**Pennsylvania Environmental Literacy Update**

**June 2019**

**State Working Group Update:**

Pennsylvania’s Environmental Education Act, signed into law in 1993, provides for and encourages environmental education (EE) programs within the Commonwealth, across agency and commission boundaries. The EE act also mandates several advisory panels, including the Pennsylvania Advisory Council on Environmental Education (PA ACEE). The PA ACEE serves to advise and assist the Department of Education (PDE), Environmental Protection (DEP), and Conservation and Natural Resources (DCNR) as well as affiliate agencies, commissions, and formal/non-formal educators in the design and application of their respective programs, identify and track trends and needs related to EE, and making recommendations as to application of funds related to environmental and ecological education programs. The council is comprised of PA cabinet level designees and representatives from formal and non-formal education in K-12/Higher Education and agencies or organizations that have an interest in agriculture, conservation, economic, and community affairs.

In January 2019, PDE filled the long vacant position of Environment and Ecology Advisor, a jointly funded position through a Memorandum of Understanding (MOU) between the Pennsylvania Departments of Education, Environmental Protection, Conservation and Natural Resources, and Agriculture. Working with the affiliate agencies, PDE set priority to the reconstitution and reinvigoration of the PA ACEE; its first meeting was held June 24, 2019. The council’s initial charge is to review and evaluate existing programs and materials and construct a comprehensive environmental literacy and strategic plan to strengthen support for both formal and non-formal educators as they strive to meet the outcomes of the PA Environmental Literacy Plan and advance the Environmental Literacy Goals and Outcomes of the Chesapeake Bay Watershed Agreement of 2014 reaching beyond the Chesapeake Bay Watershed, applying statewide implementation.

**NAAEE Affiliate Update: Pennsylvania Association of Environmental Educators (PAEE)**

PAEE had largest conference attendance in 2019 compared to recent years (~170 attendees). PAEE hired a part-time administrative assistant to help the volunteer board and contribute to the PA Capacity Building grant. A board member is part of the leadership team of the NOAA Bay Watershed Education & Training PA Capacity Building grant through the Stroud Water Research Center.

**Standards of Learning/Curriculum:**

Pennsylvania’s Academic Standards for Environment and Ecology have been in place since the 2002 (22 PA. Code, Chapter 4, Appendix B). Efforts are underway to design support tools, demonstrate associated curricular frameworks, assessment and anchors, and spell out cross curricular application using Environment and Ecology standards as springboards for transdisciplinary curriculum development.

**Statewide Efforts to Support Environmental Literacy**

1. **PA DEP Grants programs**
   1. Environmental Education Grants Program provides financial assistance to schools and community organizations to promote a healthy environment. EEG program sets aside five percent of the pollution fines and penalties DEP collects annually for environmental education in Pennsylvania; since its inception, DEP has awarded 1,991 grants totaling $11,831,883.
   2. PA DEP is currently developing an annotated GIS map of all DEP EE Grant recipients from 2017 through 2019, highlighting the distribution EEG funds throughout the Commonwealth.
2. **NOAA B-WET Grant Work**
   1. PA Capacity Building Grant (July 2017-June 2020), led by Stroud Water Research Center and leadership team (PA DEP, PDE, DCNR Bureau of State Parks, Millersville University, PAEE, Chesapeake Bay Foundation - PA Office)
      1. PA Watershed Education Task Force meets twice per year (>40 representatives).
      2. EE Provider Inventory now includes 401 organizations; to be shared via PAEE, summer 2019.
      3. PA Environmental Education Status & Needs Survey (distributed spring; analysis summer, report in fall, 2019). (*n: 270 non-formal EE organizations, 266 classroom teachers, 152 school administrators*)
      4. MWEE Support and recognition: PA online MWEE module and PA MWEE video have been created. The PA MWEE Award Program is in design; awards to be announced at PAEE 2020.
   2. CBF’s Systemic Solutions for the Susquehanna BWET Grant (2nd year) continues to deliver systemic MWEE trainings for Central PA teachers. DCNR (Bureau of State Parks) is a primary, DEP, PDE, and PSU Extension Office, support the effort.
3. **Professional Development and Outreach** (All participants are encouraged to apply for B-WET and EE fund grants)
   1. Stroud Water Research Center’s MWEE Capacity Building BWET grant is now in its third year of funding, conducted 4 2-day MWEE Ambassador workshops for teachers; 2 were hosted at state parks sites. A similar for school administrators will occur in August.
   2. PA DEP offered 9 “Weathering the Storm” stormwater workshops (2018 (4); 2019 (5)) with a goal to provide technical assistance related to Stormwater BMPs, the program utilizes the MWEE framework; County Conservation Districts provide technical assistance at a local level.
   3. DCNR’s PA State Parks Watershed Education program promotes Meaningful Outdoor Education Experiences and serves to help teachers integrate. In 2018, ~10,000 students participated in affiliated programs. BSP offered four separate Watershed Education PD sessions.
   4. PA Watershed Education Task Force delivered a robust PD schedule. All PD opportunities are shared through “Teaching Green” (DEP newsletter), PennLink (PSU’s on-line list-serve), and the DCNR, DEP, and PDE list-serves.
      1. 2 pre-service teacher workshops Millersville University (MU) 2017-2018, 2 more at MU 2018-2019, 2 at Kutztown University (KU) 2018-2019, 2 each planned at MU, KU, and Slippery Rock University 2019-2020.
      2. 3 non-formal educator MWEE and Advanced Watershed Education Skills workshops (2-day) delivered 2018-2019, 1 more for non-formal educators planned for Aug. 2019, 1 MWEE Ambassador Workshop for School Administrators planned for Aug. 2019, 4 MWEE Ambassador Workshops for Classroom Teachers planned for 2019-2020.

**Current Challenges**

* Equitable access to environment and ecology themed curricula within environmental justice areas.
* Systemic lack of awareness as to transcurricular frameworks and methods designed to integrate Environment and Ecology Standards and Meaningful Outdoor Education Experiences.
* E&E affiliated PD within district, administrative, and state-wide levels is often usurped by other education and school safety requirements.
* Reformation of relationships and partnerships formerly anchored by PDE E&E Advisor position.
* Decrease revenue (fines and penalties) in PA reduced the PA DEP EE Grant and EE office budget.

**Goals and Opportunities**

* Embrace the current momentum, increasing commonwealth Meaningful Education experiences
* Increase the number of PA DEP EE Grant and B-WET applicants, recipients, and funded projects.
* Further use of Stormwater BMPs and installation of school yard habitats on school grounds.
* Stimulate the implementation of EE projects that have a real and measurable impact on improving water quality in all watersheds with the Commonwealth.
* New MOU relationships with opens communication into formal and non-formal venues in Ag and environmental justice areas