracking tool