



Larry Hogan, Governor
Boyd Rutherford, Lt. Governor
Jeannie Haddaway-Riccio, Secretary
Charles Glass, Deputy Secretary

May 26, 2020

The Honorable Larry Hogan
State House, 100 State Circle
Annapolis, MD 21401

Re: Submission of Maryland Project Green Classrooms Initiative
Agency: Maryland Department of Natural Resources
Report Authority: Executive Order 01.01.2017.12 E (6), MSAR 11837

Dear Governor Hogan:

In accordance with Executive Order 01.01.2017.12 E (6), MSAR 11837 the Maryland Department of Natural Resources hereby submits the attached report regarding the annual progress report and recommendations for the project green classrooms initiative.

If you would like any additional information or should you have any questions regarding this report, please feel free to contact me or James W. McKittrick, DNR's Legislative Director, at 410-260-8112 or via email sent to at jamesw.mckittrick@maryland.gov.

Sincerely,

Jeannie Haddaway-Riccio
Secretary

Attachment

cc: Sarah Albert (5 copies)

Maryland Project Green Classrooms Initiative Annual Progress Report and Recommendations – January 2020

The statewide Project Green Classrooms (PGC) initiative was established in June 2017 by Governor Larry Hogan's [Executive Order 01.01.2017.12](#). The executive order directs the Maryland Department of Natural Resources (DNR) to provide an annual report to discuss PGC's activities and make recommendations to advance the priorities of the initiative.

BACKGROUND

The executive order identified a coalition of government agencies and nonprofit partners to ensure that Maryland's youth experience, understand, and learn to conserve the natural environment. The initiative was established to promote outdoor activities and environmental education in schools, communities and on public lands to benefit Maryland's young people. The membership is more diverse and robust than previous efforts, presenting new and exciting opportunities to work more effectively across state government and with our public and private sector partners.

Responsibilities

The following initiatives' responsibilities are specified in the executive order:

- Recommend and facilitate statewide actions needed to meet established priorities, convening partners to address gaps, recommending realignment of resources such as funding and improvement of coordination among and across public and private programs to efficiently advance outcomes;
- Develop recommendations to help shape state policy and stakeholder practices to address barriers, needs and opportunities identified by the initiative; and
- Broaden engagement of stakeholders in the initiative's work and help establish the tools and resources necessary to advance the work of the group.

Focus Areas

The PGC initiative is an advisory body tasked with making recommendations to state decision-makers in three main areas including:

1. Supporting environmental literacy programs in schools;
2. Increasing access to nearby nature; and
3. Promoting the use of the outdoors for learning, discovery, healthy play and career exploration.

PGC has been working collectively to identify gaps and barriers and develop solutions that will bring about change in these areas.

Defining Green Classrooms

The term "green classrooms" is used by the group in its broadest sense to mean all opportunities to learn, discover and experience the environment and natural resources in

Maryland. This includes both indoors and outdoors; during normal school day hours and outside of the school; at home and in the community.

Outdoor experiences are critical to learning about the environment, developing empathy and encouraging environmental stewardship. While outdoor experiences should be foundational to academics, child development and wellness, opportunities continue to be lacking for our youth. Going forward, PGC will focus additional efforts on bridging gaps to support academic achievement and wellness.

2019 RECOMMENDATIONS:

In June 2019, PGC submitted the following recommendations to the governor:

1. Support converting the existing Environmental Literacy Program Specialist position at the Maryland State Department of Education (MSDE) from a contractual to a permanent position.
2. Develop and promote guidance to local education agencies on environmental literacy programs, identify effective professional development components and support implementation.
3. Prepare pre-service teachers to facilitate environmental literacy learning with Maryland students.
4. Establish a sustainable schools team at the state level to support school districts in developing and implementing sustainability plans.
5. Identify public and private funding sources to support field-based outdoor educational experiences for students at public lands (such as local, state, and federal parks, forests, natural areas, and reserves) or other nature-based sites away from school campuses.
6. Establish a panel or other means to identify and invest in a sustainable model of environmental education implementation at our parks.
7. Address equitable access to parks and green space, working with communities.
8. Establish formal policies that encourage and facilitate all public and private early learning facilities to designate space for children to interact with nature.
9. Identify how best to include health considerations into all programs and services for children/youth/families.
10. Direct, encourage and guide intentional coordination among PGC and a variety of existing state boards, commissions and other entities.

Action Plan

To implement the recommendations, the partners developed an annual action plan with specific actionable items to advance work in the priority areas and the recommendations. The plan is designed to answer the following questions:

1. *Does every child in Maryland have the means, access, opportunity, knowledge, support, encouragement, desire and inclination to play, explore and learn outdoors – both during and outside of the school day?*
2. *What can be done to increase the time youth spend outdoors during and outside of the school day?*
3. *Do enough places exist to experience nature, are they sufficient and are they in the right locations? Can they get there?*
4. *How can we do more to build good stewards for the 21st century and prepare youth for life and careers?*
5. *What are some avenues of outreach that can help with all of the above?*

The recommendations and the action plan collectively support PGC's priorities in meaningful ways and are designed to create a pathway to more efficient and effective implementation. By engaging and cutting across multiple disciplines, we can coordinate resources and provide increased benefits for Maryland youth.

Implementation

The PGC partners have been working to implement the recommendations through the appropriate entities. In the remainder of this report, each recommendation is listed along with brief information about the actions and implementation strategies undertaken in 2019. The [full set of recommendations](#) as submitted in 2019, including supporting information on the goals and rationale for each, can be reviewed in the prior report, accessed through the [PGC website](#). In addition, PGC continues to pursue a variety of actions that support Environmental Literacy under the Chesapeake Bay Agreement and other statewide commitments. Achievements in 2019 on this ongoing work are also summarized in this report in the section outlining committee activities.

1. Environmental Literacy Programs in Schools

RECOMMENDATION: *Support converting the existing Environmental Literacy Program Specialist position at MSDE from a contractual to a permanent position.*

The state should support converting the existing Environmental Literacy Program Specialist position at the MSDE from a contractual to a permanent position during the next fiscal year. This position is critical to the state's achievement of its commitments under both the Chesapeake Bay Watershed Agreement and the governor's Executive Order for PGC. It plays a necessary role in ensuring local education agency support and implementation of the Environmental Literacy Standards (a graduation requirement). Experience in neighboring states shows that without this position, success and growth in these areas suffers.

PROGRESS: **This recommendation has been achieved.** MSDE converted this to a permanent position in November 2019 and hired a new specialist to begin work in February 2020.

2. Environmental Literacy Guidance to Local Education Agencies

RECOMMENDATION: *Develop and promote guidance to local education agencies on environmental literacy programs, identify effective professional development components and*

support implementation. MSDE should develop and promote guidance for local education agencies on what constitutes a “comprehensive, multidisciplinary environmental education program infused within current curricular offerings,” as outlined in the Code of Maryland Regulations (COMAR). MSDE should also identify effective professional development program components and support implementation by local education agencies by:

- Providing models
- Sharing information on funding opportunities
- Recommending partners
- Highlighting existing and available professional learning opportunities
- Identifying resources for both classroom-based and field-based educators

PROGRESS: This recommendation is underway. In December 2018, MSDE initiated a review and revision of the state’s Environmental Literacy Standards. After gathering input through a public survey and a series of regional meetings, MSDE convened a work group to review the feedback and revise the standards. In January 2020, the state Board of Education approved the revised standards for publication and public comment. In May 2020, the revised Environmental Literacy Standards will be presented to the state Board of Education for adoption. Multiple PGC partners contributed to the process in all phases.

In collaboration with the Chesapeake Bay Program (CBP) Mid-Atlantic Environmental Literacy Workgroup, PGC partners helped develop “A Facilitators’ Guide to Meaningful Watershed Educational Experience (MWEE) Trainings” (December 2019). The guide was used to train 200 educators, including 70 from Maryland, at the CBP Environmental Literacy Forum on January 22-23, 2020. This guide will be used in conjunction with CBP’s online MWEE course -- through a cadre of trained “MWEE Ambassadors” from the education community -- to expand and enhance MWEEs throughout the watershed. These tools will also help ensure consistency in the components of the programs.

One hundred percent of Maryland’s local school systems completed the 2019 Environmental Literacy Indicator Tool (ELIT survey), sent to all Chesapeake Bay watershed states. This data provides an indication of the degree to which the environmental literacy standards are being implemented in Maryland schools, helps to illustrate progress toward meeting the Chesapeake Bay Watershed Agreement Environmental Literacy goal, and highlights needs reported by school districts.

When the Environmental Literacy Standards are approved, MSDE will initiate development of an instructional framework that supports implementation of the standards in grades preK-2, 3-5, 6-8, and high school. In cooperation with PGC partners, MSDE will then conduct professional learning focused on implementation of the standards and framework with an emphasis on the benefits of having a comprehensive, effective Environmental Literacy Plan to improve communication and consistency of elements.

3. Preparation of Pre-Service Teachers

RECOMMENDATION: *Prepare pre-service teachers to facilitate environmental literacy learning with Maryland students.* Pre-service teacher requirements should include preparation for Maryland teachers to support students on their journey toward environmental literacy. It is recommended that relevant entities incorporate an environmental literacy pre-service

component into teacher education curricula at Maryland higher education institutions. This may include infusing effective content into coursework in different disciplines, creating credential opportunities and adding environmental literacy to certification requirements and regulations.

PROGRESS: This recommendation is underway. A committee has been formed to work on this recommendation. The approach, which will be ongoing in 2020, includes:

- Gaining understanding of the process for setting standards
- Identifying potential opportunities to contribute to requirements
- Recommending content to improve teacher preparation regarding environmental literacy

Current program or course offerings at various institutions will be inventoried and used as a basis to connect educators, share best practices, determine needs, and facilitate collaborative problem-solving.

4. Sustainable Schools

RECOMMENDATION: *Establish a sustainable schools team at the state level to support school districts in developing and implementing sustainability plans and sharing statewide best practices as an important component of environmental literacy.*

The sustainability plans should guide schools to gain environmental benefits by aligning to the three pillars of the U.S. Green Ribbon Schools program:

- Conforming to green standards
- Benefiting the health of students and staff
- Complementing and supporting the academic curriculum

This will assist the state in achieving its goals under the Chesapeake Bay Watershed Agreement, the Maryland Greenhouse Gas Reduction Plan and Maryland's Climate Adaptation plans by increasing the number of sustainable Maryland Green Schools. It will also support the goal of the Maryland Association for Environmental and Outdoor Education to go from 25% of Maryland schools certified to 50% by the year 2026.

The sustainable schools team should consist of individuals who can advise in the various disciplines applicable to the three pillars such as facilities and maintenance, health and wellness, curriculum and instruction, contracting, and budgeting. It would likely include partners from agencies and organizations outside of the formal school system and it would work in coordination with the Interagency Commission on School Construction and the School Safety Commission. A team at the state level would have the ability to assess practical measures and establish guidance and would serve as a model for teams at the local level to improve implementation.

PROGRESS: This recommendation is underway. The Chesapeake Bay Cabinet was briefed on all PGC recommendations and it was noted that the sustainable schools work offered the most opportunity for cross-disciplinary collaboration among the agencies. Maryland's Bay Workgroup will shepherd progress of this recommendation and report back regularly to the Bay Cabinet.

As a first step, a multi-disciplinary group will be convened in 2020 consisting of state agency representatives and stakeholders covering diverse areas of expertise ranging from facility management, curriculum integration, health matters, habitat and water quality restoration,

budget and finance. The team will examine effective drivers, incentives, and guidance that could be put in place to facilitate and increase sustainable practices in schools and contribute to student environmental literacy programs. PGC's sustainable schools committee has prepared background material and a list of suggested participants to use for inviting participants.

The Maryland Department of Planning (MDP) is the lead state department for this recommendation. An MDP intern has been working on gathering information regarding connections between student and school sustainable practices, state plans, related policies and goals (such as the Chesapeake Bay Watershed Agreement, Maryland's Greenhouse Gas Reduction Plan, and Maryland's Climate Adaptation Plan), and identifying co-benefits that can be achieved.

The committee is also linking with a project funded by the CBP to quantify and support the installation of Best Management Practices and restoration projects at schools to contribute to bay restoration goals. Geospatial data will be used to identify the potential for practices on school grounds. Research is also being done on how these projects can quantifiably contribute to CBP indicators and metrics, such as water quality, and how school districts can work this information into planning and operations.

The Maryland Green Schools Act of 2019 calls for a significant increase in the number of schools that become certified under the Maryland Green Schools program to help curb greenhouse gas emissions and meet the environmental education goals established by COMAR. Beginning in FY21, the act authorizes roughly \$270,000 in grants per year for six years (a total of \$1.6 million) to support environmental learning and student action projects. Eligible items include teacher professional development, transportation to and from outdoor learning experiences for students, outdoor classrooms, schoolyard habitats, water conservation, energy efficiencies and waste reduction. The act will assist with implementation of this recommendation by providing resources and encouraging administrative support to institute sustainable practices and achieve certification.

5. Funding For Outdoor Learning Experiences

RECOMMENDATION: *Identify public and private funding sources to support field-based outdoor educational experiences for students at public lands (such as local, state, and federal parks, forests, natural areas, and reserves) or other nature-based sites away from school campuses.* The state should consider identifying private and public funding sources to support a field-based outdoor educational experience for students in at least one grade level in each school district at public lands (such as local, state, and federal parks, forests, natural areas, and reserves) or other nature-based sites away from school campuses.

PROGRESS: This recommendation is underway. A committee was convened to determine a basic cost analysis and to enumerate the magnitude of need for funding statewide. Information from key environmental education funders, including the Chesapeake Bay Trust and the National Oceanic and Atmospheric Administration, was compiled to identify a preliminary cost for student outdoor learning experiences as part of the MWEE. The next step is to ground truth and refine the cost calculations through consultation with school districts.

A discussion with district science and environmental literacy supervisors has driven a need to clarify questions so that responses will be comparable. In 2020, the committee will develop an

effective tool to guide the inquiry and analysis, and will work with the district contacts to gather information about current experiences, costs, needs, and gaps. This data will be used to help quantify needs statewide and assist with future specific funding requests.

The CBP conducted its 2019 ELIT Survey with assistance from MSDE. All 24 Maryland school districts submitted responses characterizing their progress toward fully implementing systemic environmental literacy programs. Data is undergoing review, and final results, once compiled, will be used to better understand progress and help determine needs statewide. This information will be used by funders to strategically target districts and grade levels that currently lack programming and to increase offerings to students.

6. Environmental Education Experiences on Public Lands

RECOMMENDATION: *Establish a panel or other means to identify and invest in a sustainable model of environmental education implementation at our parks.* The state should establish a panel to examine how our parks might be utilized more effectively to support environmental literacy. The panel should identify a sustainable model and consider ways to pair natural resources professionals with environmental educators from nonprofits, universities and other relevant partners. Training should be included in the model to assure that program offerings are aligned to the needs of our schools and are thus more effective. The model should also identify options for funding to support and sustain the model long term, benefiting all involved partners.

PROGRESS: This recommendation is underway. The Maryland Park Service, a unit of the DNR, is taking initial steps to implement this recommendation. MPS will be working on an internal analysis of existing environmental education efforts on public lands, highlighting its most successful programs that can offer replicable components. DNR educators will work with MSDE to identify where school district needs and interests align with opportunities to grow environmental education efforts. The analysis should ultimately lead to a strategy for expanding environmental education, improving marketing and schools' awareness of existing programs, and reaching out to potential partners to assist with enhancing program offerings.

7. Equitable Access to Green Space

RECOMMENDATION: *Address equitable access to parks and green space, working with communities.* The state and its partners should identify and promote existing incentives and help communities prioritize projects that establish and maintain equitable access to parks and green space. This includes developing, sharing and using available federal, state and local resources to identify gaps and best practices and engaging community members in the planning process. Special emphasis should be placed on efforts for communities that historically have had obstacles connecting to open nature spaces.

PROGRESS: This recommendation is underway. DNR is evaluating internal policies and practices that can be enhanced to further implement this recommendation. Staff will identify possible opportunities for effective changes and present them to agency leadership in 2020. To the extent feasible, this effort will be aligned with the Maryland Outdoor Recreation Economic Commission's 2019 recommendations. DNR worked with the University of Maryland School of Public Health to reevaluate and relaunch the Maryland Park Equity Tool. The revamped tool is based on an updated model and incorporates active and passive recreation data for parks statewide. In 2020, it will be updated with health and other disparity data. The tool is intended to

assist with state and local planning efforts as well as inform potential resource and assistance programs and funding efforts.

8. Outdoor Play and Learning Environments

RECOMMENDATION: *Establish formal policies that encourage and facilitate all public and private early learning facilities to designate space for children to interact with nature.* The state should establish formal policies that encourage and facilitate all public and private early learning facilities to designate space as an enhanced outdoor play and learning environment. The designated space should include features that allow interaction with nature and related activities to benefit children's health and well-being. Guidelines for a high quality outdoor learning environment should come from well-established local and national leaders such as the U.S. Forest Service, National Wildlife Federation and Natural Learning Initiative collaborative. This can be facilitated through leadership direction, guidance materials, identifying and promoting funding resources, establishment of partnerships and other support.

PROGRESS: This recommendation is underway. PGC has added [guidelines and tools](#) to its website that support early childhood outdoor natural learning environments. Additional efforts are underway to determine needs and opportunities for policies and practices that will increase nature connections at early learning facilities. PGC's Nature Play Spaces committee developed an online survey tool to gather baseline knowledge of the extent and manner in which nature play areas are being used in Maryland. The online tool will also be used to determine the level of technical assistance and guidance needed at the state level. The survey will be distributed through the existing PGC network and to attendees of previous and upcoming nature play workshops. In 2020, the committee will review existing outdoor space guidelines and work with decision-makers to determine if a Maryland-specific product is warranted. In addition, the committee is working with the National Wildlife Federation to explore establishing a funding and guidance program for early childhood outdoor learning spaces in Maryland as part of a statewide partnership. These measures will inform next steps toward completing this recommendation as well as the Access to Nature and Green Space recommendation.

9. Improve Connections to Health and Wellness:

RECOMMENDATION: *Identify how best to include health considerations into all programs and services for children/youth/families.* The state and its partners should identify how best to include health considerations in all programs and services for children, youth and families. This involves the broad school community as defined by the [2006 Maryland Nutrition and Physical Activity Plan](#) and encompasses the full spectrum of learning institutions at all levels as well as family and community settings. An accompanying resource portfolio should be created that includes information around physical and mental health benefits of nature-based recreation and made available in an accessible format. Special emphasis should be placed on schools and communities with lower levels of outdoor activity.

PROGRESS: This recommendation is underway. A draft resource portfolio was developed in 2019, and shared at the October 2019 PGC meeting. It outlines the scientific evidence of the many benefits of outdoor time, existing policies and references to use for building awareness. This is an ongoing project, and in 2020, additional sections will be added to the draft before a completed guide will be made available. The ultimate goal is to use this as a means to build support for outdoor time in various settings, align practices with health goals and highlight the need for changes in guidance, practices, and policies.

As a parallel effort, two school districts are piloting actions to make green space available in schools as a means to enhance student wellness (e.g., to serve as de-escalation or calming areas and to benefit behavior and readiness to learn). Lessons learned from these districts will contribute to formulating guidance or shared resources so similar practices can be deployed at schools. The PGC wellness committee will utilize the pilot experiences and policy connections gathered in the resource portfolio to inform future recommendations on possible changes to policy or practice on a larger scale.

10. Coordination Among Complementary Groups

RECOMMENDATION: *Direct, encourage and guide intentional coordination among PGC and a variety of existing state boards, commissions and other entities.* PGC should coordinate intentionally with existing state boards, commissions and other entities to integrate implementation of complementary goals and plans and share resources, as appropriate. Entities involved may include the Maryland Climate Change Commission, the Maryland Outdoor Recreation and Economic Commission, and other groups that assist and support sustainable schools actions as identified in the original recommendations.

PROGRESS: **This recommendation is underway.** All of the aforementioned organizations have played a role in the work of PGC. Partners have either participated in, consulted with, or become informed about these other groups and initiatives. Wherever feasible, partners have actively shared information and resources to achieve co-benefits as effectively and efficiently as possible. Actions, commitments, and participating partners are shared among PGC, the CBP Environmental Literacy Workgroup and the Maryland Climate Change Commission resulting in cross-programmatic and mutual strategies.

ADDITIONAL STRATEGIES AND ACCOMPLISHMENTS OF 2019 (Committee Activities)

While a large portion of PGC's work in 2019 centered around the recommendations, a significant amount of ongoing work continued through PGC standing committees.

Each standing committee is led by a steering committee member. The committee membership also includes other steering committee members, partners and interested parties outside of the official membership. The work plan and work of the committees is approved annually by the Voting Members (state agency heads or their representatives), and updates are presented at the two full membership meetings held annually.

The standing committees continually strive to address barriers and challenges by identifying solutions and actions to affect change. Intentional efforts are made throughout all of their work to infuse recommendations for inclusivity, agriculture and health and to explore possibilities for funding. All of the strategies have multiple components that are cross-cutting - there is strong coordination so that there are no "silos."

The standing committees are as follows:

Environmental Literacy and Learning Outdoors

[Committee led by MSDE]

Partners are engaged in many ongoing activities that support environmental literacy programs in schools. As a main driver this year, this committee will use the strong relationship between the Next Generation Science Standards and Environmental Literacy standards to recommend best instructional strategies to target student achievement and environmental stewardship in Maryland. Critical to this goal will be networking key stakeholders and increasing their capacity to integrate environmental learning across disciplines, with the expectation that outdoor learning experiences are fundamental. This work may entail actions such as guiding professional learning, advising instructional content, or recommending best practices. Stakeholders include but are not limited to: (1) higher education entities preparing or certifying pre-service teachers, or classroom based educators serving as mentors for interns and environmental-related departments (environmental studies, conservation, agriculture, etc.); (2) field and classroom-based educators; (3) curriculum writers and program developers; and (4) administrators at various levels.

- PGC partners contributed to the process of reviewing and revising the state's Environmental Literacy Standards. Once approved and set in place (anticipated in mid-2020), the partners will assist with outreach and professional development measures to help both formal educators and non-formal environmental education partners to become familiar with the updated standards and to connect them with supporting resources.
- PGC partners helped to complete development of "A Facilitators' Guide to MWEE Trainings" (December 2019), in support of and collaboration with the CBP Mid-Atlantic Environmental Literacy Workgroup. This guide will be used in conjunction with the CBP's online MWEE course to expand and enhance MWEEs throughout the watershed with consistency in the components included in programs statewide.
- The University of Maryland Center for Environmental Studies-Appalachian Laboratory, working with PGC partners, has led a three-year effort to build the capacity of school districts to plan and implement MWEEs systemically across specific grade levels. This project, titled "Making the Link," is enabling schools and their partners to weave together requirements in science (Next Generation Science Standards) with the Environmental Literacy standards, using MWEEs as an effective approach to teaching and learning -- and has paired school district curriculum writers with local environmental education partners to develop the MWEEs and embed them in the required curriculum. To date, seven districts have participated in the year-long commitment. MWEE plans, lessons learned, success stories, and other resources from the project will be shared statewide and utilized in future professional learning programs.
- Partners have explored possibilities for the inclusion of the content and pedagogy of environmental education in higher education teacher pre-service preparation programs, both as a consideration for inclusion in certification requirements and other credential options, and as optional course offerings. A variety of opportunities are being considered. In 2020, a renewed committee on this topic is engaging in this work with a focus on sharing information, practices, and successes among institutions, and encouraging and enhancing offerings to pre-service students through the professional community.

Sustainable Schools

[Committee led by MDP]

Sustainable schools efforts connect conservation practices, health and wellness policies and real-world student stewardship experiences with the schoolyard and the school building as learning laboratories. Partners aim to increase the ability of schools to utilize their buildings and grounds as a means for authentic hands-on learning and a place to practice stewardship toward an eventual culture shift to embrace practices at school and in the community that benefit the environment and human health.

While Maryland is a regional leader in sustainable schools programs, including Maryland Green Schools, Eco-Schools, and the U.S. Green Ribbon Schools Program, there is still a long way to go before benefiting students at every school. The efforts of this group strive to support exponential growth in this area. PGC partners will continue to support sustainable schools efforts through professional learning; sharing guidance, information, instructional resources, and project examples; and increasing awareness of funding sources -- to help schools link their buildings and grounds to curriculum in environmental literacy. The sustainable schools committee will work to identify the means to encourage and facilitate higher level support for planning that will help to scale up efforts to involve more schools throughout a school district. The committee work has been focused primarily on preparing background material and identifying co-benefits of multiple state efforts, to inform implementation of the sustainable schools recommendation; and on coordination with the Interagency Commission on School Construction, Maryland Green Building Council. The committee's work also includes supporting and tracking Maryland's actions under the Chesapeake Bay Watershed Agreement Environmental Literacy Goal - sustainable schools outcome.

Healthy Outdoor Time / Wellness

[Committee led by MDH]

Through partnerships, programming and technical support, Maryland Department of Health and its partners will work together to encourage healthy outdoor play and learning for all children in Maryland. Health benefits for children are maximized when their outdoor environment is safe and healthy and there is equitable access. More benefits can be realized when planning considers the needs of all children within the context of health and community safety. The committee will strive to increase awareness of the value of active time outdoors in nature settings for health, wellness and academic success. By combining knowledge, planning and data tools available among the partners we can maximize benefits and success. The committee will also work to promote and guide development of safe and inclusive outdoor programming and activities. They will provide recommendations and guidance resources for educators, caregivers, facility managers, local planners and others; identify areas of need in Maryland; and consider avenues to address challenges.

- The committee's resource portfolio noted above was drafted during 2019, and will be completed in 2020, outlining the scientific evidence of the benefits of outdoor time, existing policies and references to use for building awareness. Once complete, it may be accessed online through PGC's website.
- Pilot efforts are underway in two school districts to test feasible practices to make green space available to students as part of a whole-child wellness approach and tool for behavioral solutions, trauma-informed care, and to serve needs of different learners.

Lessons learned in these districts will be shared with others to encourage replication, and used to help inform future development of these practices.

Access to Nature

[Committee led by the MDOT]

To increase children's access to nature, the committee will work together to find synergies and develop a set of guidance materials that outline methods and resources for successfully getting children to nature, both during and outside of school hours. Each of the partners have various programs, funding sources, data and mapping resources that can be used to help advance children's access to nature, but they are currently working independently of one another. By identifying potential collaborations, the partners will be more efficient and effective in administering current programs; communicating to teachers, administrators and parents about how to take advantage of these programs; identifying where resources are still needed; and exploring mechanisms across programs to carry out effective solutions.

- A GIS story map, "[Get Kids Outside in Maryland](#)," was created in 2018, and includes destinations, schools and transportation linkages (bicycle/pedestrian, trains, buses). A rail trails GIS layer was added to the map to identify separated bike trails. The online resource is available for practitioners and the public to use to help identify places to go to access green space and how to get there by various means; and for decision-makers to use to identify where there are gaps that need to be addressed. As this resource continues to be developed and expanded, the Maryland Department of Transportation is working on a comprehensive bike trails/trails layer which will be added in 2020. Additional layers may be identified and added in the future. This tool will be aligned with the expanded Park Equity Analysis noted below (ceejhlabs.org/mid-atlantic/projects/2019/2/2/md-ejscreen).
- The committee continues to gather information on existing state programs with funding sources that support off-site field experiences, specifically for transportation from schools to nature sites (coordinated with actions noted below and those toward Recommendation #5).
- PGC partners and the larger environmental education community continue to identify and strive to overcome barriers that prevent or discourage educators from bringing children to nature spaces. Through a variety of actions, partners continue to support preparation of principals, teachers and environmental education partners to appropriately facilitate quality learning experiences outdoors. Some examples:
 - The CBP Environmental Literacy Leadership Summit, held June 2019 in Virginia, was one example of engaging agency leaders with educators in discussing these barriers and challenges, while highlighting best practices, raising awareness and support, and collaborating on proposed solutions.
 - DNR is developing a variety of means to encourage and facilitate more use of public lands by schools. To this end, the following have been implemented this year:
 - In October 2019, Lt. Governor Boyd Rutherford joined Secretary Jeannie Haddaway-Riccio in announcing that for the fifth year in a row, DNR will provide free admission to Maryland State Parks for fourth grade students

and their families through the “Every Kid Outdoors” partnership with the U.S. Department of Interior.

- A webpage was prepared to help teachers find state parks and know how to arrange site visits, and instructional resources are being developed to add to the website.
- Education staff began offering professional development workshops for teachers at state parks.
- Funding made available through DNR, from the U.S. Environmental Protection Agency Chesapeake Bay Implementation Grants, supported student experiences in four school districts (\$100,000 awarded in 2019), with a second round of competitive funding opened in late 2019 (additional \$100,000 to be awarded in 2020) with an increased emphasis on outdoor learning utilizing public lands, and on student stewardship projects.

Green Space

[Committee led by DNR]

In order to connect more children and communities to Maryland's natural resources, it is critical to increase the quantity, quality and accessibility of green spaces available for exploration, recreation and learning. The committee will continue to work with local, state and federal agencies, nonprofits and industry representatives to highlight design practices, share tools for green space planning and programming and advocate for incorporation of these policies into long-term planning efforts. The committee will work with partners to identify needs and build resources to support the design, creation, maintenance and use of green infrastructure, including nature play spaces, pocket parks and rain gardens, as well as larger parks and public lands. This will include efforts to increase awareness of the value of green space to the economy, human health, education, community building, climate resiliency and overall ecological benefits as well as future policy recommendations.

- The Park Equity Analysis was updated in 2019 by DNR and the University of Maryland School of Public Health to provide an initial quantitative tool to extend public access to nature to underserved communities, foster community connections, and grow future stewards of our natural world. The goal of this analysis is to provide a tool that employs national, statewide, and local data in a consistent and strategic manner for the state and its local partners to understand and plan for the location of natural areas, park space and more. The tool includes demographics, income, park location and amenities, and more. The second phase of the tool will be developed in 2020, and will include health and climate stressor data.
- The committee hosted the second NatureCity forum (conference) in 2019 at Brookside Gardens (Wheaton, Maryland) with more than 130 people attending, to share best practices, data and inspiration to support existing and new programs and collaborations. The forum engaged practitioners in Maryland responsible for park planning and other environmental programs in urban and suburban landscapes, such as local planners, landscape architects, park managers and local decision makers; and promoted increased access to nature and green infrastructure, serving as a platform to build capacity by sharing data and other planning tools for green space projects, facilitating

interaction and exchange of practices. Presentations and discussions were included on the topics of equity, green infrastructure, public health and cutting-edge GIS tools.

- The “Nearby Nature” committee developed a set of recommendations to be included in the 2019 Statewide Land Preservation and Recreation Plan to guide planning for access to and use of nature in or near communities. Goals include environmental literacy and outreach on public lands, equity, access and health. These state goals will serve as a guide for the upcoming development of county-based recreation plans. The committee and state will continue to work with local governments as they develop their long range Local Parks and Recreation and Preservation Plans, Comprehensive Plans, and Sustainable Community Plans. These plans often address recreational trends, community needs, health and quality of life and are a strategic intervention point to establish access to nature policies. The goals of the state plan will serve as a model for the local planning cycle, which is set to begin in 2020.
- The Nature Play Spaces committee is working with the Eastern Regional Association of Forest and Nature Schools, National Wildlife Federation, University of Maryland, NoVa Outside and others, to plan and host The Chesapeake Nature Play & Learning Conference, Oct. 22-23, 2020 at Brookside Gardens in Wheaton, MD. The event will include a range of approaches to natural play space design for outdoor learning. Speakers will include a keynote by renowned United Kingdom-based author and educator, Jan White, founder of Every Child Outdoors, followed by engaging panels from local leaders and workshops that highlight ways to embrace outdoor learning. Topics covered will include maintenance, design, addressing common fears of being outdoors (“green fear”), teaching outdoors, parks and health, and more.

Career Pathways

[Committee led by the Chesapeake Bay Trust, assisted by DNR]

The initiative aims to help provide a clearer picture of what green careers look like and support a robust pipeline into successfully pursuing them. Through connecting numerous environmental career development programs in Maryland, including opportunities in agriculture and less-traditional areas of natural resources conservation, and listening to youth participants, the committee is working to identify and address gaps and needs; and is exploring ideas on how to improve the pathway into green jobs and careers in Maryland. Ideas have been identified for tools, resources and other opportunities for collaboration. By continuing to connect the various youth career development programs as a singular community, the group will facilitate intentional strategies to: increase and improve outreach to youth, better communicate and define green careers, strengthen and simplify the pathways between programs, increase diversity and equitable access to these opportunities, strengthen the alignment of program elements with workforce demand; and continue to identify where tools and resources are still needed.

- A centralized repository of green career opportunities and resources in Maryland, the [Chesapeake Youth & Young Professionals Portal](#) has been developed and its use is growing. The comprehensive resource is made available on the Alliance for the Chesapeake Bay's Chesapeake Network site, and is intended as a one-stop-shop, especially for youth and those seeking entry level jobs, to easily access the vast number

of opportunities available to build knowledge, skills, experience, and preparedness to enter the green career field. In 2019, the committee focused its efforts on promoting the new resource and working with the broader community to populate the clearinghouse with information and current opportunities for training and jobs, as well as to encourage K-12 schools and higher education institutions to share it with students and other job-seekers.

- The committee has been exploring effective means to share best practices and improvements for recruitment and retention of youth and young professionals to green job positions in various sectors. This includes identifying improved means for communication, connecting youth with information about the various conservation-related fields and green jobs, preparing them for the workforce, and working to improve efforts in these fields to engage in practices that will increase equity and inclusion. To this end, in 2019 the committee has been developing a comprehensive Guide to Green Careers in Maryland, which will include information, guidance and resources regarding potential green jobs and professions in Maryland, including the future outlook of green careers in Maryland, different pathways to a green career, where to find and how to apply for jobs in the field, existing academic and certification programs in Maryland, and more. It will also include brief profiles on a number of professionals currently working in a variety of jobs, to help put faces on the many roles, talents, skills, and diversity of backgrounds that make up the field. Students and other young people have been engaged in interviewing the professionals for these highlights. Once completed (possibly late 2020), the guide will be made available through the Youth & Young Professionals Portal and promoted through school guidance offices, workforce development programs, career centers, and more.

Policy and Planning Considerations

[Facilitated by the PGC co-coordinators - MSDE and DNR]

Since the committee has been charged with serving in an advisory role, with the call to make recommendations to state decision-makers and with some of those decision-makers engaged as the leadership of the initiative, we have the capacity to recommend and explore options for potentially influencing policy and operations as appropriate to support the stated priorities. As committees identify areas of need that might be helped by higher level requests for solutions, this committee will assist them by researching opportunities and mechanisms. In addition, as PGC is the vehicle to plan and achieve commitments under the Chesapeake Bay Watershed Agreement, actions needed to address and track that parallel work are noted here.

- The North American Association for Environmental Education (NAAEE) continues to provide updates to the partners on the national landscape of activities surrounding increasing outdoor discovery/learning and environmental literacy, including sustainable schools efforts. Several examples of new and/or innovative policies and practices from other states have informed the recommendations and the work of the committees. More recently, NAAEE, in partnership with the National Caucus of Environmental Legislators and several other organizations, have launched a [Youth Outdoor Policy Playbook \(youthoutdoorpolicy.org/\)](http://youthoutdoorpolicy.org/). This online toolkit for exploring state-level policies for advancing youth outdoor engagement and environmental literacy is a potentially valuable resource as PGC considers successful systemic approaches from around the country. Aligning with other efforts that are building momentum and resources to

support outdoor connections and academic achievement assists our work and helps to focus on effective measures.

- PGC actions and many of its partners are actively supporting and contributing to progress toward the Chesapeake Bay Watershed Agreement Environmental Literacy goal. This goal calls for states to have a comprehensive and systemic approach to environmental literacy that includes policies, practices, funding and tracking metrics. Several of the achievements reported here support the actions identified in the 2-year action plan for Maryland, and steady progress is ongoing.

Looking ahead

The work plan for PGC through 2020 is anticipated to focus on completing the actions set in the 2018 plan, building on the success of 2019, and growing our work to meet the environmental literacy commitments under the Chesapeake Bay Watershed Agreement (Maryland's 2018 two-year action plan).