

**CHESAPEAKE BAY PROGRAM EDUCATION WORKGROUP  
FULL MEMBERSHIP MEETING  
August 1, 2019, 12:30-3:30**

200 Harry S. Truman Parkway (4th Floor), Annapolis MD  
Web Conference: <https://zoom.us/j/933082660>  
720-707-2699 Meeting ID: 933 082 660

**12:30-12:35 Welcome & Introductions**

**12:35-1:45 Strengthening MWEE Implementation**

***Why Action Projects Are Essential and How to Make Sure They Happen:***

*Action projects are an essential culminating piece of the MWEE, but are often not meaningfully connected to the overall MWEE inquiry or are missing altogether. Earth Force (as part of a NOAA B-WET grant) explored why this is the case and developed recommendations that they will share with the Workgroup. (Vince Meldrum/Grace Scarcella via ZOOM)*

- Action projects critical in building young environmental stewards
- Action projects help kids gain important decision making skills
- Orientation challenge and resource challenge are interconnected

***Discussion Questions:***

*How can we as a group overcome the general “orientation challenge” people have to doing action?*

**PHONE BREAKOUT**

- Kacey - to what degree is this a challenge that is addressed in PD?
  - Looking at value or action
    - Solid PD can have an impact
    - PD for EE folks can help with this as well (recent EF training)
    - Tangible ways to do
      - Lone educators can make the transition but as part of a larger organization the shift can take some time
      - This is a long term piece
      - Maybe a deeper dive with educators can help this get embedded - is it a knowledge barrier?
        - Both knowledge and maybe some extent content related
- Susan - Timing is key
  - Starting small can help - entry level action
- Candace - Orientation challenge: teachers need to see the learning impacts that engagement in action projects have on their students. Need to engage a leader teacher

to do an action project with students. Other teachers see the positive effects and will follow. Helps if, initially, the action projects are seen as fairly simple to do, such as writing letters to government officials or holding a community open house at school highlighting the MWEE students did. -

- ^ providers play the role to show that people will respond positively to this engagement with the public etc. Showcase the success stories
- Part 2. One common hesitation I've seen on the part of teachers to engage in action projects is that these projects are somewhat "public", where learning typically that stays in the classroom is taken outside the classroom to a broader audience. Teachers are fearful of negative feedback, criticism. Another reason why hesitant teachers tend to engage in action projects after they see the positive effects on other students and positive comments from the "public."
- Cassie - teachers see that action connects to standards
- Kacey:
  - Based on Vince's response, it seems more robust professional development for non-formal education providers that seeks to a) increase knowledge specifically on the value of action project integration and b) increase self-efficacy in doing so would be valuable. Most pd we fund supports classroom teacher training, not informal ee provider training.
  - I like the suggested focus on working with ee providers as a midstream approach to change here. The programs offered are the marketplace in which teachers make decisions, shifting that marketplace to ensure action project integration that is topically connected to common issue investigations is a higher level intervention.
- Vince - will try to compile a list of "models" for doing this work - mentioned Jemima's approach in Queen Anne's county
- PBL - there is a strong emphasis in VA (maybe not elsewhere?). We need to talk about MWEE as a type of PBL so that teachers can bridge that gap
- Josh Bearman - (many second this) It is important that teachers are made to feel empowered to enact MWEEs without constant support from 3rd Party groups. The schoolyard/outdoors should be considered an extension of the classroom, not just something to be explored with a non-formal educator.

## IN-ROOM BREAKOUT

- Anne - VA teachers think action projects are something extra and big. Time is an issue
- Kids found increasing temperatures around their city interesting and thus helped to determine the scope of their action project
- Steve - doing an instructional unit was not enough and decided to interview students. Students do not feel like they have locus of control to do the project or make a difference. Stroud is building in examples across the MWEE framework and creating pathways on action projects of any sort
- Not as two-way discussion as it could be - changing procedures in the classrooms requires changing the belief system. What can we do to show what an action project is but show how it is meaningful across the entire education program to identify those glitches in the belief system
- Tammie - Reaching people who already have a passion for this work and identifying those who do not and need to be convinced to support this work
- Tom - Making sure it is relevant to what they are already doing, not something extra they have to do
- Steve - Confidence in comfort level for teachers and school administrators - teachers will not be comfortable until they have experience implementing projects. What other supporters do teachers and administration need?

*What models seem to work the best for creating MWEEs that are topically connected from start to finish?*

## PHONE BREAKOUT

- Cassie - Standards connection is key
  - Connect to what students are learning
- Vince - service learning models can work
  - Project Based work
  - Jemimah Model
- Cassie - EE folks partnering with field folks can be productive
- Are there partnership opportunities with the PBL coordinator
- Student focus and determined - this is done in partnership with educators - this can open doors to projects that connect to policy.
- Josh - explore beyond the 4 walls of the classroom - It is important that teachers are made to feel empowered to enact MWEEs without constant support from 3rd Party groups. The schoolyard/outdoors should be considered an extension of the classroom, not just something to be explored with a non-formal educator.

## IN-ROOM BREAKOUT

- Anne - performance assessments in 6th grade - showing how it aligns standards and makes less intimidating to teachers - do this on a broader scale
- Shannon - Embedding MWEEs in what teachers are already doing

- Britt - encouraging teachers to think about action projects first and do investigations to figure out what those action projects will be
- Steve - Scout badges have service projects embedded
- Tammie - EE has always supposed to end with action. Encourage the concept that this is a sound way to teach content; and community based effort.

***Introducing the New Online MWEE Trainings and Revised MWEE Guide:*** *Elise walked the workgroup through the new MWEE 101 course, which is available for use now and has approved credits for teachers! She also discussed progress towards the first state focused MWEE 201 course in development for the state of Maryland, and highlight the revised MWEE Guide. We hope that these tools make it easier for Workgroup members to develop and implement workshops.*

*(Elise Trelegan)*

- Audience: formal and non-formal educators
- Educators who take the course and receive certifications are tracked
- The Tool provides practical examples, including video case studies and takes educators through the Planning Toolbox from the MWEE Guide to visualize what the process looks like for implementing MWEEs
- New MWEE Guide is overall similar to its predecessor with some changes in language such as the Environmental Literacy Model
- MWEE Online Course and Guide are available on Bay Backpack

***Discussion Question:***

- ***How do we ensure that MWEE providers are aware of and use the MWEE resources?***
  - Tammie - Model in PD throughout respective states - shine a light on successes to share what different teachers are doing in the field and what MWEEs are doing to enhance learning. Ensure this is coming from schools of diverse backgrounds
  - Shannon - MWEE videos highlight successful MWEEs that have been implemented in schools - Share in your workshops
  - Tom - This is a tool that augments in-person PD. This set of tools provides solutions and should be supplemented
  - Regional ELIT tours/workshops to promote these resources
    - MD is hosting them (Donna)
    - Steve is hosting some in regions throughout PA (Stroud grant) - focused on non-formals first, now doing one-day workshops for teachers, but will allow non-formals to attend. Doing Administrator workshop too.
  - Tammie - Requests to bring back institutes. See more intentional layering of programs across PA (120). Look at sequencing them, offering support, and providing the components of watershed education to look at how to do the networking. Almost 500 organizations reached through PA EE. Programs also include agriculture.
  - Josh - VA also had large wait list for their workshops. Want to hear it from DOE so these workshops tend to fill.

- Ann Petersen - Engaging formals and non-formals in more PD and aligning with standards to provide consistency among different workshops.
- Shannon - Put together a universal rubric for implementing PD that can be used by all the states. Is there value in a regional meeting focused on this? (group said yes)
- **Decision** - Workgroup agrees on the need to develop a rubric for implementing PD.

**1:45-1:55      Break**

**1:55-3:25      Ensuring Equity in Environmental Education**

***What does equity in Environmental Literacy mean?:*** Diversity Workgroup members provided an overview of the definitions, data, and initiatives related to diversity, equity, inclusion, and justice for the Chesapeake Bay Program. Then the group discussed how this relates to the Environmental Literacy Goal. (Tuana Phillips/Francesca King)

- Update: Diversity Workgroup is currently developing a DEIJ Strategy and will be conducting cultural competency trainings with EPA Goal Team funding.
- Tom - is the Diversity Workgroup only focused on racial ethnic or are there additional categories? Women in leadership and English as a second language are important focus areas for the Education Workgroup.
- Francesca - Yes.
- Tammie - Due to agriculture, there is a high Latino population and there are issues with low income areas that need to be addressed.
- Francesa - Environmental Justice Screening Tool looks across all of these different issues.
- Britt - This is an opportunity to build in more of the Diversity priorities into the Environmental Literacy Workplan and vice versa.

***Discussion Questions:***

- *What are the barriers to achieving equity in environmental education?*

On the Phone:

- Trena - folks that look like them when we go out
- Brittany - sustained recruitment (schools, internships, workforce dev.)
  - Available, known and accessible to all
- Susan - retention is another factor here, the env. Needs to be one in which folks want to stick
  - Options we can build a career from
  - “ smart kids steered towards engineering etc.”
- Trena - significance of these real world experiences
- Bart - NAAEE affiliates can help with this

In the Room:

- Britt - using incoming data to identify areas that need ee. We see that schools need help with ee but they do not always want our help. Schools should help us help them and provide the resources for them to do that
- Anne - Account for teacher turnover after gaining buy-in to ensure consistent support of those divisions.
- David Christopher - Understanding the primary concern of the school district and engage them in a different way
- Tammie - Making it clear what ee is and whether schools have resource accessibility
- Josh - Framing the goals -- less environmental advocacy; loving the environment is not the case for every student or teacher
- Getting more community buy-in
- Josh - Reaching stakeholders and those organizations that communities trust (churches, Boys and Girls Club, etc.)

· *What efforts currently exist to address these efforts and how could we support or build on these efforts?*

#### *PHONE BREAKOUT*

- Partnering with HBCUs to create/establish bridges here
- Target groups College and K-12 schools to engage in
  - Careers and maybe just some exposure to the opportunities
    - Exposure to an urban environment; broaden geographic perspective of their watershed; deepen understanding of how our actions in the headwater region impacts downstream environments
  - Jobs sessions at conferences
- Brittany - career days
  - Internship groups (Latin-x, HBCU- org within Green Youth Org? - can get kids into env. Job fields)
    - What is in place to support diverse internships and ensure they know when and if jobs are available
- Coreen -
  - Remember Get Out! Get Green! Get Paid!?? Coastal Stewards and Coastal Bays efforts -- conservation jobs oriented
  - MANNRS
- Candyce - At Blandy, I developed an internship program with Howard University so that the majority K-12 Caucasian student population in rural Clarke Co, VA would interact with semi-professional scientists (because they are students) of color and can learn about watershed management in the urban environment in DC
- Kacey - There are so many dimensions to this conversation and I feel like we are focusing on enhancing the pipeline of diverse individuals seeking to join the EE movement from a career perspective, which is really important. I am just having a hard

time jumping in on this because I would prefer to think first about all the dimensions of challenges in the EE sphere and then discuss barriers and solutions.

- Jim Serfass - NatureBridge has a program called the Educator Development Program that encourages individuals from under-represented populations to become environmental educators. Typically, this program takes place at the NB campus in Yosemite, but we'll have funding in 2020 for EDP program here in the Mid-Atlantic.

#### IN-ROOM BREAKOUT

- Tom - DEIJ Action Guide -- taking next step from identifying the problem to proposing solutions
- Anne Petersen - Engage other organizations having conversations around DEIJ
  - National Council of Teachers of Mathematics
  - Council of State Science Supervisor
- Tammie -
  - Association for Science Teacher Education (ASTE)
  - NAAEE
  - Model: Philadelphia School District - Urban Watershed Program
- Tom - Program in Baltimore working with schools to help with transportation problem

***Understanding gaps in Systemic Implementation:*** Shannon provided an overview of how data from the Environmental Literacy Indicator Tool (ELIT) can help us better understand the distribution of MWEE and sustainable schools efforts around the watershed, and how to ensure that this round of ELIT data collection is a success. (Shannon Sprague/Tom Ackerman)

- Survey sent out to school districts every two years to update ELIT data
- ELIT data was overlaid with EJ Screen data to help better identify gaps/needs from school districts in underserved communities. It is important that school districts know this data is important for supporting their environmental education programs
- DC, MD, and VA have highest percentage participation in the ELIT survey
- Data collection for 2019 has begun and will close in October
- For questions about ELIT data, contact Shannon Sprague

#### *Discussion Questions:*

- *What data sets should we use to better understand equity issues related to environmental education?*

#### PHONE BREAKOUT

- Where are the big funders (B-WET, CBP, EPA, etc) spending dollars - and how much/how much per student
- Income demographics
- Cassie, what are the env. Issues (like lead) that can be explored in MWEE programming
- Water quality in the proximity of neighborhoods
- Food sources - access to grocery stores, gas stations, fresh produce

- Susan - mitigation that has been happening with green infrastructure
- Teacher salary - before the students types of data
  - Teacher retention parts as well
- Tammie - ESSA (Every Student Succeeds Act) brings into the scheme requirements for plans to improve, assessment and accountability, etc.
  - There is there are two categories of plans Comprehensive Improvement” schools, which are the lowest performing schools in a state
  - “Targeted Support and Improvement” schools, where certain student groups are consistently underperforming
- Brittany - with language isolation areas, I'd like to know if school provide dual language, teachers that speak those languages fluently, or language learning programs
- Candace - Including data that looks at access to SAFE outdoor learning environments. For example, if there is a common gun violence in an area, students and teachers may not feel safe to learn outdoors.

#### IN-ROOM BREAKOUT

- Britt - MD has a park equity analysis map that has been linked to the EJ Screen to see proximity to nature -- helps identify barriers from preventing students from utilizing green spaces (Cacapon: access to public lands)
- Shannon - D.C. also conducting a park equity analysis
- Steve - Looking at categories of land use -- pervious vs. impervious
- Britt - MDOT-[Get Kids Outside in Maryland Story Map](#)
- Shannon - Title 1 Status should be included
- Tammie - School districts not meeting levels (Targeted Support and Improvement)
- Anne - Accreditation status of schools -- if they are not accredited they likely won't engage because they are focused on reading and math
- Tom - Per pupil expenditure
- Josh - Students will be interested in EJ Screen and other data as a learning tool
- David - How many nonprofits are already targeting the school district
- Shannon - Look at ways to collect this data

· *How can we ensure a good response rate in 2019?*

#### PHONE BREAKOUT

- Use RFPs to answer the question have you completed the ELIT survey - can it be part of the RFP
- Individual check ins with school districts to encourage participation (can we get a list of those that complete this survey)
- Maybe mentors/helpers can prepare the survey
- Is there a template that could be used to collect the data over time/track participation

#### IN-ROOM BREAKOUT

- David - Let school districts know that responding even if they have nothing going on could bring resources to them in the future.



- Anne - Taking an authoritative approach to get responses
- Shannon - What response data are we comfortable sharing and what are we not comfortable sharing?
- Anne - States need to figure out what can be shared
- Shannon - Provide samples of data with different levels of detail to see what level is acceptable to share

***Addressing Equity in the Environmental Literacy Goal:*** Building from the previous conversations, the group discussed the take-aways from the recent Leadership Summit that focused on equity in environmental education, and heard about a new effort being spearheaded by the Education Workgroup to address equity: the Outdoor Learning Network Initiative. The group then discussed what specific actions are being taken in the states and region to address equity and how we might expand and better coordinate these efforts, and perhaps kick-start others. (Tom Ackerman/Karen Mullin/Shannon Sprague/Holly Gallagher)

- Tuana - Are you planning to partner with local governments when building the Outdoor Learning Network?
- Tom - Identifying those members of the community working with kids who have not been brought into the fold but have the resources that could build sustainable programs over time

*Discussion Questions:*

- How can we identify other districts that fit this profile and help us equitably grow E-lit in each state?

#### PHONE BREAKOUT

- Kacey - I think high need districts could be prioritized with the additional data layers already discussed and then honestly I think we need to go to them and meet with them in person several times. I think we should do this when we have enough resources to really offer OLN more broadly.

#### IN-ROOM BREAKOUT

- Tom - Reaching high need students
- Shannon - Once we have reached high level districts, overlaying environmental information that we know is important
- Tammie - Outreach in PA happening -- working with your office of environmental justice board to identify key school districts
- David - Going to the school districts and asking them what we can do for them
- Tom - Connect underserved districts and get more data for us. Having more comprehensive data from the ELIT Tool will help us identify needs.

**3:25-3:30      Announcements**

- Tammie - Science and education coordinators working with standards would like to meet on a quarterly basis. August 28 will be the next meeting. Contact Tammie if you would like to be included in this conversation.
- Steve - New project administered by EPA grant to interview sustainable schools recognition programs around the Bay Watershed looking at BMPs on school properties.
  - Interviewing sample schools around the watershed who do have BMPs on school properties and how they are using them for education.
  - Looking at barriers preventing schools from installing BMPs on school grounds.
  - Next, creating a decision matrix to connect with potential funders about good school districts to target to put projects on the ground.
- Tom - January 22-23, 2020 is next Environmental Literacy Forum at NCTC

Tammie - If you would like to participate in the state Science and EE advisor/coordinator meetings/calls, please contact Tammie Pepper at [tpeffer@pa.gov](mailto:tpeffer@pa.gov). First tentatively scheduled August 28th. Location and time TBD based on those interested.

### **Attendees**

Shannon Sprague, NOAA, Co-Chair  
 Tom Ackerman, Chesapeake Bay Foundation, Co-Chair  
 Drew Pizzala, Chesapeake Research Consortium, Education Workgroup Staffer  
 Caitlyn Johnstone, Alliance for the Chesapeake Bay  
 Steve Kerlin, Stroud Water Research Center  
 David Christopher, Delaware Sea Grant  
 Francesca King, Chesapeake Research Consortium  
 Tuana Phillips, EPA  
 Connor Roessler, Cacapon Institute  
 Cindy Etgen, MD Department of Natural Resources  
 Tammie Pepper, PA Department of Education  
 Josh Bearman, VA Department of Education  
 Anne Petersen, VA Department of Education  
 Emmet Gardner, NOAA Intern  
 Elise Trelegan, NOAA  
 Bart Merrick, NOAA  
 Krysta Hougren, NOAA  
 Britt Slattery, MD Department of Natural Resources  
 Coreen W, MD Department of Natural Resources  
 Cassie Dotty, University of Maryland Center for Environmental Sciences  
 Brittany Hall, National Park Service  
 Caitlyn Johnstone, Chesapeake Bay Program  
 Vince Meldrum, Earth Force  
 Grace Scarsella, Earth Force

Dorian Janney, NASA GLOBE Program  
Tina Correll, NASA  
Bill Portlock, Chesapeake Bay Foundation  
Melani Loney, Old Dominion University  
Holly Gallagher, National Wildlife Federation  
Candace Lutzow-Felling, Blandy Experimental Farm  
Susan Cox, U.S. Forest Service  
Grace Manubay, D.C. Office of the State Superintendent  
Frank Rodgers, Cacapon Institute  
Susan Cox, U.S. Forest Service  
Holly Gallagher, National Wildlife Federation