

Maryland Partnership for Children in Nature

Mark J. Belton, Chair

Secretary, Maryland Department of Natural Resources

Lillian M. Lowery, Ed.D., Chair

State Superintendent of Schools, Maryland State Department of Education

April 22, 2015 – Partnership and Leadership Team Meeting
held at Maryland Department of Natural Resources
580 Taylor Ave, Annapolis, MD 21401 in Conference Room C-1

Agenda

Prelude [optional]:

9:00 – 9:30 **Earth Day/ Environmental Education Month Celebration** –
Meet at the Play N Learn day care center outdoors, adjacent to DNR building entrance.

*DNR Secretary Mark Belton, MSDE Superintendent Lillian Lowery, and U.S. Fish and Wildlife Service-Chesapeake Bay Field Office Supervisor Genevieve LaRouche will provide **brief** comments and plant a small garden for monarch butterflies at the nature play space at Play N Learn, with children from the 4-year-olds class – and photo opp.*

*Read about the **Monarch Joint Venture** at www.monarchjointventure.org.*

Meeting:

9:30 – 10:00 **Welcome, overview** – *Co-Chairs, Mark Belton, DNR and Dr. Lillian Lowery, MSDE*

- Brief description of this morning's Earth Day celebration (planting activity).
- Overview of what we'll do in today's meeting.
- Introductions (all) – each participant quickly state one main thing that they do in their organization that supports CIN priorities (outside of the collaborative CIN work).

10:00 – 10:20 Overarching CIN goals – *Britt Slattery, DNR*
Getting more people (children, students, families) outdoors;
Developing environmentally literate citizens (beginning with our youngest citizens).

*What are the needs we have identified in the past? For students; and for others (e.g., in parks) – **brief brainstorming to serve as a recap.***

We are/ should be addressing these needs through current drivers, as follows. Participants are asked to think about how these pieces align, and what might be missing that we should address – and we will discuss this at the end of the meeting.

10:20 – 10:40 **Chesapeake Bay Agreement** – *Frank Dawson, Deputy Secretary, DNR*
Overview of key goals and management strategies, and how CIN fits in.

10:40 – 11:20 **CIN 2015 Action Plan** – *Britt Slattery / Steering Committee*
Review what is in the plan, and priority actions; and how CIN is helping to achieve the E-Lit (and other) goals of the Chesapeake Bay Agreement – and beyond.

How do these pieces align?

What is missing and how can we address that/ what can CIN do to fill the gaps?

11:20 – 11:40 **Challenges for the Future** – *Mark Belton*
*CIN's recommendations to the State Transition Team: **next steps**.*

11:40 – 11:50 **Wrap up of discussion, recap action items; final remarks.**

11:50 – 12:00 **Announcements – (all)**

12:00 **Adjourn** – next meeting July 23 (changed location - see below) – *THANK YOU for your participation!*

Upcoming 2015 Partnership Meetings – mark your calendar!

The full Partnership meets quarterly, with two meetings per year coinciding with Leadership Team meetings. The Steering Committee meets monthly. Workgroups meet periodically as needed and welcome participation from all interested.

- **July 23** -- Quarterly membership meeting, 10:00am-12:00pm at Brookside Gardens, 1800 Glenallan Ave, Silver Spring, MD 20902. **[note new location]**
- **October 21** -- Quarterly membership and Leadership Team meetings at the Maryland State Department of Education, 200 West Baltimore St., Baltimore, MD 21201 -- exact times (a.m.) tba.
- **2016 meetings will occur in January, April, July and October.**

Upcoming Events:

April

- 22 – Happy Earth Day!
- 22 – QR code trail ribbon cutting @11am, Jug Bay Wetlands Sanctuary www.jugbay.org
- 22 – [U.S. Green Ribbon Schools](#) awards announced
- 30 – [Chesapeake Bay Agreement management strategies](#) public comment period closes – submit comments!

May

- 12-13 – [National Green Schoolyards Summit](#), Chicago, IL
- 16 – [Weather and Climate Day](#) - National Aquarium in Baltimore
- 22 – [Explore and Restore Maryland Streams](#) grant proposals due to DNR.
- 29 – [Maryland Green Schools Youth Summit](#), Sandy Point State Park
- 29-31 – [Green Eggs and Sand Teacher Workshop](#) about horseshoe crabs and coastal ecology, Cape May, NJ

June

- 1 – SustainaFest's [2015 Tiny House Giveaway Essay Contest](#) entry deadline
- 6 – [18th Annual Wade In Festival](#) at Anita C. Leight Estuary Center, Harford County
- [MSDE College and Career Ready Conferences](#):
 - 18-19 at Hagerstown Community College in Washington County
 - 23-24 at Easton High School in Talbot County
 - 25-26 at North Point High School in Charles County
 - 30 - July 1 at Reservoir High School in Howard County
 - *see also July*
- 22-26 – [Teachers on the Estuary: Climate Edition](#), CBNERR-MD, at Anita C Leight Estuary Center, Jug Bay Wetlands Sanctuary, and Patuxent River Park.
- 26 – Great American Campout Day - [Pledge to camp](#)
- 27 – Great American Campout at Patuxent River Park, weekend-long program (CBNERR-MD)

July

- [MSDE College and Career Ready Conferences](#):
 - June 30 - July 1 at Reservoir High School in Howard County
 - July 8-9 at Edgewood High School in Harford County
- 6-10 – [NASA Watershed Science Summer Institute](#), NASA Goddard Space Flight Center
- 6-10 – [Explore the Patuxent Teen Leadership Paddle](#), CBNERR-MD
- 14-16 – [Chesapeake Exploration Training Workshop](#), NOAA
- 22-25 – [Explore the Patuxent Adult Paddle](#), CBNERR-MD
- **23 – Partnership quarterly meeting at Brookside Gardens**
- 27-31 – [Explore the Patuxent Teen Leadership Paddle](#), CBNERR - MD

August

- 3-7 – [Teachers on the Estuary - Data Edition](#), DNR, Chesapeake Bay NERR, at Karen Noonan Center, Bishops Head
- 6 – [NOAA Climate Education Workshop](#) - Silver Spring MD

Environmental Literacy Outcomes

Management Strategy



Introduction

The National Science Foundation's (NSF) Advisory Committee for Environmental Research and Education stated in a 2003 report that in the coming decades, the public will more frequently be called upon to understand complex environmental issues, assess risk, evaluate proposed environmental plans and understand how individual decisions affect the environment at local and global scales. Creating a scientifically informed citizenry requires a concerted, systematic approach to environmental education." But the American public does not have the environmental literacy needed to tackle these challenges. Unfortunately, studies commissioned by the National Environmental Education Foundation (NEEF) find that:

The average American adult, regardless of age, income, or level of education, mostly fails to grasp essential aspects of environmental science, important cause/effect relationships, or even basic concepts such as runoff pollution, power generation and fuel use, or water flow patterns...There is little difference in environmental knowledge levels between the average

American and those who sit on governing bodies, town councils, and in corporate board rooms, and whose decisions often have wider ramifications on the environment.

A clearer picture has also emerged about the environmental literacy of our students. The National Environmental Literacy Assessment, which was completed in 2008 by the North American Association for Environmental Education (NAAEE) and funded by the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA), established a baseline literacy rate for middle school students in 6th and 8th grades. A follow-up study showed that schools that have environmental education programming scored significantly higher on environmental knowledge, verbal commitment, environmental sensitivity, and behaviors than schools without such programming. Building environmental literacy takes time and ongoing commitment. While environmental literacy should be reinforced throughout a child's life experiences, the foundation of knowledge and journey of inquiry is necessarily grounded and takes root in school. This management strategy addresses the Environmental Literacy Goal and its three associated outcomes.

I. Goal, Outcome and Baseline

This management strategy identifies approaches for achieving the following Goal and Outcomes:

Environmental Literacy Goal: Enable every student in the region to graduate with the knowledge and skills to act responsibly to protect and restore their local watershed

Student Outcome: Continually increase students' age-appropriate understanding of the watershed through participation in teacher-supported, meaningful watershed educational experiences and rigorous, inquiry-based instruction, with a target of at least one meaningful watershed educational experience in elementary, middle and high school depending on available resources.

Sustainable Schools Outcome: 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.

Environmental Literacy Planning Outcome: Each participating Bay jurisdiction should develop a comprehensive and systemic approach to environmental literacy for all students in the region that includes policies, practices and voluntary metrics that support the environmental literacy Goals and Outcomes of this Agreement.

Baseline and Current Condition

The Environmental Literacy Goal and Outcomes build on the work begun to advance the Mid Atlantic Elementary and Secondary Environmental Literacy Strategy, which was developed in support of Presidential Executive Order 13508 to protect and restore the Chesapeake Bay. Baselines for each of the outcomes will be established for the 2014-2015 school year using a survey instrument developed for the Chesapeake Bay Program's Education Workgroup by Measurement Incorporated, a professional evaluation firm. The survey looks at local education agency progress and capacity to implement the Environmental Literacy Goal and Outcomes of the Watershed Agreement.

II. Participating Partners

The following partners have participated in the development of this strategy. A workplan to accompany this management strategy will be completed six months after this document is finalized. It will identify specific partner commitments for implementing the strategy.

Chesapeake Bay Watershed Agreement Signatories

- State of Delaware
- District of Columbia
- State of Maryland
- Commonwealth of Pennsylvania
- Commonwealth of Virginia
- Chesapeake Bay Commission
- U.S. Environmental Protection Agency

Other Key Participants

- National Oceanic and Atmospheric Administration (NOAA)
- U.S. Fish and Wildlife Service (USFWS)
- U.S. Geological Survey (USGS)
- National Park Service (NPS)
- U.S. Forest Service (USFS)
- Nongovernmental Organizations (e.g. Chesapeake Bay Foundation, National Wildlife Federation, NAAEE state affiliates)

Local Engagement

While states have the primary responsibility to advance the Chesapeake Bay Program's environmental literacy efforts, this work is done in partnership with local education agencies or school districts. In most watershed jurisdictions, local education agencies are responsible for defining their own curriculums and implementation strategies to support state standards and priorities.

III. Factors Influencing Success

The following are natural and human factors that influence the Chesapeake Bay Program's ability to attain this outcome:

State-level Advocacy for Environmental Literacy

There is a need for a high level support for environmental literacy that flows from administrations or legislatures and is communicated to school systems so there can be a shared vision among stakeholders and state leadership. Organized support from stakeholders for such positions is also important in advancing any state policy initiatives.

Local Education Agency Support for Environmental Literacy

Education in most of the states in the Chesapeake Bay watershed are controlled by local education agencies (600+ in the region), each with their own leadership and management structure. With the exception of state laws and regulations, education priorities are largely determined at the local level and may not mirror state priorities. Meaningful Watershed Educational Experiences (MWEEs) and sustainable school practices are often left out of established accountability mechanisms between state and local education agencies.

Education Reform

This is a time of tremendous change in education for many of the watershed jurisdictions. While national education reform efforts including STEM, Common Core, and Next Generation Science Standards lend themselves to using the environment as an integrating context for learning, the extensive efforts to support and implement the necessary shifts in teaching and learning required by these reforms pose on-going challenges to systemic approaches to environmental education.

Funding to Support Student Experiences and Sustainable School Projects

A major limiting factor is funding, including support for sustainable school initiatives, student projects, teacher professional development, and transportation.

Culture Disconnected from Nature

The Henry J. Kaiser Family Foundation estimates that children aged 8 to 18 spend more than 53 hours a week online or in front of electronic media, which equals around seven-and-a-half hours a day. Richard Louv argues in his 2005 book *Last Child in the Woods* that because children are spending less time outdoors, American children suffer from “nature deficit disorder”—or a disconnect from nature. Budget cuts and testing mandates can result in schools perpetuating the disconnect from nature by limiting recess, scaling back off-site field experiences, and restricting the use of school grounds for teaching. This loss of contact with the outdoors may ultimately lead to a citizenry with no physical and emotional connection to the natural world and no desire to actively take part in protection and restoration efforts.

In addition, the following unique factors will influence sustainable schools:

Decision Making Authority

Many facets of school sustainability (environmental performance, health and wellness, etc.) rest with disparate departments and individuals within a school division or individual school. These different groups are often not coordinated within a jurisdiction.

Underrepresented Stakeholders

Architects, school nurses, building managers, and others who might influence different facets of school sustainability are traditionally underrepresented in discussions about “green” schools.

IV. Current Efforts and Gaps

The federal government plays an important role in advancing environmental education in the region. For instance, the National Oceanic and Atmospheric Administration (NOAA) leads this cooperative effort by fostering federal-state coordination and providing critical funding for the development of model programs in support of the Chesapeake Bay Program’s commitment to environmental literacy. The U.S. Fish and Wildlife Service (USFWS) works with partners to plan and implement habitat projects on school grounds and at environmental education centers. The federal government also provides critical funding to support model programs through the U.S. Environmental Protection Agency’s (EPA) Environmental Education grant program, the NOAA Bay Watershed Education & Training (B-WET) Program, and the NOAA Environmental Literacy Grant Program. Additionally, the National Park Service (NPS) has expanded access to rivers, streams and open spaces for students, teachers and the general public and periodically provides grants to support the use of NPS and partner sites by school groups.

The sustainable schools effort at the Bay Program helps to support the pillars of the U.S. Department of Education Green Ribbon School award program, which recognizes schools and school districts. Departments of Education in individual states may choose to participate in this recognition program by holding a competition within their state in which schools and districts apply addressing the U.S. Green Ribbon School framework. States then nominate the top schools and districts for the award. Since the award began in 2012, each state in the watershed has participated at least one year. Sustainable Schools is an exciting new area of growth for the Bay Program and more work will need to be conducted to better understand the gaps. An Action Team for Sustainable Schools has been established under the Education Workgroup to help guide this work.

Many of the jurisdictions in the region have promoted environmental education for many years. However, over the past several years there has been an effort to renew and strengthen these programs. Delaware, Maryland, Pennsylvania, Virginia, and the District of Columbia have formal efforts underway to establish or implement plans to increase environmental literacy among students. These efforts often take different forms from formal environmental literacy plans to partnerships for children in nature to state strategies to support sustainable schools. In support of the development of these efforts, several states conducted formal needs assessments to help guide the work. Additional examples of recent state commitments to environmental education are as follows:

- Delaware passed a resolution in 2011 supporting the Delaware No Child Left Inside/Children in Nature Initiative. A taskforce with representatives from the Delaware Department of Natural Resources and Environmental Control, Department of Education, and other public and nongovernmental organizations was formed “to develop a statewide plan to increase opportunities for children to engage in nature, both in school, at home, and on public lands.”
- In 2010, the Council of the District of Columbia signed into law the Healthy Schools Act of 2010. This act requires the District Department of the Environment (DDOE) to draft an environmental literacy plan as part of a broad effort to “substantially improve the health, wellness, and nutrition of the public and charter school students in the District of Columbia.” The District’s Sustainable DC Plan set the goal of ensuring that all school-age children in the District are educated in sustainability and prepared for a changing green economy, with the target of teaching at least 50 percent of children in the District about sustainability concepts by 2032. The Sustainable DC Omnibus Act of 2014 formally adopted the District’s environmental literacy plan and mandated the creation of an Environmental Literacy Program within the Office of the State Superintendent of Education (OSSE).
- Maryland has had an education by-law for multidisciplinary environmental education in place since 1989. In 2011, Maryland passed the nation’s first environmental literacy graduation requirement mandating schools to implement a multidisciplinary environmental education program, with a specific focus on the state’s natural resources. This codified the Environmental Literacy standards developed by the Maryland Partnership for Children in Nature, a body established in 2008 by a gubernatorial Executive Order and co-chaired by the Maryland State Department of Education and the Department of Natural Resources. In addition, Environmental Science is part of Maryland's science curriculum and is assessed on the Science MSA in Grades 5 and 8. Maryland has also expressed a desire to have all schools certified as Maryland Green

Schools through the Maryland Association for Environmental and Outdoor Education. Maryland conducted a needs assessment in 2012 to help better understand and address gaps to implementation.

- The Pennsylvania Advisory Council on Environmental Education adopted an environmental literacy plan in 2012. Pennsylvania has long had rigorous, stand-alone environment and ecology standards, which include content about the Chesapeake, watersheds, and the environment. This content is included in standardized tests in the state. The state also has a new sustainable school effort bringing together partners from around the state to transform their schools.
- The Virginia Standards of Learning were originally adopted in 1995, and were revised in 2003 and again in 2010. The standards integrate environmental literacy concepts from kindergarten through 12th grade. School divisions in Virginia are responsible for implementing the standards. The Virginia Resource-Use Education Council is a voluntary, non-profit, educational organization whose membership includes Virginia's state and federal natural resource agencies, Virginia's education agencies, selected state colleges and universities, and selected non-profit organizations from around the state. The purpose of the VRUEC is to promote and facilitate environmental literacy and natural resource stewardship through education, and it is a vital partner with the Virginia Department of Education in advancing environmental literacy for the K-12 community in the Commonwealth of Virginia. Measurable goals for specific environmental projects—Meaningful Watershed Experiences, Classroom Grants, Professional Development and School Recognitions—are currently outlined in the Commonwealth's Business Plan for Environmental Education.

In addition, nonprofit providers are often the primary organizations advocating for and supporting these efforts in schools. National, regional, state, and local nonprofits support the environmental literacy outcomes by partnering with school systems to plan for environmental literacy programs, provide student Meaningful Watershed Educational Experiences (MWEEs), and offer professional development opportunities for teachers. These organizations also provide valuable tools for student data collection on school grounds and in the field, such as the National Geographic FieldScope project. Nonprofits are also often the organizations that provide certifications for sustainable schools efforts, which include the National Wildlife Federation EcoSchools Program and the MAEOE Green School certification. Without these important partners, the environmental literacy outcomes under this agreement could not be reached.

Actions, Tools and Support to Empower Local Government and Others

Ultimately, educating students is a local endeavor with the work and the accountability at the school system and even the school building level. For this reason, the more than 500 local education agencies in the region are extremely important partners in this work. The results of a 2014-2015 survey will help the states and Chesapeake Bay Program to better understand the current status of local environmental literacy efforts across the watershed, including the geographic distribution of Meaningful Watershed Educational Experience (MWEE) and sustainable school implementation by local education agencies. This will inform the priorities of the Workgroup and revisions to the management strategy.

V. Management Approaches

The Chesapeake Bay Program will work together to carry out the following actions and strategies to achieve the Environmental Literacy Goal and Outcomes. These approaches seek to address the factors affecting our ability to meet the goal and the gaps identified above. Work will be coordinated through the Education Workgroup of the Chesapeake Bay Program, which provides a forum for cross-jurisdictional coordination and support on all aspects of environmental education. For Sustainable Schools, a team has formed working under the auspices of the Education Workgroup to engage a broader group of stakeholders, explore areas of regional collaboration, and identify specific actions the Bay Program can take to achieve this outcome. The team is led by staff from the National Oceanic and Atmospheric Administration (NOAA), the U.S. Environmental Protection Agency (EPA), and the University of Maryland Environmental Finance Center. It includes individuals from state agencies, local education agencies, and non-profit organizations. These groups will work towards shared priorities as follows:

Students:

- S1: Promote sustained professional development related to scientific inquiry; the science of the environment; sustainability and natural-resources education; rigorous, outdoor learning strategies; and pedagogy to improve student learning and citizenship about the environment
- S2: Promote, develop, and implement Meaningful Watershed Educational Experiences (MWEEs) with educators, local education agencies, school administrators, and third party providers **
- S3: Communicate information about educational resources and funding opportunities to support the development and implementation of rigorous, inquiry-based instruction and MWEE programs **
- S4: Support networks of environmental education providers, including professional-development opportunities on research-based practices and up-to-date scientific and environmental information
- S5: Work with state and local education and natural resource agencies to ensure that rigorous science and environment-related content is effectively represented in the Standards of Learning and the Curriculum Frameworks, and that agency and provider educational-support materials are fully aligned with the intent of the standards**
- S6: Develop and promote student opportunities to pursue out of school leadership and enrichment programs that support in-depth understanding of environmental issues and solutions**
- S7: Support programs that provide authentic experiences to support STEM, Next Generation Science Standards or other rigorous science standards, and related disciplines to improve career and college readiness**

Sustainable Schools:

- SS1: Promote and strengthen “sustainable school” certification and recognition programs consistent with high-quality, objective, and agreed-upon criteria such as the U.S. Department of Education Green Ribbon School program
- SS2: Broaden stakeholder engagement to include focus on health, including health and nutrition, indoor air quality, chemicals, pest management, and other issues that might adversely affect health at schools**

- SS3: Promote, develop, and/or disseminate needs assessments, training, technical resources, and promotional materials for “sustainable school” stakeholders
- SS4: Identify and promote the use of best management practices at school sites related to watershed and habitat restoration, energy conservation, waste management, and overall environmental protection**

Environmental Literacy Planning

- ELP1: Identify and advocate for the local and state resources (policy, programs, and staffing) necessary for all graduates to achieve science, citizenship, and environmental literacy
- ELP2: Support the development and implementation of clearly-defined, attainable objectives necessary for all students to achieve science, citizenship, and environmental literacy by graduation
- ELP3: Promote the implementation of the Environmental Literacy Indicator Tool (ELIT) and related data visualization tools to assess progress towards student science, citizenship, and environmental literacy**
- ELP4: Disseminate information to formal and informal education stakeholders on the policies, programs, and practices that promote science, citizenship, and environmental literacy
- ELP5: Maintain an up-to-date suite of definitions and best practices documents for regional practitioners, funders, and administrators to inform program development and funding following research-based best practices
- ELP6: Maintain the Chesapeake Bay Program Education Workgroup and related state workgroups that include state department of education participation to oversee implementation of the Environmental Literacy Management Strategy
- ELP7: Ensure the implementation of Environmental Literacy outcomes include a focus on diverse and underserved students with an emphasis on career and college readiness and STEM

Cross Outcome Collaboration and Multiple Benefits

Future work for this management strategy will include coordination with all related goals and outcomes, including Water Quality, Public Access, Citizen Stewardship, and Diversity. The resulting work will be captured in action plans and/or a revision to the management strategy.

** Approaches Targeted to Local Participation

VI. Monitoring Progress

The Education Workgroup worked with a professional evaluator and state partners to establish meaningful environmental literacy metrics and a survey instrument to collect this data. The resulting Environmental Literacy Indicator Tool (ELIT) was piloted in the summer of 2014 and will be administered fully following the 2014-2015 school year. The tool is designed to be used with local education agencies. State departments of education are the lead for distributing and certifying the data collected through ELIT.

VII. Assessing Progress

The Chesapeake Bay Program will maintain the Environmental Literacy Indicator Tool and collate and report data. The survey will be administered every two to three years through the state departments of education. In FY 2014, funding from the Bay Program augmented by NOAA B-WET funding will be

available provide technical assistance to states to develop strategies to collect voluntary data from local education agencies to feed into the new Bay Program environmental literacy metrics and to support the work of a professional evaluator to review the data and establish meaningful baselines. Additional resources may be needed to continue these activities after FY 2014. The state of Maryland has a requirement for local education agencies to report on the status of its environmental literacy programs and graduation requirement every 5 years. The Bay Program has worked with the Maryland State Department of Education to use ELIT to collect this information in order to increase efficiency of the data collection.

VIII. Adaptively Managing

The Leadership Team of the Education Workgroup, which includes federal representatives from the National Oceanic and Atmospheric Administration (NOAA), the U.S. Fish and Wildlife Service (USFWS), the National Aeronautics and Space Administration (NASA), and the National Park Service (NPS) along with two representatives per state (generally from the state departments of education and lead natural resource agencies), convenes monthly to discuss priorities and progress towards meeting the Environmental Literacy Goals and Outcomes. The full Education Workgroup, which includes broader representation from federal agencies, state agencies, nonprofits, local education agencies, and others, meets twice a year.

The group holds an Environmental Literacy Summit every two years around specific issues or priorities. For example, in 2013 the Summit focused on increasing the integration of STEM, Social Studies, and Environmental Literacy. The Summits bring in outside experts and constituents around these issues to advance the policy work. At the 2015 Summit, the group plans to re-evaluate the outcomes based on what we learned in the first round of the ELIT survey. Moving forward, these Summits will serve as good opportunities to re-assess where the group is in achieving the outcomes of the agreement and adjusting strategies as appropriate.

IX. Biennial Workplan

Biennial workplans for each management strategy will be developed by December 2015. It will include the following information:

- Each key action
- Timeline for the action
- Expected outcome
- Partners responsible for each action
- Estimated resources

Governor Martin O'Malley's
Maryland Partnership for Children in Nature

Joseph P. Gill, Chair
Secretary, Maryland Department of Natural Resources

Lillian M. Lowery, Ed.D., Chair
State Superintendent of Schools, Maryland State Department of Education

Memorandum

Date: December 16, 2014

From: Frank Dawson, Deputy Secretary, DNR, on behalf of the Maryland Partnership for Children In Nature

To: Co-Chairs, Maryland Partnership for Children In Nature:
Joseph P. Gill, Secretary, Maryland DNR; and
Lillian M. Lowery, Superintendent of Schools, Maryland State Department of Education

Re: Environmental Literacy Recommendations

I am sending this memorandum at the request and on behalf of the Maryland Partnership for Children In Nature – a statewide coalition involving 16 state, federal, and county agencies, school system representatives, and non-government organizations created to support State environmental literacy efforts by evaluating and providing recommendations on existing state programs, facilitating effective public-private collaborations, and implementing initiatives to overcome barriers to successful implementation. The memorandum recounts the background of the Partnership and memorializes the next steps that we have discussed with each of you for purposes of transitioning the Partnership's work to the incoming Administration of Governor-elect Larry Hogan.

Providing connections to nature for our youngest citizens is a wise investment in their future and that of our state. Numerous studies show that spending time in the outdoors and/or viewing nature has wide-ranging health and societal benefits, as it improves motor skills and promotes healthy activity; increases student achievement in science, mathematics, and English/Language Arts; increases self-discipline and leads to better life choices; and addresses a host of health problems such as ADHD, diabetes, obesity, asthma, heart conditions, stress, and sleep problems; and teaches life skills. Children with regular access to the outdoors have better skills in problem-solving, critical thinking, and conflict resolution – all important for real-world achievement, career readiness and innovation. Therefore, providing connections to the outdoors also benefits our economic health by reducing costs for health care and law enforcement/correctional services, and prepares our young people for 21st Century careers. Exposure to the outdoors and to new recreational activities, expanding a child's view of the world and opportunities available, can open doors to new career and life choices, benefiting the individual and potentially increasing workforce diversity in science and related fields.

We can and have accommodated these needs by working in two key areas: through our formal education system and its many partners, and through community planning and programs.

Maryland has a very long history of establishing and successfully implementing a variety of initiatives that have served to advance the environmental education of students in grades pre-K through 12. Maryland stands in the region and the Nation as a leader and an exemplar of achievement in this area, with a statewide Environmental Literacy Program that is well underway and growing:

- Maryland's bold action to greatly increase outdoor learning experiences for the state's youth and to elevate the role of environmental education resulted in adopting a statewide Environmental Literacy Graduation Requirement – the country's first. By spring 2015, the first milestone will be reached: certification that programs are in place in every school system.
- 20% of Maryland's schools have been awarded Green School status to date for their comprehensive best practices and student actions. The Maryland Green School program is one of the oldest, most rigorous and successful state programs in the nation.

- Schools are implementing STEM learning (Science, Technology, Engineering and Mathematics) throughout the curriculum; STEM and the newly adopted Next Generation Science Standards are proving a good fit for statewide progressive multidisciplinary integration of environmental literacy, all in support of Maryland College and Career Readiness standards.
- Maryland has begun to develop its management strategies to help achieve all of the environmental literacy outcomes outlined in the new 2014 Chesapeake Bay Watershed Agreement (Bay Agreement). A large network of formal educators and non-formal environmental education providers are working together to support these and other initiatives, raising the rigor and frequency of student outdoor learning experiences, providing increased opportunities for professional learning, and engaging school communities in practices toward healthy and sustainable schools.
- Public lands throughout the state, whether Maryland State Parks or other designated Natural Areas, or local/county/municipal parks, provide places to go to experience natural resources first hand. Staff at these facilities are partnering with schools to increase meaningful outdoor environmental education experiences for students at the parks, to help schools meet their environmental literacy and other curricular requirements. And both state and local agencies are prioritizing ways to provide, manage, and preserve more natural areas at their facilities.

Yet even with such laudable achievements, there are still barriers to the full realization of the State's long term vision for its citizens of all ages, and to fulfillment of the Environmental Literacy goals and outcomes committed to under the Bay Agreement. These barriers can be overcome through policy, budgetary and operations decisions as recommended below by the Maryland Partnership for Children In Nature ("the Partnership").

A critical component of environmental literacy programs, and one which the Partnership emphasizes, involves connecting students to nature for hands-on, meaningful outdoor learning experiences. Maryland has traditionally done well in this area, though more efforts are needed, as all new mandates call for increases to serve every student. To make a significant impact on providing students with effective outdoor experiences will require an enhanced level of cooperation and interaction among traditionally disparate entities. Innovative partnerships among agencies at the State, local, and even Federal levels will need to bring to bear resources that exist but which need to be reallocated and/or redirected to support educational initiatives while also meeting agency goals. This presents an opportunity to work cabinet to cabinet to develop creative solutions (e.g., transportation working with education and environment) that will improve efficiencies and combine fiscal and staff resources for improved outcomes. Solutions for high achievement toward environmental literacy, just like every aspect of life, require crosscutting strategies and involvement of a variety of disciplines.

The Partnership's work has highlighted gaps or needs commonly faced by schools and communities that must be filled in order to better reach the intended outcomes statewide. Areas of focus noted here are in support of school environmental literacy and other education requirements, and helps meet the specific environmental literacy outcomes of the [2014 Chesapeake Bay Watershed Agreement](#). In addition, the Partnership is responsible for addressing ways to connect children and families to nature in their communities, further contributing to developing environmentally literate citizens and improving quality of life. Because schools and school grounds are considered a community resource, these efforts can be considered contiguous and complementary. Solutions may include filling funding gaps as well as changing policy or practices.

Recommendations / Priorities –

- **Increase transportation for students to experience natural areas away from school grounds:** Many schools do not have adequate opportunities onsite to provide meaningful outdoor environmental investigations; and a visit to a truly natural setting has additional benefits. Most schools have locations within close proximity to provide these experiences, though transportation is required. Lack of funding and administrative support for off-site outdoor experiences is commonly reported as a pronounced gap in implementing environmental literacy programs. In order to take advantage of these opportunities, additional means for transportation, primarily funding, needs to be made available (or redirected from existing sources) in addition to changing school policies to allow and support off-campus field experiences. This in turn must be supported with teacher professional development to lead field experiences and/or support them instructionally.
- **Increase opportunities for students to engage in outdoor environmental investigations on or near school grounds:** This contributes to the overall goal of achieving sustainable schools, including the building, grounds, and daily habits among the school community. Expanding opportunities on school grounds for students to engage in

outdoor environmental investigations will both increase the frequency of outdoor learning and alleviate some of the cost of offsite transportation. In urban settings where green space is limited, this is a particular benefit as well as a challenge; though it is needed in all settings. This can be accomplished by reconfiguring school grounds to include natural features as outdoor study areas, and incorporating the design process and use of these areas into student instruction. A necessary and beneficial component of providing these areas involves establishing partnerships with natural resources professionals, departments of public works, and others, to engage students in design, installation, and use of on-the-ground projects on or near school grounds. Examples may include stormwater facilities, wetlands, or reforestation areas – serving student learning needs as well as fulfilling environmental management or remediation requirements. In addition, best success in instruction has been achieved when schools connect the outdoors to the practices used indoors. Modeling sustainable practices at school teaches personal responsibility for conserving our resources that can be continued at home, and provides proven ways to save money and improve efficiency in our schools. As with the above, this effort should be supported and complemented by teacher professional development.

- **Enhance professional development of teachers to support environmental literacy initiatives:** Because many of our teachers have not been prepared to conduct lessons on environmental topics or in an outdoor setting, there is a need to provide, enhance and/or increase available opportunities for professional learning for in-service teachers. Funding and administrative support is needed to provide professional development sessions (including to support staff from partner entities to conduct them), release time for classroom teachers, substitute teachers and/or summer stipends. A portion of this need is met through school budgets and outside grants, though more could be earmarked for environmental programs, and could be implemented over multiple years. To improve teacher preparation (future teachers earning degrees in education) in these areas, a collaborative, integrated effort is needed to incorporate environmental learning into teacher pre-service programs at institutions of higher education.
- **Provide access to green space -- safely walkable from home or school -- for every child in every community:** Focus more resources and attention on providing access to green space for all – positioning greenscapes as a more essential infrastructure component, as with roads and utilities. Nature is valuable to human well-being and quality of life, in particular to early childhood/ child development, and nature experiences are conducive to learning on a variety of levels. Innovative, progressive, collective means are needed to support acquiring, developing or enhancing green spaces, including in urban areas that will serve the surrounding community. Green space is defined as / includes areas for free play, trails, natural areas, natural features, nature play spaces (alternative playgrounds using natural materials); and could include schoolyards and community vegetable and flower/native plant gardens. Access is intended as unobstructed ability to safely reach and use a park or other green space, equally available within all communities. Where parks and recreation facilities exist, natural features can be emphasized more, and use of facilities expanded for teacher professional development and outdoor educational experiences for students, as well as for enhanced after school and summer programs for youth and families. These programs would contribute to a healthy sense of community for its residents.

The Partnership for Children In Nature has been working to identify possible specific policy and funding solutions for these priorities, and we look forward to collaborating with new leadership at the state level to determine feasible strategies. We encourage continued support of the Partnership, perhaps renewing under a new Executive Order and considering elevating its role to one with a higher level presence in the Governor's Office. The strength of the Partnership lies in its collective experience and the diversity of entities involved, including non-government organizations with added value toward efficiently advancing our efforts. We plan to further increase and expand innovative partnerships in pursuit of advancing these priorities, identifying shared goals as well as policy mechanisms and opportunities to connect partners. We will advocate for efficient use of funding that can accomplish multiple outcomes, potentially recommending redirecting funds from sources with shared outcomes, for example, supporting schoolyard greening and providing incentives for projects via the school construction program; engaging state transportation funding to support student transportation for field experiences; or tapping stormwater programs as a source to fund and implement on-the-ground projects engaging students, that will also create readily available outdoor learning areas for future instructional use while serving environmental goals.

Further, because Maryland is well-established as a model for successful environmental education as well as for collaboration among government and non-government entities, we would encourage state leaders to take an intentional regional leadership role in this area. This may assist us in leveraging additional resources to further advance our goals. The Chesapeake Bay Program is a ready arena for this. The Partnership has played and will continue to play a key role in developing and implementing required management strategies to achieve the Bay Agreement's outcomes. To ensure

improved implementation Bay-wide, we recommend bringing leadership level participants into the ‘conversation’ from education agencies/authorities in the other jurisdictions in the watershed (Bay Agreement signatories). Chesapeake Bay Program work currently has staff level participation in education, but would benefit from involving higher level decision makers with the authority to implement change. Maryland, serving as a leader, could convene a regional meeting of leadership, with high level education representatives from Bay jurisdictions. Mirroring this elevation of education leaders at the state level, an additional suggestion is to add the State Superintendent of Schools to the Bay Cabinet. These efforts will serve to further align Maryland priorities with those of its Federal Government partners who have “connecting people with nature” among their priority goals.

The Maryland Partnership for Children In Nature encourages you to offer these ideas to the new Administration in your documents and communications. We would welcome the opportunity to brief Governor’s Office staff on our goals and actions, to establish new priorities for 2015 and beyond, and to work together to identify innovative and creative solutions in these areas.

Maryland Partnership for Children In Nature 2015 Action Plan

Background/ Purpose:

The Maryland Partnership for Children In Nature (the Partnership, or CIN) was established by Executive Order in 2008 to develop a vision and recommendations for connecting children and communities to nature. The Partnership works to promote outdoor experiential activities and environmental education for Maryland's youth and their families through a coalition of agencies and organizations focused on providing ongoing support for these efforts.

Maryland is continually enhancing its efforts to ensure that its children grow to become informed and responsible stewards of the environment, prepared for future environmental challenges and opportunities as individual citizens and as members of the workforce.

Partnership work supports the development and implementation of environmental literacy programs in schools, aiding achievement toward state education standards and requirements, and helping to meet the Environmental Literacy outcomes of the 2014 Chesapeake Bay Watershed Agreement. The Partnership provides a means for public and private entities to work together toward solutions in this arena, and serves as a convener and incubator to help align, coordinate and advance the individual initiatives of the various partners that support the priorities of the group as a whole. Actions of the Partnership may include tasks such as convening conversations to identify needs and solutions to advance stated priorities; making recommendations to help shape policy and practices among stakeholders; representing Maryland's environmental literacy interests in statewide, regional, and national professional arenas; facilitating collaboration among interest groups; and developing planning documents to outline how partners will achieve commitments under the Bay Agreement.

The Partnership also focuses its work on promoting and supporting outdoor time for children and families, to connect with, recreate in and learn about nature; with the ultimate aim of developing children's sense of wonder and fostering citizens' passion for, and understanding and stewardship of natural resources.

Action Plan:

A course of action established in prior years has evolved from a basic organization around four main focus areas:

- (1) communities and community planning, including access to nature;
- (2) health connections (now integrated with community initiatives, and the related agriculture piece is now embedded within community and environmental literacy initiatives);
- (3) supporting environmental literacy in schools and the community; and
- (4) promoting outdoor play and learning (outreach and communications; overarching initiatives).

The intention for each of these areas is described below in *italics*. To continue with ongoing efforts to increase outdoor learning and recreational experiences for Maryland's youth, both in schools and in the community, the Maryland Partnership for Children In Nature plans key actions for 2015, along with any additional actions necessary to support these initiatives and partner efforts [to follow]:

Communities, Planning, and Access to Nature

Enhance equitable access to nature and other outdoor opportunities by incorporating green space as a factor in state and local planning policy and guidance, including recommendations on access issues, nature play spaces and providing natural areas for outdoor play and learning. Elevate the issue of access to nearby nature as a critical part of developing sustainable communities. Promote Nature Play Spaces as alternatives to traditional playgrounds using natural materials and designs that mirror more natural settings, to provide some exposure to nature and associated benefits to child development, within the more built environment. Promote healthy Maryland children through exploring and promoting means to engage communities in health-focused initiatives that increase physical fitness through nature based recreational activities; and by connecting communities to opportunities to grow their own food and/or access locally grown foods.

- Park Equity and Access to Nature –
 - Facilitate use of the Park Equity Analysis (PEA) tool to assist decisions on park/green space planning and protection.
 - Complete 2015 Update of Analysis to include trail heads, updated data and new model protocol.
 - Conduct outreach/ workshops to local parks and planning staff for use of PEA in local Land Preservation and Recreation Planning efforts.
 - Complete local demonstration project with Prince Georges County using park equity data for incorporation into green infrastructure planning.
 - Develop policy and planning recommendations that will address gaps and challenges in access issues, to provide more opportunities to more children in more communities.
 - Evaluate access to green space and parks in both revitalization and new development scenarios. Identify barriers, practices and benefits to green spaces as community development tools (e.g., adopt-a-lot programs, green space set aside requirements, climate resiliency benefits, economics of green space).
 - Proactively promote the above recommendations with specific audiences who are positioned to effect change.
 - Meet with partners and ongoing coalitions to share message and seek feedback on barriers and best practices (e.g., Community Development Corporations, planning directors, economic development officials, etc.).
 - Host a green space and community development forum to highlight local and national examples of increased access to nearby nature and community development.
 - Seek stakeholder input regarding children’s health connections, diversity and inclusion, and increasing interest in and opportunities for utilizing parks and other natural areas for outdoor learning, discovery, and recreation. Use this input to identify actions to ensue. *[combine this activity with the career-focused action, described below]*
- Nature Play Spaces –
 - Lead ongoing promotion activities through presentations to groups, growing the website resources, and connecting partners who can develop demonstration projects.
 - Host a third annual workshop for educators, planners, parks personnel, landscape designers, etc.; explore the possibility of coordinating with a related conference in future years.
 - Promote the use of the Land Preservation and Recreation Plan (state and county counterparts) – and the recommendations developed by the Partnership within it – to guide inclusion of nature play spaces and other outdoor nature areas in park facilities.

Support for Environmental Literacy

These initiatives focus primarily on working with schools, preK-20, and non-formal environmental education partners; with consideration for linking environmental learning to activities outside of school (through after school programs and community resources). The main objective is to assist and support Local Education Agencies (LEAs) in the development and improvement of their Environmental Literacy Programs (ELP) and implementation of Meaningful Watershed Educational Experiences (MWEE). This includes fostering collaboration and connecting school systems with nonformal environmental education (EE) providers, and preparing teachers to provide field experiences for students.

This work also supports the following Chesapeake Bay Agreement Environmental Literacy Outcome:

Continually increase students' age-appropriate understanding of the watershed through participation in teacher-supported, meaningful watershed educational experiences and rigorous, inquiry-based instruction, with a target of at least one meaningful watershed educational experience in elementary, middle and high school depending on available resources.

- Increase **student** participation (in terms of quantity and social diversity) in environmental learning, including outdoor environmental experiences through school, and opportunities for additional enrichment, that improves career and college readiness and leads to STEM careers –
 - Identify, promote and help advance policies, resources, and partnerships that support rigorous student learning experiences outdoors (MWEEs).
 - Research and promote an environmental careers “pipeline” that increases awareness of environmental and STEM careers, strives for greater inclusion of students from diverse backgrounds, and enables more students to successfully pursue career fields in natural resources. Identify tools and services needed, potential audiences, and partners who can help provide and use these resources to guide students. *[see also forum activity, below]*
- Increase the ability of **teachers** to provide sustained environmental learning for their students, including meaningful outdoor experiences:
 - Assist and support Local Education Agencies (LEAs), schools, and educators with environmental literacy implementation and integration of new practices and standards (MWEEs, STEM, NGSS, etc. *) via promotion, support, and outreach –
 - * *Science, Technology, Engineering, and Mathematics; and Next Generation Science Standards.*
 - Continue to connect and support formal and nonformal educators through briefings, professional learning opportunities, professional learning communities, regional meetings, etc. –
 - Provide sessions demonstrating examples of integrated E-Lit/STEM/NGSS at the summer 2015 MSDE College and Career Readiness conferences.
 - Connect formal and nonformal educators through professional development opportunities supported by Chesapeake Bay Program grant to Maryland.
 - Help identify and distribute good models of the integration of E-Lit with STEM/NGSS lessons.
 - Agriculture and Food Connections: Continue integrating agriculture education into schools and nonformal education venues (through farm-based educators and other resources) as a component of environmental literacy, such as: edible garden inclusion in elementary curricula, field trips to farms, career and technology education (CTE) courses in Environmental Horticulture and other appropriate courses. Support school garden and greenhouse initiatives as a potential community resource.
 - Contribute to development of the state action plan to achieve Environmental Literacy management strategies set forth under the 2014 Chesapeake Bay Watershed Agreement, and take on responsibility for implementation of appropriate actions. These actions support outcomes focused on Students (student learning and teacher professional development), Sustainable Schools, and Environmental Literacy Planning and tracking progress.
 - Continue to work with MSDE to develop the 3-year E-Lit implementation Plan; and align it with CIN annual action plans and Chesapeake Bay Watershed Agreement management strategies, to promote efficiency and effective achievement of all of these plans.

- Enhance environmental learning for students and professional learning for teachers, through assisting and supporting **nonformal** educators in developing programs that are based on, align with and use current practices and formal education requirements (MWEEs, STEM, NGSS, etc.) to best meet schools' needs.
 - Continue to connect and support formal and nonformal educators through briefings, professional learning opportunities, professional learning communities, regional meetings, etc. – provide opportunities for nonformal educators to become more familiar with new standards and practices, and what teachers are looking for in field experiences and other enrichment programs.
- Continue working with Institutions of Higher Education (IHE) to enhance teacher pre-service education to prepare teachers to include instructional strategies for Maryland's Environmental Literacy Standards. This will involve use of the outdoors as a classroom and engaging students in investigative learning. Pursue possible collaboration with University System of Maryland on providing environmental literacy teaching/learning experiences to pre-service and certificated teachers:
 - Focus 2015 on embedded experiences for elementary pre-service teachers to learn the content and pedagogy for teaching the Maryland environmental literacy standards through the Next Generation Science Standards.
 - Develop grant-funded pilot – interested collaborators include Notre Dame of MD, Mount St. Mary's, Loyola, and Salisbury (to date).

➤ Promote and support sustainable schools initiatives –

This work also supports the following Chesapeake Bay Agreement Environmental Literacy Outcome:

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.

- Collaborate with school system wellness councils, PTSAs, and similar entities to embed environmental priorities into their actions [for example, promote more bike racks, walking school buses, outdoor play, etc.]
- Work with MSDE to develop a statewide Sustainable Schools strategy, involving facilities and instructional staff in the process –
 - Establish a process for expressing support for and distributing information, guidance and resources regarding the inclusion of defined outdoor study areas in building new construction and renovation plans. Use/ feature/ promote the *Maryland School Grounds for Learning* project resources through various means.
 - Plan and host meeting(s) involving school facilities staff and E-Lit points of contact to discuss models for instruction and facilities collaboration.
 - Identify funding needs and explore potential funding sources such as grant programs and budget requests, to support outdoor study areas on school grounds .
 - Ensure that MSDE E-Lit Implementation Plan and Chesapeake Bay Agreement strategies include and align with these facilities considerations.
- *Maryland School Grounds for Learning* project through MAEOE – support, promote and assist development and distribution.
 - Online Resources: Partners will be asked to collaborate as we build comprehensive online resources to help school communities plan, utilize and sustain a variety of environmental projects on school grounds.
 - Professional Development: CIN partners will help to promote training offered to teachers, administrators and facilities personnel to encourage school-wide collaboration to effectively design, enhance and use the school grounds with students to learn about the environment and conserve natural resources. Online and in-person training will be available.

Outreach and Communications

This also encompasses organizing overarching and cross-cutting activities that support and advance Partnership priorities. Develop enhanced communications among the Partnership members to facilitate and advance our work, and to promote initiatives to a wider audience – such as using social media and other outlets, and better coordinating outreach efforts among partners. Explore and pursue opportunities for unique approaches to potentially increasing available funding and policy and/or operational support for priorities identified by the Partnership.

Overarching or cross-cutting activities –

- Intentionally invite additional stakeholders/ potential new partners to participate in all of the above (workgroups, individual initiatives, etc.).
- Serve as lead entity for coordinating and reporting on activities in support of E-Lit goal and outcomes of the Chesapeake Bay Watershed Agreement.
- Follow up from Transition Recommendations – designate a small group to identify specific funding, policy, and operations suggestions to implement the ideas outlined to support the four recommendations* – and use these as the basis for discussions among decision-makers.
 - [* Recommendations include: (1) Increase transportation for students to experience natural areas away from school grounds; (2) Increase opportunities for students to engage in outdoor environmental investigations on or near school grounds; (3) Enhance professional development of teachers to support environmental literacy initiatives; and (4) Provide access to green space – safely walkable from home or school – for every child in every community.]
- Seek stakeholder input regarding children’s health connections, diversity and inclusion, and STEM/environmental careers – convene appropriate group(s) to discuss needs and solutions (possibly one session with two strands, or two separate events) –
 - Convene a gathering of stakeholders, including community leaders, to discuss and seek innovative solutions to increasing interest and opportunities among diverse groups in utilizing parks and other natural areas for outdoor learning, discovery, and recreation that also serves to improve personal health. Use this event to identify actions to ensue. *[this supports suggested action under Communities]*
 - Host a forum to address means to enhance interest and success in pursuing environmental careers, including among diverse students – involving and connecting community leaders, school guidance counselors, internship programs (CCC, CJC, MCC, LEAF, Coastal Stewards, etc.), and Institutions of Higher Education. Identify gaps, needs, opportunities for coordination/ collaboration, and develop recommendations for action. *[this supports the careers pipeline action under Environmental Literacy]*

Promoting Outdoor Play & Learning –

- Engage in outreach to continue to inform and promote audiences about our priorities, connect to good research and other resources, and coordinate with larger (e.g., Federal) initiatives. *Examples may include:*
 - Include a section on the CIN website for research and information to support CIN priorities, populated with links from partners and others.
 - Prepare and make available resources, recommendations, and exciting examples for promoting and enhancing use of parks for bilingual, physically challenged, and other special audiences.
 - Leverage momentum from and help promote appropriate Federal initiatives, at the state level, to build support and create incentives to get kids in local and state parks:
 - the President’s [Let’s Get Every Kid In a Park](#) campaign – prepare information on National Parks in Maryland that qualify for the funding/ discount and promote visitation; clarify and distribute information on how MD schools can participate.
 - the U.S. Forest Service’s [Discover the Forest](#) campaign pieces, National Recreation and Parks Association efforts (e.g., [Meet me at the Park](#)), and similar.

Ongoing activities –

- Continue to promote professional development opportunities through simple communication means.
- Foster and facilitate information exchange, networking, and collaboration among educators and other related interests statewide.
- Participate in and help promote the Annual Maryland Green Schools Youth Summit.
- Continue promoting/supporting statewide initiatives that provide broad and far-reaching resources for the field of environmental education (e.g., MADE CLEAR [climate change education], Bay Backpack, MD Green Schools Program, etc.).