

Biennial Strategy Review System: Logic Table and Work Plan

Environmental Literacy - Students 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.

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| 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 |
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| <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 Leadership for Environmental Literacy | <i>Encouraging the adoption of a new Education Directive</i> | <i>High level engagement from state DOEs</i> | 2.5 | No. |
| Local Education Agency Implementation of MWEEs (with partners) | <i>Create State level Policy drivers; Use ELIT to track MWEEs and needs</i> | <i>Urgency at the school district level to conduct MWEEs</i> | 2.3, 2.4 | Yes. ELIT survey collects data. |
| Education Reform/Curriculum Alignment | <i>Work with states and school districts to integrate MWEEs into curriculum to reduce perceived burden</i> | <i>Understanding that MWEEs are not add-ons</i> | 1.1, 1.2, 1.3, 1.4 | Yes. ELIT tracks districts that have integrated curriculum |
| Funding/Staffing | <i>Pursue private and innovative funding</i> | <i>Adequate funding for teacher training, transportation, and action projects</i> | | No. |
| School community (teachers, principals, | <i>Train "Ambassadors"</i> | <i>Principals (administrators) need to encourage MWEEs and line up the staff</i> | 1.1, 1.2, 1.3, 1.4 | No. |

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| staff) awareness and readiness (NEW) | <i>using the new MWEE Guide to support the development of more and better MWEEs; Create online training and maintain resources on Bay Backpack</i> | <i>to support them. Teachers need to be trained to deliver them.</i> | | |
| State agency and partner coordination (NEW) | <i>Ensure that there are staff to drive MWEE development and implementation</i> | | 2.5 | No. |

| ENVIRONMENTAL LITERACY: 2018-2019 STUDENT WORK PLAN ACTIONS | | | | | |
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| Action # | Description | Performance Target(s) | Responsible Party (or Parties) | Geographic Location | Expected Timeline |
| Management Approach 1: Increase professional development opportunities for educators (pre-service, teachers, and non-formal) to support the development and implementation of MWEEs. | | | | | |
| 1.1 | Create an online MWEE training hub on Bay Backpack based on the MWEE Guide that includes both regional and state-specific training modules and information about in-person training opportunities. | | | | |
| | | Complete series of videos explaining the elements of the MWEE. | NOAA | Region | Aug 2018 |
| | | Develop and post a new MWEE e-learning training on Chesapeake Exploration platform. | NOAA | Region | Sept 2018 |
| | | Develop state-specific modules to be included as part of the MWEE e-learning training. | NOAA | MD, DC, VA, DE, PA | Course developed by Dec 2018; pilot it in 2019. |
| | | Migrate lessons/activities/environmental literacy plans to Bay Backpack once they have been approved through a vetting process. | VDOE | VA | Dec 2019 |
| | | Provide PD to increase MWEEs implemented in schools. | PA DEP | PA | 2020 |
| 1.2 | Build and support a cadre of "MWEE Ambassadors" to champion the MWEE and help educators develop and implement them. | | | | |
| | | Present on MWEEs at state EE conferences. | NOAA | MD, VA, PA, DE | Ongoing |
| | | Promote "MWEE Ambassador" program to formal educators as a source of teacher recertification points. Promotion to occur through Science Update and Teacher Direct. | VDOE | VA | Ongoing |
| | | Promote "MWEE Ambassador" program to informal educators through VRUEC and regional environmental teams. | VRUEC | VA | Ongoing |

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| | | Develop MWEE Programming and disseminate through the NOAA Environmental Literacy Capacity Building Task Force. | PA DEP | PA | 2020 |
| | | Present at Delaware Teachers of Science annual conference. | NOAA | DE | |
| | | Establish and support implementation of a structure for professional development statewide for key audiences that will promote and help to achieve systemic Environmental Literacy that ultimately reaches every student with standards-based MWEEs. Use the regional MWEE training hub as the basis to develop a Maryland-specific version as part of a strategic approach, with coordinated content, support system / network, and plan for training more EE providers and formal educators to use standards-based MWEEs as a tool to achieve Environmental Literacy. | Project Green Classrooms | MD | Course developed by Dec 2018; pilot it in 2019. |
| 1.3 | Increase the number of standards aligned environmental literacy professional development opportunities that support MWEE implementation. | | | | |
| | | Use NOAA B-WET to fund systemic MWEEs that include standards aligned environmental literacy professional development. | NOAA | Region | Sept 2018; Sept 2019 |
| | | Fund systemic MWEEs, including teacher professional development, in Maryland school districts | CBT | MD | |
| | | Work with Professional Standards Teacher Education Board (PSTEB) to influence the Council for the Accreditation of Educator Preparation (CAEP) standards implementation in Maryland to include environmental literacy. Submit recommendations to consider e-lit preparation for pre-service teachers; work with MSDE to guide/influence implementation of new professional standards; explore other opportunities to increase EE experiences in undergraduate teacher education. | Project Green Classrooms | MD | 2019 |

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| | | Organize and host an NAAEE Guidelines workshop for nonformal education partners. | DCEEC | DC | 2018 |
| | | Promote high quality PD for implementation of EE Standards and Science, Technology and Engineering Standards aligned to the proposed 2018 Science Standards of Learning. | VDOE | VA | Ongoing |
| | | Design and implement high quality PD aligned with EE and Science standards using BWET and Title II funds. | VDOE | VA | Ongoing |
| | | Maintain professional development for PA State Park staff at existing levels. | DCNR | PA | 2019 |
| | | Develop a plan for implementation of MWEEs in professional development for all providers. | PDE | PA | 2019 |
| | | Promote high quality MWEEs. | PA DEP | PA | 2020 |
| | | Provide PD for watershed education professionals and traditional K-12 educators. | PA DEP | PA | Ongoing |
| | | Provide regional PD for providers of services to incorporate MWEEs and align to EE Standards. | EEAC | PA | Ongoing |
| | | Communicate PD opportunities through Teaching Green, Science Matters, SAS, and other STEM communication channels. | PDE, DEP | PA | Ongoing |
| | | Collaborate with PACTE to incorporate MWEEs and EE Education in pre-service programs. | PDE | PA | 2020 |
| | | Post 5th, 8th, and Biology MWEE units on Schoology site for teachers to use. | DNREC | DE | Jun 2018 |
| | | Provide MWEE Workshop in Delaware to introduce Delaware Teachers to MWEEs. | Delaware Children in Nature | DE | Jun 2018 |
| | | Develop and implement MWEE PD for teachers in WV Bay Counties that ties to existing WV CSO's and WVDE priorities. | Cacapon Institute | WV Bay Counties | Dec 2018 |

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| 1.4 | Collect examples of model Environmental Literacy Models (ELMs) that include scope and sequence and student work; and broadly distribute to professional development providers and educators. | | | | |
| | | Post example ELMs on Bay Backpack. | CBP | Region | Dec 2018 |
| | | Include example ELMs in online MWEE training. | NOAA | Region | Sept 2018 |
| | | Contribute examples from MD, collected through a project funded through NOAA, working with school system curriculum writers and EE partners. | MSDE | MD | Dec 2019 |
| | | As part of state-wide effort to build an open education resource, create an environmental education repository that would be a platform for formal and non-formal educators to share environmental instructional plans, lessons, activities, professional development opportunities, etc. | VDOE | VA | Dec 2019 |
| | | Request district/grade level and non-formal educator instructional plans that integrate all components of MWEE to serve as exemplars for distribution. | VDOE | VA | Dec 2018 |
| | | Use the NOAA PA Environmental Literacy Capacity Building Task Force to collect and disseminate resources, including ELM models. | PA DEP | PA | Dec 2019 |
| | | Create repository of resources to be utilized by formal, non-formal, and preservice educators. | PA DEP | PA | Dec 2019 |
| Management Approach 2: Increase the visibility and adoption of MWEEs as an educational best practice. | | | | | |
| 2.1 | Maintain environmental education awards programs to maintain visibility and excitement | | | | |
| | | Create awards program that recognizes excellence in MWEEs. | CBP | Region | |
| | | Manage. | CBP | | |

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| | | Award ceremony. | CBP | | |
| | | Continue DAEE/DCIN Awards for Excellence as an annual award program. | DAEE/DCIN | DE | Dec 2018 |
| | | Organize and host the annual Anacostia Environmental Youth Summit for grades 4-8. | DOEE | DC | Ongoing |
| | | Broadly engage Potomac Highlands communities in stormwater runoff pollution mitigation BMP's including schoolyard based BMP's tied to MWEE's. | Cacapon Institute | WV Bay Counties | Nov 2019 |
| 2.2 | Create marketing and instructional materials that showcase the importance of the MWEE and connect it to existing education initiatives (e.g. Next Generation Science Standards, Project Based Learning, etc.). | | | | |
| | | Complete 90 second promotional video on MWEE. | NOAA | Region | Aug 2018 |
| | | Complete formatting of High School Environmental Science instructional sequences, which were developed by District teachers to support teaching NGSS through the 5E instructional model. Post on the OSSE website and involve teachers in professional development opportunities. | OSSE | DC | 2018 |
| | | Develop exemplar MWEE performance assessments aligned to Virginia Science Standards of Learning for 4th, 6th, Earth Science and/or Biology courses. | VDOE | VA | Dec 2019 |
| | | Develop new videos promoting MWEEs through the framework of PDE's Environment and Ecology Standards as part of the NOAA PA Environmental Literacy Capacity Building Grant. | PA DEP | PA | 2020 |
| | | Incorporate 3D Teaching and Learning in all MWEEs and instructional materials. | PDE | PA | 2020 |
| | | Provide resources and training for after school programs. | PDE | PA | 2020 |
| | | Promote summer based programs. | PDE | PA | 2020 |

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| 2.3 | Improve the ability of regional and state networks to efficiently and effectively disseminate information about environmental literacy programs and practices. | | | | |
| | | Compile a concise set of pertinent research links and articles related to best practices and outcomes (e.g. academic achievement, stewardship ethic, enthusiasm for learning, 21st century skills, etc.) of the MWEE essential elements to inform program development, marketing, and growth. | CBP | Region | Ongoing |
| | | Maintain presence on Facebook & Twitter, and maintain the education workgroup listserv; look for opportunities to cross-post to national and state social media sites | CBP | Region | Ongoing |
| | | Strengthen the partnership between Delaware Association for Environmental Education and Delaware Children in Nature, increasing DAEE's leadership role in DCIN. | DAEE/DCIN | DE | May 2019 |
| | | Set up a network system to disseminate information to teachers electronically and through social media. | Delaware Teachers of Science | Dover | Ongoing |
| | | Create environmental repository (open education resource) that would be a platform for formal and non-formal educators to share environmental instructional plans, lessons, activities, professional development opportunities, etc. | VDOE | VA | Dec 2019 |
| | | Compile a concise set of resources on the website (hosted by MD DNR), and link this to Bay Backpack and partners. | Project Green Classrooms | MD | Dec 2018 / ongoing |
| | | Disseminate information through "Teaching Green," Science Matters, SAS Learning Communities, Pennsylvania STEM Coalition, State Systems of Supports Workgroup and other relevant communication channels. | PA DEP | PA | Ongoing |

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| | | Promote and implement the Pennsylvania Environmental Literacy Plan on both the state and mid-Atlantic levels for Environmental Education in Pennsylvania as outlined by the 2014 Chesapeake Bay Watershed Agreement ("CBA") to the extent practicable. | PDE | PA | Ongoing |
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