

# BIENNIAL STRATEGY REVIEW SYSTEM

## Chesapeake Bay Program



### Logic and Action Plan: Post Quarterly Progress Meeting

#### Environmental Literacy Planning and Metrics – 2018-2019

[NOTE: make sure to edit **pre-** or **post-** in the text above, to tell the reader whether this logic and action plan is in preparation for your quarterly progress meeting or has been updated based on discussion at the quarterly progress meeting.]

**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

<b>Instructions:</b> Before your quarterly progress meeting, provide the status of individual actions in the table below using this color key.
Action has been completed or is moving forward as planned.
Action has encountered minor obstacles.
Action has not been taken or has encountered a serious barrier.

Additional instructions for completing or updating your logic and action plan can be found on [ChesapeakeDecisions](#).

Factor	Current Efforts	Gap	Actions	Metrics	Expected Response and Application	Learn/Adapt
<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 help fill this gap) to achieve our outcome?</i>	<i>What will we measure or observe to determine progress in filling identified gap?</i>	<i>How and when do we expect these actions to address the identified gap? How might that affect our work going forward?</i>	<i>What did we learn from taking this action? How will this lesson impact our work?</i>
<b>State Education Agency (SEA) Leadership and Staffing for Environmental Literacy</b>	Attempting to gain support for focuses PSC agenda on formal education at least once every 2 years; Encouraging high level support	Better engagement of SEA leaders; Dedicated staff support at SEA	<a href="#">3.1 Regularly convene partners around key issues through interagency state working groups, the CBP Education</a>			

	within state education agencies; Maintain adequate staffing to drive MWEE implementation		<a href="#">Workgroup, and working with the Principals' Staff Committee to convene high-level leaders.</a> <b>3.2</b> <a href="#">Raise visibility and encourage new funding opportunities by working with national and regional environmental education organizations and funders</a>			
<b>Local Education Agency Implementation of Environmental Literacy Programs</b>	Encourage the distribution of the ELIT survey to better understand school district needs	School district environmental literacy plans; Participation in ELIT survey	<b>2.1</b> <a href="#">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.</a> <b>2.2</b> <a href="#">Work with school districts to collect standardized data and information using the Environmental Literacy Indicator Tool.</a>	Yes. ELIT.		
<b>Education Reform</b>		Curriculum alignment	<b>1.1</b> <a href="#">Encourage and support school district</a>			

			<p><a href="#">efforts to develop K-12 environmental literacy frameworks that document in which grade(s) MWEEs and other environmental literacy programming occurs.</a></p> <p><a href="#">1.3 Collect examples of model planning documents (e.g. environmental literacy frameworks, sustainability plans, curriculum integration tools) and broadly share with school districts.</a></p> <p>(See Student section for additional specific actions)</p>			
<b>Funding</b>	Identify existing state funding that could advance MWEE implementation	Additional funding to support projects	<p><a href="#">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.</a></p> <p><a href="#">3.2 Raise visibility and encourage new funding</a></p>			

			<p><a href="#">opportunities by working with national and regional environmental education organizations and funders</a></p> <p><a href="#">3.3 Identify and promote means to secure the resources (policy, programs, and staffing) necessary to achieve the Environmental Literacy Goal.</a></p>		
<p><b>State agency and partner coordination</b> (NEW)</p>	<p><b>Maintains interagency state workgroups;</b> Work with states towards cross-agency “Collective Impact” efforts that include appropriate leadership and organization, metrics, and support</p>	<p>Better collaboration; Established state plans</p>	<p><a href="#">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.</a></p> <p><a href="#">3.2 Raise visibility and encourage new funding opportunities by working with national and regional environmental education organizations and funders</a></p> <p><a href="#">3.3 Identify and promote means to secure the resources (policy, programs, and</a></p>		

			<a href="#">staffing) necessary to achieve the Environmental Literacy Goal.</a>			
<b>School community (teachers, principals, staff) awareness and readiness (NEW)</b>	Develop, improve, and expand partnerships as well as opportunities for professional development to increase MWEE implementation across jurisdictions	Teacher and administrator professional development	<b>2.2</b> <a href="#">Work with school districts to collect standardized data and information using the Environmental Literacy Indicator Tool.</a>  (See Student Logic and Action for additional specific actions)			

<b>ACTIONS – 2018-2019</b>					
<b>Action #</b>	<b>Description</b>	<b>Performance Target(s)</b>	<b>Responsible Party (or Parties) / Partners</b>	<b>Geographic Location</b>	<b>Expected Timeline</b>
<b>Management Approach 1:</b> Support school district efforts to embed locally appropriate environmental practices, content, and learning opportunities into curriculum and operations.					
<b>1.1</b>	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 school district frameworks	CBP / CBT, CBF	Region	Nov 2019
		Complete a revision of the MD Environmental literacy standards.	MSDE	MD	Dec 2019
		Promote environmental literacy instructional plans through high quality professional development.	Various / VA DOE, CBF	Region	Ongoing
		Provide technical assistance in curriculum development.	Various / PDE, CBF, NOAA	Region	Ongoing
		Assist and facilitate development of teaching units using MWEEs as a means to integrate environmental literacy standards with Next Generation Science Standards	UMCES Appalachian Lab / MSDE, MD DNR, CBF	MD	Dec 2019

## ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties) / Partners	Geographic Location	Expected Timeline
		Build a STEM Toolkit in partnership with Intermediate Units and using the PA Department of Education literacy frameworks	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 Institute / Experience Learning	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	2019; 2019
		Conduct statewide regional meetings and consistent communications with all 24 LEAs in support of MD Environmental Literacy graduation requirement.	MSDE / LEAs	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 / LEAs, DGIF, VDOF, VRUEC, DCR, DEQ, vASWCD, VIMS, CBF, SAV, CBNERR, NOAA, VAAE, VCE, DHR, DRBA	VA	Ongoing
		Update current MWEE exemplars from website to reflect proposed 2018 Science Standards of Learning.	VDOE / LEAs, DGIF, VDOF, VRUEC, DCR, DEQ, vASWCD, VIMS, CBF, SAV, CBNERR, NOAA, VAAE, VCE, DHR	VA	Dec 2021
		Increase/continue funding for MWEE programs (Overnight MWEE for grade 5 and Trash-focused MWEE for grades 4-8).	DOEE / OSSE, nonprofit grantees, LEAs	DC	2019
		Create a MWEE program (Middle School Watershed Education) that target middle school students.	DOEE	DC	2019

## ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties) / Partners	Geographic Location	Expected Timeline
		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 / informal educators	throughout state	Ongoing
		Report on MWEE and stormwater BMP installation at schools.	Cacapon Institute / Experience Learning, WVDEP, WVCA, WVDOF	WV Bay Count	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	
<b>1.3</b>	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 / DCEEC, nonprofit mentors, LEAs	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

## ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties) / Partners	Geographic Location	Expected Timeline
		Meet with formal and non-formal educator leaders to determine best practices in environmental education and create vetting process for determining state exemplars.	VRUEC / VRUEC, DGIF, VMNH, SWCD, DCR, VAAE, VIMS, SAV, CBF, VDOF, DRBA	VA	Twice a year
		Develop and expand repositories of resources for formal and non-formal, and pre-service educators.	PDE / PDE, DCNR, PADEP, PACTE	PA	2020
		Develop EE Curriculum Framework and related tools to support EE learning in formal and non-formal spaces.	PDE / EEAC, PDE, DCNR, DEP, Stroud Water Research Center	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 / CBT, NOAA, CBFN	Region	Dec 2019
		Create one central, online communication hub for young people to access information on green career opportunities, training and resources in Maryland, working with the Alliance for the Chesapeake Bay to develop a youth section of the Chesapeake Network online ( <a href="http://www.chesapeakenetwork.org">www.chesapeakenetwork.org</a> ).	Project Green Classrooms / CBT, DNR, others	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 / Delaware Association for Environmental Education, DNREC, Delaware State Parks	DE	Dec 2018



## ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties) / Partners	Geographic Location	Expected Timeline
		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 / VRUEC, DGIF, VMNH, SWCD, DCR, VAEE, VIMS, SAV, CBF, VCE, VDOF, DRBA, Science support organizations	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 / DCNR, PDE, DEP, DAG	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 DEP, DCNR, PDE, Stroud Water Research Center	PA	2020
		Develop a statewide environmental education providers listing.	Stroud, CBF / CBF, PA DEP, DCNR, PDE, Stroud Water Research Center	PA	2020
		Provide professional development for EE Providers annually.	Stroud / PA DEP, DCNR, PDE, Stroud Water Research Center	PA	2020

## ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties) / Partners	Geographic Location	Expected Timeline
		Hold Quarterly CIN Meetings.	DOE/DNREC / 95 partners	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 / CBF	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 DEP, DCNR, CBF	PA	Ongoing
<b>Management Approach 2:</b> 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	Administer the Environmental Literacy Indicator Tool and analyze and distribute regional and state level data.	CBP / NOAA, MSDE, VDOE,	Region	Dec 2019

## ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties) / Partners	Geographic Location	Expected Timeline
	Indicator Tool and other pertinent information (e.g. socioeconomic, natural resource, etc.) to better inform policy and resource allocation decisions.		PDE, DDOE, OSSE		
		Work with CBP GIS team to develop maps and information to inform conversations about targeting environmental literacy work	CBP / NOAA, MSDE, VDOE, PDE, DDOE, OSSE	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 / MDOT, MD DNR, MDH, MDP, etc.	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 Dept of Health (MDH), MD DNR, etc.	MD	Dec 2018
		Create a succinct report reflecting data obtained through the ELIT that reflects Virginia's progress with environmental	VDOE	VA	Jun 2018

## ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties) / Partners	Geographic Location	Expected Timeline
		literacy. This report would be shared with stakeholders and would inform professional development.			
		Developing a GIS DEP EE Grant Map to highlight successful grant recipients and their projects by action and location.	PA DEP / PA DEP	PA	Ongoing
		Complete a statewide survey of all environmental education providers to develop a network of MWEE utilizing BMPs.	PA DEP / PA DEP, PDE, DCNR, Stroud Water Research Center	PA	Jul 1905
<b>2.2</b>	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 LEAs	MD	As Needed
		Continue to integrate E-LIT questions into the yearly School Health Profile questionnaire.	OSSE	DC	2019
		Communicate to district leaders the need to complete the Environmental Literacy Indicator Tool.	VDOE / LEAs	VA	As Needed
		Establish baseline and distribute information from ELIT Survey to LEAs and EE Providers to develop and promote programs.	PDE / PDE, DEP, DCNR, EEAC	PA	2019
		Document MWEE implementation and through professional development.	PA DEP / PA DEP, DCNR	PA	Ongoing
		Develop, improve and expand partnerships for advancing environmental literacy in PA.	PA DEP / PA DEP, DCNR	PA	
		Collect data from Laurel and CR school district.	DNREC	DE	
<b>2.3</b>	Create recommendations to advance environmental literacy, including budget projections for cost-effective approaches to strategically and equitably provide recognition,	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	Project Green Classrooms / MDOT, MSDE, others	MD	Dec 2019

## ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties) / Partners	Geographic Location	Expected Timeline
	technical assistance, and financial support to local school districts.	principals, teachers, and EE partners to appropriately facilitate quality learning experiences outdoors.			
		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, MSDE / VRUEC, DGIF, VMNH, SWCD, DCR, VAEE, VIMS, SAV, CBF, VDOF, VCE, DRBA, VANCLI	VA, MD	Ongoing
		Continue to support these efforts through the PA DEP EE Grant Program.	PA DEP	PA	Ongoing
<b>Management Approach 3:</b> Ensure broad understanding at the state and regional level of the progress, gaps, and opportunities related to the Environmental Literacy Goal.					
<b>3.1</b>	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 / EPA, CBF	Region	Apr 2019
		Meet with formal and non-formal science educators through VRUEC twice a year or as needed.	VRUEC / VRUEC, DGIF, VMNH, SWCD, DCR, VAEE, VIMS, SAV, CBF, VAS, VCE, VDOF, VDOE	VA	Twice a year
		Attend CBP Education Workgroup meetings and disseminate meeting notes to state groups	Various	VA, WV, PA, M	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	Project Green Classrooms / MD DNR and MSDE, with many partners	MD	Ongoing

## ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties) / Partners	Geographic Location	Expected Timeline
		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.			
		Convene EE Advisory Council twice a year.	PDE / PA DEP, DCNR, PDE, Dept of Ag, PFBC, PGC	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 / CBF, NOAA, EPA, CBFN, Pisces Fdn	Region	Dec 2019
		Transition some leadership responsibilities for Delaware Children in Nature to the Delaware Association for Environmental Education.	Delaware Children in Nature / DAEE	DE	May 2019
		Communicate environmental science grant opportunities through non-formal educator channels.	VRUEC / VRUEC, DGIF, VMNH, SWCD, DCR, VAEE, VIMS, SAV, CBF	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 for teachers, and establish a social media presence for the effort	PDE	PA	Dec 2019
		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

## ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties) / Partners	Geographic Location	Expected Timeline
		Increase participation of PA organizations in the NOAA Chesapeake B-WET grants and implementation of MWEEs.	PA DEP	PA	Ongoing
<b>3.3</b>	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 / MDOT, others	MD	Dec 2018
		Secure dedicated funding to support field experiences for students at sites away from school campuses.	Project Green Classrooms / MD DNR, NAAEE, CBT	MD	2019
		Explore options to secure permanent position for state environmental literacy specialist (currently contractual) at MD State Dept of Education.	Project Green Classrooms / MD DNR / state agencies, NAAEE, CBF working w/ MSDE	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 / DAEE/DCIN	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 DEP, DCNR,	PA	2018

## ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties) / Partners	Geographic Location	Expected Timeline
			PDE, Dept of Ag		