

**2017 Mid Atlantic Environmental Literacy Forum**

# November 29-30, 2017, National Conservation Training Center

**Purpose:** To establish a cadre of Meaningful Watershed Educational Experience (MWEE) Ambassadors who have the understanding and skills to advocate for and support the development of state and local environmental literacy programming that includes MWEEs.

Agenda and additional meeting resources are available on the [Chesapeake Bay Program Calendar.](https://www.chesapeakebay.net/what/event/education_practitioners_forum)

# Wednesday, November 29th: What exactly is a MWEE and why is it important?

**9:00 Registration and Coffee**

**9:30 Opening Session (Auditorium)**

Welcome and Introductions *(Shannon Sprague, NOAA)*

Chesapeake Bay Program Environmental Literacy Goal *(Kristin Saunders, UMCES)*

Presentations from the Opening Session are available [here](https://www.chesapeakebay.net/?ACT=34&fid=214&d=25330&f=welcome_and_intro_presentation.pdf).

Washington County Public Schools Student Testimonials

* Maria and Caroline from North Hagerstown High School shared their MWEE experiences from their AP Environmental Science classes comparing the eastern shore to western shore. Students used probes to perform water quality and draw conclusions about local water quality, applying their classroom to the real world.
* Questions for Maria and Caroline:
  1. How did Hagerstown students advocate stewardship to address local water quality issues?

Response: Hagerstown students provided an example of planting trees in Annapolis to restore native species.

* 1. Was this done during school hours?

Response: Yes. Students were able to complete projects during class time.

* 1. What is next for you? How does this keep going?

Response: Caroline plans to major in biology and pursue a career in Environmental Science. Maria plans to advocate for clean water, environmental health, and public health.

* 1. What could the school system be doing better to emphasize this work?

Response: Schools need to put their money where their mouths are. E.g. actually   requiring students to use recycling receptacles, continue tree plantings, and have better advocacy on a school and community level to further this work. Schools should be required to teach how knowledge gained in the classroom can be applied to the real world. AP Environmental has been eye opening and every student should be required to take an environmental course to better understand the implications of their actions on the environment.

Timeline *(Tom Ackerman, Chesapeake Bay Foundation)*

* Tom Ackerman, President of Education at CBF, provided an overview of the [timeline](https://prezi.com/bvjywr-s1zo5/chesapeake-bay-program-education-progress-timeline/?utm_campaign=share&utm_medium=copy) to where we have been in Environmental Education, where we are now, and where we are heading in the future.   
  **Next Steps: How can we synergize with one another to achieve full participation at the regional level and give every student the opportunity to promote stewardship and academic achievement.**

# 10:30 BREAK

**11:00 Recognizing the MWEE as a Powerful Educational Tool (Auditorium)**

Session Goal: MWEEs describe a research based approach to teaching and learning. In this session, we will discuss the evidence based ways in which MWEEs support student engagement, academic achievement, 21st century skill development, and environmental stewardship while improving evidence based decision making.

*(Facilitators: Donna Balado/Amy Green/Bart Merrick)*

* Anne Peterson touched on the student engagement piece and how investigations inside and outside the classroom result in higher level learning. This addresses the different elements of the MWEE and how it leads to stewardship and civic responsibility. It is important to recognize misconceptions so that wrong concepts are not passed down to future generations.
* Donna Balado explained how MWEEs lead to student achievement and scholarships. Reports are available online.
* Adam Frederick addressed the 21st Century Skills-Thoughtful Skills ask people to adopt ways of approaching issues/problems that are presented or communicated.  Embracing a thoughtful process includes using skills like Claim / Evidence / Reasoning as an approach and also to grasp an understanding that science is a process and not a linear series of steps as it has been conveyed to many in education. Physical skills are manipulative skills that assist us in design, testing, implementation and decision-making within the scientific process as it applies to an area of study.
* Chris Kemmerer talked about how the MWEE enables PA DEP staff to help kids investigate their questions through hands on learning to bring forward implementation. The power of learning through MWEEs happens in a variety of contexts and thus is always “formal” education regardless to how it is taught from an education standpoint.

# 12:00  LUNCH

**1:00 Understanding the MWEE (Auditorium)**

Session Goal: Forum participants will have a focused conversation about the essential elements and supporting practices of the MWEE, which will help to develop an in-depth and shared understanding of these elements and how they support each other. *(Facilitators: Donna Balado/Amy Green/Bart Merrick)*

* In breakout groups, participants dug deeper into analyzing each of the MWEE Essential Elements.
* Questions addressed Issue Definition, Outdoor Field Experiences, Synthesis and Conclusions, Action Projects, and Barriers and Challenges, and hence how essential it was to have all pieces working together to drive MWEEs.
* Thoughts were captured on [Padlet](https://www.chesapeakebay.net/channel_files/25330/padlet_notes.docx) and [flip charts.](https://www.chesapeakebay.net/channel_files/25330/breakout_flip_chart_notes.pdf)

**Challenges and Barriers to Implementing MWEEs**

* + Resources.
  + Time (especially for teachers).
  + Doable scale.
  + How to have issue definition be student directed?
  + Funding parameters-challenges with number of students in systemic projects.
  + Defining parameters-teachers set overarching questions but students define/refine specifics.
  + Confusion between MWEE and VA Performance Based Assessment-suggested the two are built in together.
  + School Grounds not as exciting.
  + Restoration vs. project enhancement.
  + Systemic restoration project misconceptions.
  + Pre-service Teachers are not trained in teaching outdoors.
  + Teacher turnover.
  + Always go right to science, do not see nearly enough multidisciplinary MWEEs.
  + Some field-based providers have difficulty directly communicating with teachers (have to go through admins) and/or getting permission.
  + Teachers taking on MWEE elements - continually hear from providers that they have worked with teachers for years and yet still there are substantial amounts that don't seem willing to take on the AP element (for example).
  + Some of these issues are politically controversial.
  + Powerful need for PD to build confidence of teachers/facilitators/administrators that can empower students.
  + Difficulty of logistics and systems are needed for support.
  + Fear of change.
  + Teacher training to improve comfort level, with questioning, going outside, etc...
  + Trying to have individual students develop projects can be overwhelming -- allow teachers to try different approaches (sometimes teachers have 150 students).
  + Teachers need models.
  + MWEEs need to be doable for the teacher.
  + Spreading the word to people who aren't familiar.
  + Getting teachers to realize that things they are doing already and close to being MWEEs.
  + How to make them interdisciplinary.

**Key lessons included:**

* + Inclusivity
  + Local relevance of field experiences
  + Student and teacher collaboration to design and implement projects
  + Reflecting and communicating what was learned with each other
  + Time and frequency of projects-connecting action projects to issues
  + What is logistically optimal vs. educationally optical when it comes to conducting outdoor field experiences?

# 5:00 Adjourn

**Thursday, November 30th: How do I design MWEEs and advocate for their use?**

***Note: For day 2, participants will be meeting in two separate break out groups (one in the morning and one in the afternoon). Please check your badge for which break out groups you are assigned to.***

# 8:30 Designing and Implementing a MWEE

Session Goal: This session will focus on familiarizing participants with the tools from the MWEE Guide so they can effectively use the tools and assist others in using them.

Speakers will include Candace Lutzow-Felling from Blandy Farm and Joe Davis from Baltimore County Public Schools who will highlight how they have approached the development and implementation of MWEEs.

**BREAK OUT 2A: Instructional East 105** (*Facilitator: Amy Green)*

**BREAK OUT 2B: Instructional East 111** *(Facilitator: Bart Merrick)*

* These breakouts started by looking at a series of maps to brainstorm where potential field investigations could take place.
* Candace gave a [presentation](https://www.chesapeakebay.net/channel_files/25330/envlitforum-i-ascpresentation-blandyexperimentalfarm-nov2017.pdf) to Bart’s group highlighting Blandy Farm’s experience conducting MWEEs. Joe gave a presentation to Amy’s group highlighting Baltimore County’s experience delivering MWEEs.
* The group ended the session grading the Blandy Farm case study using the MWEE Analysis Tool. The presentation for Designing and Implementing MWEEs can be found [here.](https://www.chesapeakebay.net/channel_files/25330/copy_of_design_and_implement_a_mwee_el_forum.pptx_(1).pdf)

# LUNCH

**1:00 Supporting a MWEE: Role of Ambassadors in Advancing MWEEs State level coordination**

**BREAK OUT 2C: Instructional East 105**

Session Goal: During this session, participants shared strategies for strengthening state-level environmental literacy and MWEE implementation using Collective Impact framework: Common Agenda, Shared Measurement, Mutually Reinforcing Activities, Continuous Communication, and Backbone Support. The group discussed actions participants and the Chesapeake Bay Program can take to assist state efforts-identify whether we had an influential champion, adequate funding, and urgency for change in place for each state. *(Facilitators: Shannon Sprague/Tom Ackerman)*

* The presentation for sharing strategies for state-level environmental literacy and MWEE implementation using Collective Impact Framework can be found [here](https://www.chesapeakebay.net/channel_files/25330/mwee_implementation_at_the_state_level.pdf).

# Systemic Implementation in School Districts BREAK OUT 2D: Instructional East 111

Session Goal: During this session, participants will explore strategies school districts are taking to implement MWEEs. Model programs and best practices will be discussed with an eye towards actions participants can take to advance MWEE implementation and how the Chesapeake Bay Program can prioritize resources to assist district efforts.

*(Facilitators: Kevin Schabow/Tara Baker)*

* The presentation exploring strategies for and elements of district-level environmental literacy and MWEE implementation can be found [here](https://www.chesapeakebay.net/channel_files/25330/mwee_implementation_at_the_school_division_level.pptx.pdf).

# 3:00 Next Steps/Discussion Time

# Participants pledged what they would do over the next 6 months to promote the MWEE.

# 4:00 Adjourn