

State Environmental Literacy Plans

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North American Association
for Environmental Education

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STATUS REPORT

State Environmental Literacy Plans

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States across the nation continue to advance environmental literacy for K-12 students through the development and implementation of comprehensive environmental literacy plans (ELPs). These plans reflect a systemic approach to the integration of environmental education into the K-12 curriculum in order to support academic achievement, social emotional learning, civic engagement, and workforce development. Many also include objectives related to early childhood nature-based play and learning, public access to nature, youth outdoor engagement, and community health and wellness. This overview of ELPs is NAAEE's third status report on the progress states are making as they continue to advance their goals and objectives and implement recommendations for environmental literacy. The information contained in this report was collected over an 18-month period, beginning in summer 2017, via a national survey and through phone interviews.

Environmental Literacy Defined

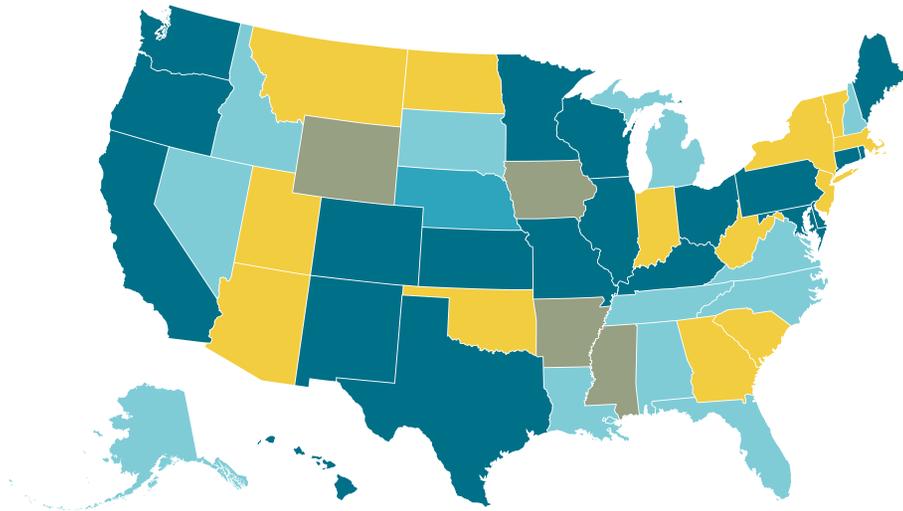
An environmentally literate person, both individually and together with others, makes informed decisions concerning the environment; is willing to act on these decisions to improve the well-being of other individuals, societies, and the global environment; and participates in civic life. Those who are environmentally literate possess, to varying degrees:

- Knowledge and understanding of a wide range of environmental concepts, problems, and issues;
- A set of cognitive and affective dispositions;
- A set of cognitive skills and abilities;
- The appropriate behavioral strategies to apply such knowledge and understanding in order to make sound and effective decisions in a range of environmental contexts.



Environmental literacy plans (ELPs) are state-specific comprehensive frameworks that support school systems in expanding and improving environmental education programs. ELPs:

- Ensure that environmental education activities are aligned with student graduation requirements and help achieve state education goals
 - Integrate environmental education fully, efficiently, and appropriately into formal education systems
 - Align teacher professional development opportunities in environmental education with student achievement goals in environmental literacy
 - Ensure consistency, accuracy, and excellence in environmental content knowledge
 - Engage underserved communities through an inclusive process so that all stakeholders are beneficiaries of environmental education in schools
 - Involve nonformal environmental education providers, state natural resource agencies, community organizations, and other partners in environmental education activities in schools
- While states have taken different approaches in the development and implementation of their ELPs, NAAEE’s guide “Developing a State Environmental Literacy Plan” outlines the minimum considerations an effective ELP should address*:
 - 1) Specific content standards, content areas, and courses or subjects where instruction will take place
 - 2) A description of how high school graduation requirements will ensure that graduates are environmentally literate
 - 3) A description of programs for professional development of teachers to improve their environmental content knowledge, skill in teaching about environmental issues, and field-based pedagogical skills
 - 4) A description of how the state education agency will measure the environmental literacy of students
 - 5) A description of how the state education agency will implement the plan, including securing funding and other necessary support



ELP Stages by State

- **Have not yet begun ELP development:**
AR, IA, MS, WY
- **Drafting stage:**
AZ, GA, IN, MA, MT, ND, NJ, NY, OK, SC, UT, VT, WV
- **Completed but not adopted:**
AK, AL, FL, ID, LA, MI, NC, NH, NM, NV, SD, TN, VA
- **Adopted but not implemented:**
NE
- **Implementation underway:**
CA, CO, CT, DC, DE, HI, IL, KS, KY, MD, ME, MN, MO, OH, OR, PA, RI, TX, WA, WI

No Child Left Inside

Interest in developing statewide environmental literacy plans spiked between 2008 and 2015, when lawmakers and grassroots supporters of environmental education championed legislation called the No Child Left Inside (NCLI) Act. Among other things, the proposed legislation would provide federal education funding to states for the implementation of comprehensive environmental literacy plans.

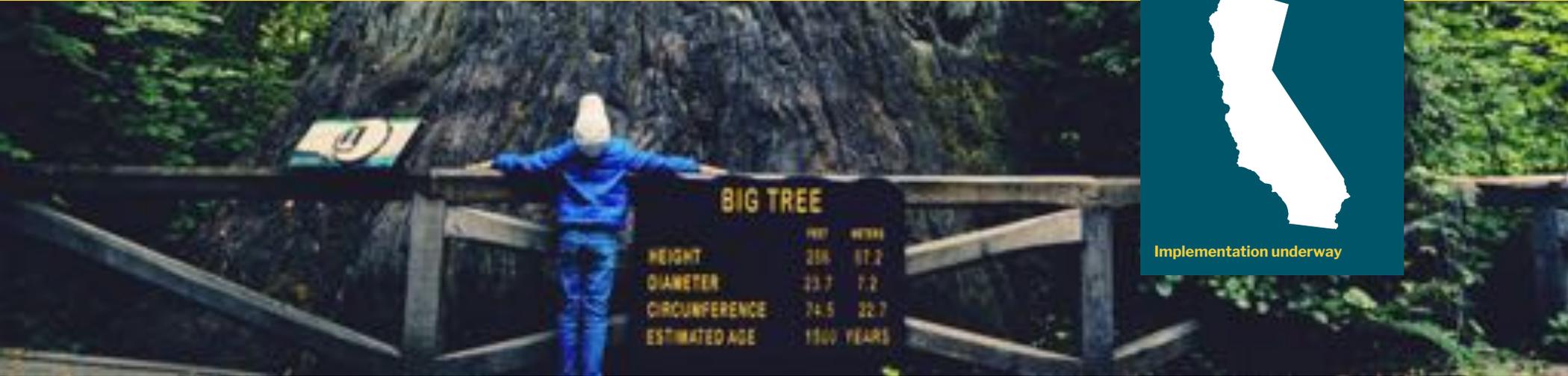
The potential for funding incentivized dozens of states to begin development of plans in keeping with the criteria set forth in the NCLI Act. While the bill ultimately was not voted on in the Senate (a version of the bill passed the House with bipartisan support in 2008), it did have an impact on federal education policy. The 2015 Every Student Succeeds Act now makes environmental education explicitly eligible for funding under a Title IV grant program. The relevant grant funds are directed to local education agencies and are not tied to a state-wide environmental literacy plan.

Despite the lack of a federal incentive for state-wide environmental literacy planning, many states nevertheless have completed plans and have made progress towards implementation, even if incrementally. Others have even updated previously developed plans to reflect changes in educational standards or because of renewed interest in the value of a plan for advancing systemic environmental literacy. That said, some states' planning processes have been put on hold or abandoned completely pending any further federal incentive or mandate.

At the time of the writing of this report, new changes to federal education policy that would increase support for environmental education, including through environmental literacy plans, were being considered by some lawmakers.



Implementation underway



California: Pursuing solutions of scale

California completed its Environmental Literacy Plan, *A Blueprint for Environmental Literacy*, under the guidance of former State Superintendent for Public Instruction Tom Torlakson and his Environmental Literacy Task Force in 2015. In 2016, California's Environmental Literacy Steering Committee was convened to identify and implement the most timely, scalable, and highly leveraged priorities contained in the Blueprint. The steering committee now operates as the California Environmental Literacy Initiative (CAELI).

The work underway is organized around the goals of equity and cultural relevance, investing in school districts as the unit of change, and taking successful models to scale. California-based nonprofit Ten Strands, on behalf of CAELI, has so far raised \$10 million in support of the implementation of environmental literacy and the Blueprint, plus \$4 million through a state Budget Act. Partners involved in the work include state agencies, educational institutions, science and environmental educators, county offices of education, community-based organizations, and others to ensure that all of California's 6.2 million K–12 students achieve environmental literacy.

California's Environmental Principles & Concepts have been fully integrated in the State's Science, History–Social Science, and Health Frameworks. Environmental literacy is being integrated into professional learning statewide through Next Generation Science Standards workshops, and through other professional development offerings across content areas. A toolkit detailing how to incorporate environmental literacy at the district level has been created and shared widely with California district superintendents at statewide professional conferences and convenings.

In September 2018, California's governor signed SB 720 into law. SB 720 directs the State Board of Education, State Superintendent of Public Instruction, district superintendents, and school boards to support environmental literacy. It codifies California's Environmental Principles and Concepts (EP&Cs) into the Education Code as the state's definition of environmental literacy, and it embeds core ideas from the *Blueprint for Environmental Literacy* into the same code.

Colorado – Regional councils vital to implementation

After adoption of Colorado’s environmental literacy plan in 2011 by the State Board of Education, four Regional Leadership Councils formed to coordinate and oversee implementation efforts. The councils are made up of representatives from a variety of sectors and communities including formal education, non-formal education providers, agriculture, oil and gas, energy, forestry, tourism, and recreation. Regional council members serve as champions of Colorado’s plan by the development and enhancement of environmental education networks and partnerships on a local level. Over the past several years, the councils have been planning and piloting professional development opportunities for teachers and networking opportunities between nonformal providers and teachers. In 2017, the regional councils created a five-year implementation plan to scale these efforts to reach more districts and involve additional partners in outreach and support to teachers. Because all curriculum and instruction decisions in Colorado are made at the district level, these regional councils are critical to successful outreach to school districts about the environmental literacy plan. Still, outreach remains difficult, especially in small and rural districts where there are no council members living nearby.

Partly for this reason, Colorado has adopted a bottom-up approach to generate momentum and energy before approaching leaders at the district level, driven by teacher initiative.

Teachers who attend partner activities are asked to make a “pledge” to either participate in EE professional development or field experiences with their students. In order to evaluate how this approach is working, numbers of pledges in each district are being tracked. Teacher surveys help to capture how many teachers are able to fulfill their pledge and what type of impact the environmental education activities have had on the classroom. As increasing numbers of teachers fulfill their participation pledges, leadership councils hope to see district-wide impacts for systemic environmental literacy.

“Implementation of an environmental literacy plan is a long-term process. It takes an ongoing effort to build and maintain momentum.”

—Katie Navin, Executive Director, Colorado Alliance for Environmental Education



Washington, D.C. – Alignment with citywide priorities

The District of Columbia’s DC Environmental Literacy Plan has been successful largely as a result of collaboration and alignment with other area priorities, including implementation of the Next Generation Science Standards and Sustainable D.C., a citywide initiative to make Washington the most sustainable city in the United States. In addition, the Chesapeake Bay Agreement of 2014—a regional watershed protection and restoration plan—includes a goal to strengthen environmental literacy which provides an additional leverage point for proponents of the blueprint.

The District’s environmental literacy plan and implementation strategy is currently housed under the Office of the State Superintendent of Education (OSSE). Since 2015, OSSE has had an environmental literacy coordinator who is charged with overseeing implementation. Having such a position has been key to build support for and awareness of environmental literacy, and the role of education is advancing broader initiatives like Sustainable D.C. By strategically embracing and collaborating with other District initiatives and priorities, the District’s investment in environmental literacy programs has grown significantly. Two District agencies have grant programs to assist schools with components of an environmental curriculum.

OSSE’s investments in environmental literacy has also grown. Most recently, OSSE has established an Environmental Literacy Leadership Cadre, a cohort of elementary schools working to integrate environmental education at every grade level. OSSE has provided grants to nonformal education partners who are supporting the leadership schools, as well as for school gardens, field experiences, and other environmental education programs. Because the plan must be reviewed and updated every three years, OSSE can ensure it remains relevant and aligned to student and overall District needs.

“We work to ensure our environmental literacy efforts are as aligned to the city’s biggest priorities as possible, so that the District’s plans support each other, rather than detract. By collaborating on District-wide initiatives, we can make a stronger and more meaningful student impact.”

— **Grace Manubay, Environmental Literacy Coordinator, Office of the State Superintendent of Education**



ELP completed not adopted

Hawaii – Relationship-building drives progress

The Hawaii Environmental Education Alliance (HEEA), working with the Hawaii Department of Land and Natural Resources and the Hawaii Department of Education, created Hawaii’s Environmental Literacy Plan (HELP) in 2012 to address environmental education and environmental literacy in Hawaii’s schools. The plan has been finalized, but it has yet to be formally adopted. The state is exploring a timeline for HELP review in 2019.

Relationship-building has played an important role in advancing support for environmental literacy programs in Hawaii. During the HELP writing process, HEEA, the Department of Land and Natural Resources, and the state Department of Education convened educators in a retreat-style meeting to proactively facilitate relationships across the state.

Even without formal adoption HEEA is exploring the development of an memorandum of understanding with the Hawaii Department of Education for professional development, a key goal of the Hawaii environmental literacy plan. The Department of Education’s new Community Engagement Office, which is charged with building partnerships and connections between schools and other entities to create a cohesive community, is key in this effort.

While the importance of environmental literacy endures in Hawaii, continuity within HEEA and the Hawaii Department of Education has been a barrier to plan adoption. To address this, HEEA plans to hire permanent staff to provide for linear, consistent progress towards adoption. In addition, the MOU with the Department of Education will provide a foundation for a more formal relationship between the two entities and hopefully lead to the adoption of more HELP goals.



Implementation begun,
revising plan

Kentucky – Input from every level vital to attaining plan goals

Kentucky was a relatively early adopter of environmental education. Legislation in 1990 mandated the creation of the Kentucky Environmental Education Council (KEEC), with volunteer members who serve four-year terms and are appointed by the governor. The KEEC is tasked with creating an environmental education plan, establishing a system of grants, raising funds, and monitoring and reporting on the status of environmental literacy in the state. Kentucky first developed an environmental education plan in 1999 and has since updated it twice. The Kentucky Board of Education adopted the ELP in 2011.

The KEEC is currently in the process of seeking public comment on the proposed revision of the plan after receiving feedback during the implementation phase. The revision process included individuals from the KEEC, the Kentucky Association for Environmental Education, the Kentucky Department of Education, Kentucky Green and Healthy Schools, current and retired teachers, administrators, and school district representatives.

Including a variety of stakeholders in the process has been key to successful implementation. Kentucky is a local control state (with 173 independent and autonomous school districts). Approval and support from local teachers, who are tasked with the actual instruction, and administrators has been vital to implementation, thus having them as part of the process has provided crucial insight into how to garner backing. In addition, representatives from the Kentucky Department of Education provide vital expertise on the state assessment system and local rules. The local affiliate is able to provide connections to a wide range of people, organizations, and resources.



Implementation underway

Maryland – Tying nature-based learning to the ELP

Maryland, where the Chesapeake Bay watershed area is an important part of the ecosystem, has a long history of promoting environmental learning during the school day. In 2011, as a direct outcome of its statewide environmental literacy report and recommendations, Maryland’s board of education mandated that high schools across the state offer environmental education coursework for students, who now must complete an environmental literacy requirement to graduate. While environmental literacy content had been required for all grades preK-12 for many years, the graduation requirement added a new level of accountability. Now, the state tracks compliance at the school district level, with a report due every five years.

In June, 2017, Maryland’s governor issued an executive order that reaffirmed the state’s commitment to advancing environmental literacy and connecting children to nature, establishing the “Project Green Classrooms” initiative. The order expands the advisory body co-chaired by the departments of education and natural resources, to now include leadership of eight state agencies with authority for multiple disciplines, working with a host of public and private partners. The group is tasked with promoting “outdoor experiential activities and environmental education through Maryland’s schools, communities and public lands”. The first set of recommendations from the revamped advisory team to advance progress toward environmental literacy and promoting outdoor

learning and discovery was submitted to the state in June 2019, and implementation is beginning.

The group continues to support Maryland school districts in meeting the environmental literacy standards and implementing the graduation requirement -- through guiding consistency in professional development, connecting partners to work with schools, guiding and recognizing sustainable schools’ practices, and considering solutions to address needs expressed by districts and educators. This includes assisting the Maryland State Department of Education in reviewing the Environmental Literacy Standards to ensure that the requirement works in tandem with Next Generation Science Standards. In addition, the group is working to improve equitable access to nature on schoolgrounds and in communities, identifying and addressing funding gaps for meaningful outdoor learning experiences for all Maryland students, incorporating health and wellness into school and community programming, and promoting pathways to green jobs and related careers.

One notable recent success is the passage of the Maryland Green Schools Act of 2019 by the state legislation. The act calls for a significant increase in the number of schools statewide that become certified as Green Schools and provides funding to support environmental learning and stewardship efforts including teacher professional development and student transportation to and from environmental learning experiences.



Plan written, not adopted

North Carolina – Big impacts for new programs

While North Carolina’s environmental literacy plan has yet to be adopted, North Carolina educators and administrators are using it to initiate change in the state. The plan has been used as a guiding framework for existing and new schools. When two Wake County elementary schools transitioned to environmentally-themed magnet schools, leaders used the plan as leverage to apply for grants and set up the school systems in locations where sea turtles thrive. These “Environmental Connections” elementary magnet schools are the first of their kind in the state.

The plan has been instrumental in helping to conceptualize and create these magnet schools; it served as a source for best practices in the schools as they created the project design for a Magnet Schools Assistance Program Grant, a federally-funded U.S. Department of Education grant.

The environmental literacy plan provided a foundation for multiple pieces of the grant proposal and included ideas for program exemplars, district-wide implementation, student engagement, and staff development opportunities. The plan also supplied the justification for the alignment of science and social studies standards and their implementation in all curricular areas. Wake County Public School System was awarded the 5-year, \$14.9 million grant in September, 2017.

The ELP continues to be a guide for both magnet schools. The plan’s section on Strategies to Support Model School Grounds and Facilities provides ideas on creating spaces and leveraging the resources of North Carolina for the good of the school and community. The plan has also been used by both private and public schools as a guiding document for the development of an environmental education curriculum. Even without formal statewide adoption, North Carolina’s environmental literacy plan is having a big impact.



Adopted and implementation
begun

Oregon – Plan improvement, resources drive implementation

Since 2014, the Oregon environmental literacy plan has been implemented through the Oregon Environmental Literacy Program (OELP), which is hosted at Oregon State University (OSU) Extension. The program focuses on specific projects that help advance the plan and environmental literacy across the state.

The OELP has hired a project coordinator who works with OELP teams that include staff at OSU Extension, as well as an environmental literacy Program Council and Regional Leads. The OSU Extension has staff who put dedicated time towards oversight and coordination. The Program Council consists of individuals representing different agencies and organizations working on OELP projects. Regional Leads are individuals organizing or sharing OELP information at regional meetings. The OELP project coordinator coordinates with each team on projects and communication surrounding environmental literacy.

The OELP has yielded a variety of projects to encourage and improve environmental literacy across the state. OELP's website includes resources and programs for educators, organized by grade level, location, and the Environmental Literacy Strands outlined in Oregon's plan. The OELP also has an Integration Framework Document that outlines environmental literacy at each grade level with connections to Social Studies and Next Generation Science standards, sample activities, and guiding questions. They have also drafted an Outdoor Learning Document that outlines the knowledge, skills, and strategies for taking K-12 students outside.

OELP continues to improve and enhance the plan, which did not contain a Diversity Education Initiative component when first written. A conversation is underway to explore what that might look like in Oregon. In addition, the program continues to engage new people and programs. Partners are working on common language around what environmental literacy means to different groups and how to reach groups that might not identify with the term environmental literacy, in order to grow and diversify the work across the state.



Rhode Island – Launch of statewide survey informs strategy and EE teaching

In 2017, with generous funding from both the Rhode Island Foundation and Pisces Foundation, the Rhode Island Environmental Education Association (RIEEA) launched a new strategic plan. Through the RI Assessment of Environmental Literacy project (RI-AEL), RIEEA aims to determine the environmental literacy of K-12 students in Rhode Island so that the organization can provide evidence to teachers, administrators, policymakers, and others to prioritize EE as an effective learning tool for both student achievement and environmental leadership development.

RIEEA's initial steps included identifying multiple sectors both within and outside of environmental education and developing an extensive and still growing list of organizations, agencies, individuals, and businesses whom they can support and learn from as they develop their assessment tool. RIEEA prioritized six sectors – Education, Environment, Health, Agriculture, Advocacy, and the Business community – and developed a marketing and outreach strategy as well as a new website to help them establish partnerships and connections throughout the state.

In early 2018, RIEEA launched a state-wide survey of all K-12 administrators and teachers titled, “Environmental Education: Inventory of Current Practices.” This survey was first piloted with a small group of educators and the feedback was instrumental to the final design. Data from this survey helps them understand how

teachers and administrators feel about EE, what EE looks like right now in Rhode Island's schools, and what teachers need to spread and better teach environmental literacy and will ultimately inform the RI-AEL tool.

In 2019, RIEEA hosted community forums for the six priority sectors they identified to support the development of the RI-AEL as well as gain a better understanding of the interests, priorities, needs, and challenges of six priority sectors in Rhode Island. RIEEA also engaged the support of Mass Audubon and EF Games, LLC to research and evaluate existing online environmental literacy assessment tools to determine which would be the most appropriate to use as the basis for an RI-AEL tool, and what modifications, if any, would be required to the existing platform to make that possible. RIEEA's next steps include piloting, finalizing, implementing, and sharing the AEL tool.

RIEEA staff imagine this assessment tool as a useful teaching tool, not as a burden to educators or another test to give. They have established an Advisory Council made up of numerous experts in education and research, as well as the state department of education, and are conceptualizing a teaching tool that will simultaneously help teachers meet those Next Generation Science Standards most closely aligned with environmental literacy while gathering information about student environmental literacy.



While approaches to development and implementation of statewide environmental literacy plans vary from one state to another, analysis suggests some common factors for successful advancement of ELP goals.

Relationships are key

All of the state-wide planning processes for environmental literacy rely on strong partnerships for creating and implementing plans that are bold and impactful. State and local agencies, nonprofit organizations, schools, EE associations, and program providers all have a role to play in advancing environmental literacy, and early engagement is important for broad support of an ELP.

Systemic environmental literacy is a long-term effort

Affecting change on a state-wide scale through environmental education requires persistence! First, achieving environmental literacy is a lifelong process that can't be accomplished by checking a series of boxes. It requires meaningful and interdisciplinary learning experiences over time, in both formal and informal settings. Additionally, advancing a statewide plan is also a long-term effort that requires ongoing engagement of a broad community of stakeholders.

Planning for K-12 and beyond

Because of the ongoing and complex nature of environmental literacy initiatives, successful state-wide ELPs rely on a variety of outcomes and strategies for marking progress. Plans rightfully recognize the opportunities for systemic change in K-12 settings, but they also reflect efforts to improve and expand EE in community-based settings for learners of all ages. Plans include objectives around nature-based play and early childhood, community health and wellness, and access to public spaces for outdoor learning and exploration.

Build support from the bottom up

Advancing a state-wide ELP is certainly made easier with the support of key leadership—a governor, secretary of education, or school district administrator, for example. But grassroots support is just as, if not more, essential for long-term success. Changes in leadership are inevitable and can bring dramatic shifts in support for environmental literacy initiatives. A strong network of supporters, advocates, and educators can ensure critical work continues and help to mitigate or counter a loss of focus or prioritization because of changes in leadership.

State Environmental Literacy Plans

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