

Biennial Strategy Review System: Logic Table and Work Plan

Environmental Literacy Planning and Metrics Logic Table and Work Plan

Long-term Target: Continually increase the number of schools in the region that reduce the impact of their buildings and grounds on their local watershed, environment and human health through best practices, including student-led protection and restoration projects

Two-year Target: Not established

KEY: Use the following colors to indicate whether a Metric and Expected Response have been identified.

Metric	Percent (and number) of public and charter schools in the Chesapeake Bay watershed certified sustainable
Expected Response	No timeline for progress for this action has been specified

Factor	Current Efforts	Gap	Actions (critical in bold)	Metrics
<i>What is impacting our ability to achieve our outcome?</i>	<i>What current efforts are addressing this factor?</i>	<i>What further efforts or information are needed to fully address this factor?</i>	<i>What actions are essential to achieve our outcome?</i>	<i>Optional: Do we have a measure of progress? How do we know if we have achieved the intended result?</i>
State Education Agency (SEA) Leadership and Staffing for Environmental Literacy	<i>Attempting to gain support for focuses PSC agenda on formal education at least once every 2 years; Encouraging high level support within state education agencies; Maintain adequate staffing to drive MWEE implementation</i>	Better engagement of SEA leaders; Dedicated staff support at SEA	3.1, 3.2	No.
Local Education Agency Implementation of Environmental Literacy Programs	<i>Encourage the distribution of the ELIT survey to better understand school district needs</i>	School district environmental literacy plans; Participation in ELIT survey	2.1, 2.2	Yes. ELIT.
Education Reform		Curriculum alignment	1.1, 1.3 (See Student section for additional specific actions)	No.

Funding	<i>Identify existing state funding that could advance MWEE implementation</i>	Additional funding to support projects	1.2, 3.2, 3.3	No.
State agency and partner coordination (NEW)	<i>Maintains interagency state workgroups;</i> <i>Work with states towards cross-agency “Collective Impact” efforts that include appropriate leadership and organization, metrics, and support</i>	Better collaboration; Established state plans	3.1, 3.2, 3.3	No
School community (teachers, principals, staff) awareness and readiness (NEW)	<i>Develop, improve, and expand partnerships as well as opportunities for professional development to increase MWEE implementation across jurisdictions</i>	Teacher and administrator professional development	2.2 (See Student workplan for additional specific actions)	No

ENVIRONMENTAL LITERACY: 2018-2019 PLANNING WORK PLAN ACTIONS					
Action #	Description	Performance Target(s)	Responsible Party (or Parties)	Geographic Location	Expected Timeline
Management Approach 1: Support school district efforts to embed locally appropriate environmental practices, content, and learning opportunities into curriculum and operations.					
1.1	Encourage and support school district efforts to develop K-12 environmental literacy frameworks that document in which grade(s) MWEEs and other environmental literacy programming occurs.				
		Collect examples of frameworks	CBP	Region	
		Complete a revision of the MD Environmental literacy standards.	MSDE	MD	Dec 2019
		Promote environmental literacy instructional plans through high quality professional development.	VDOE	VA	Ongoing
		Provide technical assistance in curriculum development.	PDE	PA	
		In partnership with Intermediate Units and using the PA Department of Education literacy frameworks, build a STEM Toolkit for SAS and OER Commons.	Stroud	PA	Dec 2019
		Review NGS Content Standards and Objectives for Science (Policy 2520.3C) for correlation to Bay MWEE's for rigorous science and environmental-related content.	Cacapon Instittue	WV Bay Counties	Nov 2019
1.2	Provide technical and/or financial assistance to support school districts with the integration and implementation of MWEEs and sustainable schools into appropriate grade level curriculum.				
		Fund the development of systemic MWEEs and related district plans	NOAA	Region	

		Conduct statewide regional meetings and consistent communications with all 24 LEAs in support of MD Environmental Literacy graduation requirement.	MSDE	MD	Ongoing
		Coordinate the development of an email distribution list that would allow for information to be disseminated to personnel within school divisions. This distribution list will serve as a conduit to provide technical support in the form of lessons, activities, etc that are aligned to grade level curriculum.	VDOE	VA	Ongoing
		Update current MWEE exemplars from website to reflect proposed 2018 Science Standards of Learning.	VDOE	VA	Dec 2021
		Increase/continue funding for MWEE programs (Overnight MWEE for grade 5 and Trash-focused MWEE for grades 4-8).	DOEE	DC	2019
		Continue to offer funding through the PA DEP EE Grant Program and provide technical assistance to LEAs in support of MWEE across K-12.	PA DEP	PA	Ongoing
		Distribute "Guide to Field Trips" to all Delaware teachers.	DNREC	DE	Ongoing
		Report on MWEE and stormwater BMP installation at schools.	Cacapon Institute	WV Bay Counties	Nov 2019
		Provide leadership and technical assistance to schools and non-school organizations in developing environment and ecology, agriculture and society, sustainability, and STEM lesson plans, instruction material, and program criteria by establishing content standards for the EEP which meet or exceed Environment and Ecology and Environmental Education, Agricultural Education, and STEM standards.	PDE	PA	

1.3	Collect examples of model planning documents (e.g. environmental literacy frameworks, sustainability plans, curriculum integration tools) and broadly share with school districts.				
		Post example of model planning documents on Bay Backpack.	CBP	Region	Jun 2019
		Create school snapshots for Environmental Literacy Leadership Cadre cohort 2 (11 DCPS schools and 5 charter LEAs) and post on the OSSE website.	OSSE	DC	2019
		Request district/grade level instructional plans that integrate all components of MWEE to serve as exemplars for distribution.	VDOE	VA	Ongoing
		Update VDOE web page to include vetted MWEE instructional plans aligned to Science Standards of Learning.	VDOE	VA	Ongoing
		Meet with formal and non-formal educator leaders to determine best practices in environmental education and create vetting process for determining state exemplars.	VRUEC	VA	Twice a year
		Develop and expand repositories of resources for formal and non-formal, and pre-service educators.	PDE	PA	2020
		Develop EE Curriculum Framework and related tools to support EE learning in formal and non-formal spaces.	PDE	PA	2020
1.4	Encourage the development of local networks that include school district(s), environmental education providers, and local community groups to provide in-school and out-of-school opportunities to foster youth engagement.				
		Support the development of local networks to support MWEE design and implementation in underserved areas	CBF	Region	Dec 2019

		Create Environmental Literacy teams composed of one formal and one non-formal educator in each Superintendents region. Each team will communicate environmental opportunities specific to their region and will serve as a resource for both formal and nonformal educators in the area. Each team will also serve as a conduit between the localities, VRUEC, environmental organizations, and state agencies.	Project Green Classrooms	MD	Dec 2018
		Promote the new Delaware Outdoor Classroom Network on DCIN website and to schools, environmental education providers and community groups and highlight schools with outdoor classrooms. Promote Youth Environmental Career Opportunities in Delaware on DCIN website.	Delaware Children in Nature	DE	Dec 2018
		Create Environmental Literacy teams composed of one formal and one non-formal educator in each Superintendents region. Each team will communicate environmental opportunities specific to their region and will serve as a resource for both formal and nonformal educators in the area. Each team will also serve as a conduit between the localities, VRUEC, environmental organizations, and state agencies.	VRUEC	VA	Dec 2018
		Provide the leadership necessary to address the responsibilities of the PDE in the Environmental Education Act, including serving as the PDE liaison to the Advisory Council on Environmental Education, promoting the components of the Pennsylvania Environmental Literacy Plan, meeting the requirements of 22 Pa. Code Chapter 4 and serving on the Pennsylvania State Outdoor Recreation Plan, as assigned by the Secretary of Education.	PDE	PA	
		A key aspect of the NOAA PA Environmental Literacy Capacity Building Task Force is the development of a statewide environmental education providers listing.	PA DEP	PA	2020

		Develop a statewide environmental education providers listing.	EEAC, CBF	PA	2020
		Provide PD for EE Providers annually.	EEAC	PA	2020
		Hold Quarterly CIN Meetings.	DOE/DNREC	DE	Ongoing
		Maintain the DAEE's outdoor classroom Network.	DAEE	DE	Ongoing
		Continue to support the Next Gen Teacher Leaders network.	DE DOE	DE	
		Provide leadership and technical assistance to schools in developing the EEP planned instruction and program criteria through content standards for Environment and Ecology and Environmental Education, Agricultural Education, and STEM.	PDE	PA	
		Provide technical assistance, guidance and support to schools by providing learning experiences for teachers and students as outlined in the "An Educator's Guide to the Meaningful Watershed Educational Experience" and the Environmental Stewardship and Watershed Protection Act, 27 Pa.C.S.§6101 et seq., along with the CBA.	PDE	PA	
		Through the NOAA PA Environmental Literacy Capacity Building Task Force document MWEE implementation and through professional development. Through a collaboration with Intermediate Units and the PDE literacy frameworks can be part of a statewide effort launching summer 2018 to build a STEM Toolkit for SAS and OER Commons.	PA DEP	PA	Ongoing
Management Approach 2: Use available data and information to strategically and equitably focus resources to support school district level environmental literacy planning and implementation.					
2.1	Create reports, data visualizations, and progress indicators using data from the Environmental Literacy Indicator Tool and other pertinent information (e.g. socioeconomic, natural resource, etc.) to better inform policy and resource allocation decisions.				

		Administer the Environmental Literacy Indicator Tool, and analyze and distribute regional and state level data.	CBP	Region	Dec 2019
		Work with CBP GIS team to develop maps and information to inform conversations about targeting environmental literacy work.	CBP	Region	Dec 2019
		Combine the state partners' GIS data, overlaying schools, parks, trails, open space, transportation systems, communities, etc., to provide a more comprehensive understanding of existing access to nature across Maryland. Understanding this will help focus efforts to identify specific needs such as new transportation links or expanded trail systems, and explore mechanisms across programs to carry out effective solutions [in schools, e.g., looking at alternative transportation options for field experiences].	Project Green Classrooms	MD	Dec 2018
		Develop White Papers to provide scientific and policy basis for recommendations and actions moving forward in regards to the public health / health benefits to increased time for outdoor activities: (1) Policy -- Current state of policy and regulations in Maryland that cover the concept of outdoor time in schools; (2) Science -- Scientific summary of benefits to students from outdoor time. Include in annual report to Governor; use as a foundation to further work into 2019 to dive into case studies, and programming in Maryland including more data to help guide decision making.	Project Green Classrooms	MD	Dec 2018
		Create a succinct report reflecting data obtained through the ELIT that reflects Virginia's progress with environmental literacy. This report would be shared with stakeholders and would inform professional development.	VDOE	VA	Jun 2018
		Developing a GIS DEP EE Grant Map to highlight succesful grant recipients and their projects by action and location.	PA DEP	PA	Ongoing
		Complete a statewide survey of all environmental education providers to develop a network of MWEE utilizing BMPs.	PA DEP	PA	Jul 1905

2.2	Work with school districts to collect standardized data and information using the Environmental Literacy Indicator Tool.				
		100% participation in Maryland Local Education Agencies (LEA).	MSDE	MD	As Needed
		Continue to integrate E-LIT questions into the y early School Health Profile questionnaire.	OSSE	DC	2019
		Communicate to district leaders the need to complete the Environmental Literacy Indicator Tool.	VDOE	VA	As Needed
		Establish baseline and distribute information from ELIT Survey to LEAs and EE Providers to develop and promote programs.	PDE	PA	2019
		Document MWEE implementation and through professional development.	PA DEP	PA	Ongoing
		Develop, improve and expand partnerships for advancing environmental literacy in PA.	PA DEP	PA	Ongoing
		Collect data from Laurel and CR school district.	DNREC	Laurel and CR	Jun 2018
2.3	Create recommendations to advance environmental literacy, including budget projections for cost-effective approaches to strategically and equitably provide recognition, technical assistance, and financial support to local school districts.				
		Identify existing and perceived institutional barriers that prevent or discourage educators from bringing children to nature spaces, and provide guidance on best practices to overcome them. Support preparation of principals, teachers, and EE partners to appropriately facilitate quality learning experiences outdoors.	Project Green Classrooms	MD	Dec 2019
		Use report developed using ELIT data to inform stakeholders of perceived gaps in environmental education and to create recommendations that may be used to inform policy and budget considerations.	VRUEC	VA	Ongoing
		Continue to support these efforts through the PA DEP EE Grant Program.	PA DEP	PA	Ongoing

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

3.1	Regularly convene partners around key issues through interagency state working groups, the CBP Education Workgroup, and working with the Principals' Staff Committee to convene high-level leaders.	Work with the CBP Principals Staffing Committee to engage state Superintendents of Education and focus agenda on formal education at least once every 2 years.	NOAA	Region	Apr 2019
		Meet with formal and non-formal science educators through VRUEC twice a year or as needed.	VRUEC	VA	Twice a year
		Attend CBP Education Workgroup meetings and disseminate meeting notes to state groups.	Various	VA, WV, PA, MD	Ongoing
		Continue convening Maryland's Project Green Classrooms in part as a means to achieve and track commitments under the Chesapeake Bay Watershed Agreement's Environmental Literacy goal; use a subset of Project Green Classrooms actions that address environmental literacy opportunities through formal education as the state's contribution of actions toward the regional strategies, so that both work plans are in alignment with each other where appropriate.	Project Green Classrooms	MD	Ongoing
		Convene EE Advisory Council twice a year.		PA	Ongoing
3.2	Raise visibility and encourage new funding opportunities by working with national and regional environmental education organizations and funders.	Pursue funding from private foundations to support regional education structure and programs	CBT	Region	Dec 2019
		Transition some leadership responsibilities for Delaware Children in Nature to the Delaware Association for Environmental Education.	Delaware Children in Nature	DE	May 2019
		Communicate environmental science grant opportunities through non-formal educator channels.	VRUEC	VA	Ongoing
		Communicate environmental science grant opportunities through VDOE Teacher Direct, VDOE Science Update, and VDOE Environmental Web site.	VDOE	VA	Ongoing

		Maintain, update and revise all components of Pennsylvania's Virtual Professional Learning Community ("V-PLC") for teachers, and establish a social media presence for the V-PLC.	PDE	PA	
		Through the NOAA PA Environmental Literacy Capacity Building Task Force address the historically low participation of PA organizations in the NOAA Chesapeake B-WET grants and implementation of MWEEs.	PA DEP	PA	Ongoing
		Increase participation of PA organizations in the NOAA Chesapeake B-WET grants and implementation of MWEEs.	PA DEP	PA	Ongoing
3.3	Identify and promote means to secure the resources (policy, programs, and staffing) necessary to achieve the Environmental Literacy Goal.				
		Identify funding sources that support off site field experiences – specifically for transportation from schools to nature sites. Develop a user-friendly resource for existing funding sources that directly and indirectly support transportation from schools to nature sites. Develop guidance on how to successfully secure the identified funding resources.	Project Green Classrooms	MD	Dec 2018
		Secure dedicated funding to support field experiences for students at sites away from school campuses.	Project Green Classrooms	MD	2019
		Evaluate and revise Environmental Literacy Plan with Delaware Association for Environmental Education. Seek funding to have paid internship or staff to move initiative forward in DAEE.	DAEE	DE	2020
		Advocate for resources at the state and regional level to support formal and nonformal environmental education.	NCLI	VA	Ongoing
		Hire Environmental Protection Specialist who will work on environmental education at least 75% of the time.	DOEE	DC	2018
		Hire PDE State Environmental Education Advisor.	PA DEP	PA	2018