



# Environmental Literacy in New Jersey: A Call to Action



## Section 5 Strengthening Statewide Structure and Support For Environmental Education in New Jersey

New Jersey's environmental education providers and practitioners, whether they operate at local, county, regional or statewide levels, are scattered geographically throughout the state in isolated towns, sprawling bedroom communities and busy metropolitan areas. While all of them operate independently, many are also involved in partnerships or in membership with others having similar goals and interests, such as through coalitions, councils and organizations.

Many of these networks, coalitions, councils and organizations focus directed efforts on such topics as conservation and land use, habitats and biodiversity, recycling and waste management, environmental quality, environmental justice, ecotourism and sustainability, to name but a few. Others cater to specific audiences, such as parks and recreation managers, environmental commissions, afterschool and pre-school programs, religious organizations, environmental health professionals and college and university campuses.

One activity these particular groups have in common is that they educate New Jersey residents – students, families, adults, teachers, employees, community leaders – about some aspect of the environment, as part of the means for achieving their mission. This educational process is environmental education and on a day-to-day basis, the educational services and resources provided by these groups helps facilitate environmental literacy among residents.

These groups, as well as individual providers, would benefit from being part of a responsive statewide system of structure and support for environmental education providers that is:

- Attuned to their activities and needs;
- Keeps them informed of state and national priorities in environmental education, formal education, environmental protection, and related fields;
- Promotes new resources, opportunities, research and enrichment;
- Encourages collaboration and partnerships and leveraging of funds;
- Communicates with them electronically;
- Promotes their efforts to the public through directories, networks and media; and
- Tracks and reports on select activities and accomplishments.

The establishment of a state level infrastructure to carry out initiatives like these is referred to as “capacity building.” According to the Environmental Education and Training Partnership:

***“Environmental education (EE) capacity building efforts strengthen organizations and individuals who are working toward the implementation and maintenance of comprehensive EE programs at state and local levels. EE capacity building efforts target leaders at state and local levels because these leaders have the ability to effect action to achieve comprehensive EE programs.”***

- ***Capacity Building for Environmental Education: How Does it Help Teachers?*** EETAP Resource Library (October, 1999, No. 57).

New Jersey has a basic infrastructure and services in place to support environmental education but this structure is being improved upon, especially during fiscally challenging times, in order to accommodate the functions being described. While the actions in this section suggest some new tasks to help achieve this, they primarily depend upon the existing staff or programs already being provided by the commission and work group, the State Departments of Environmental Protection, Education, the Alliance for New Jersey Environmental Education, or others.

One new initiative recommended in this section is the development and use of a New Jersey Environmental Literacy Plan (NJ ELP). The intent of this plan is to cultivate the environmental literacy of New Jersey students in grades pre-K-12. It is to be administered by the NJ Department of Education (DOE), supportive of the state's graduation requirements and core curriculum content standards, and part of a formal assessment system.

At the national level, the guidance and rationale for such state plan strongly supports New Jersey's vision for transforming education in New Jersey in the years to come, and states:

***“It is critical that every American understands how our community, economy and the environment are connected and mutually dependent. Environmental education prepares all citizens with 21<sup>st</sup> century essential skills that contribute to healthier, more environmentally sustainable, and economically prosperous communities.”***

- ***Developing a State Environmental Literacy Plan***, NAAEE (August, 2008).

If the federal ***No Child Left Inside*** bill is passed in 2009-10, the NJ ELP must be in place if New Jersey is to obtain federal funds from the federal Department of Education for specific environmental education uses, such as professional development, support for best practices and integration models, and other priority initiatives. The leveraging and collaborative use of these funds, in conjunction with other federal, state and private funds that collectively help further environmental education in NJ schools, would be beneficial during such constrained economic times. The cooperative interagency efforts of the commission and work group and their ability to engage with the localized work of NJ schools and individual environmental education providers would be both valuable and practical.

The NJ ELP will be a sub-set but yet a cornerstone feature of ***A Call to Action***. While the purpose of ***A Call to Action*** is to cultivate environmental literacy among NJ citizens of all ages and in both formal and informal instructional settings, the NJ ELP can serve as the guide for school-based environmental education initiatives conducted throughout NJ.

If the federal ***No Child Left Inside*** bill is not passed in 2009-10, the development and use of a modified NJ ELP regardless of federal support, would still provide valuable guidance for environmental education providers by helping to determine school-based priorities and activities in environmental education, showcasing DOE's existing efforts to advance environmental education in New Jersey schools, and providing support for the pursuit of grants and other funds. Though the scope of the NJ ELP would largely depend upon the fiscal support it receives long-term, even an unfunded version would provide schools and providers with a blueprint for environmental education delivery in grades pre-K-12 statewide.

The other new action recommended in this section is the development of a New Jersey initiative for getting children and families outdoors in nature, to compliment the nation's concerns with the physical

health and wellbeing of today's youth. Such campaigns already in place in other states depend upon the expertise, facilities and outdoor spaces administered by informal environmental education providers. Having a mechanism in place to conduct a program or campaign on this topic would be another cornerstone in *A Call to Action* and would provide support for the state's informal environmental education experiences that contribute towards environmental literacy.

As stated in previous sections, the strengthening of New Jersey's existing structure and support for environmental education as well as the undertaking of these new initiatives will occur during a challenging time, when the need for environmental education services is growing but the economy is severely restricted and staffing and resources are limited. The actions recommended in this section demonstrate sensitivity toward the state's economic challenges as well as its priorities and needs in education and environmental protection. They strive to better serve the needs of the state's environmental education providers through improved use of the existing infrastructure and state level commitments already in place, as well as the leveraging of state, federal and private resources being used to advance environmental education. These actions also improve upon the state's system for collecting and sharing information and data, whether it is findings from forums and research, the availability of grants, opportunities for enrichment, and the promotion of models and best practices.

As these actions are implemented over the next five years they will help unify and build on existing educational efforts, validate productive partnerships, encourage collaboration and planning based on priorities, and track certain results. These actions will also enable state leaders to more effectively coordinate environmental education activities between and within agencies as well as with other large-scale educational efforts in New Jersey.

As a result of these actions the ongoing work of the commission and work group, in cooperation with partners, will be more purposeful, relevant, responsive and effective. This strengthening of structure and support should, over the next five years, help align and improve environmental education activities and increase audience interest and participation in them throughout New Jersey.

Long-term, *A Call to Action* will help provide a more firm and supportive foundation for educators, scientists and other professionals to address the emerging needs and challenges of a changing global society and planet, while cultivating the environmental literacy of the state's present and future residents.

## **Recommended Actions for Strengthening Statewide Structure and Support For Environmental Education in New Jersey**

The actions recommended in this section outline the work to be performed in the next five years (2010 – 2015) by the commission and work group, in cooperation with the State Departments of Environmental Protection and Education, the Alliance for New Jersey Environmental Education, and other agencies, organizations and groups.

Most actions include background information, lead agencies, timeframe, tasks to be completed and anticipated outcomes. All actions are based upon the availability, participation and support of existing staff, services and programs in the groups mentioned. Should staff resources change in the future, then the work of the commission and work group would need to be reviewed and altered accordingly.

Recommendations from various models and reports were used as guidance and reference for the actions in this section. A list of these resources is provided in the appendices.

**Action #1: Develop and implement a five-year (grades pre-K-12) New Jersey Environmental Literacy Plan (NJ ELP) that provides a framework for New Jersey schools to expand and improve their environmental education programs.**

**Lead Agency:** NJ Department of Education  
NJ Department of Environmental Protection  
NJ ELP Advisory Team and others

**Timeframe:** 2009 – 2010 – development  
2011 – 2015 - implementation

**Background:** Development of, and priorities regarding, the NJ ELP will be overseen by a team of individuals led by the NJ Department of Education (DOE) and/or DEP with representatives from select organizations, agencies and institutions, as determined by federal NCLI statute and/or DOE. Scope and implementation of the plan would be determined by passage of the NCLI bill and related fiscal support received during the next five years. If the bill is not passed, DEP, the commission and work group would work with DOE to develop a modified NJ ELP blueprint, either by securing outside funds or by developing and using it through in-kind support.

Proceedings related to the NJ ELP would be discussed at commission and work group meetings and environmental education forums, posted at the commission web site and communicated to NJ environmental education providers. Methods for tracking or gathering key information related to the NJ ELP would need to be developed. As per the NCLI bill, DOE would be expected to report on NJ ELP activities and results. These reports would be shared by DOE and the NJ ELP team with the commission and work group and would be reported to leaders in state government, education, environmental protection, and environmental education, as well as to ANJEE members, as part of *A Call to Action's* communications and reporting process.

**Components of the NJ ELP could include (based on federal NCLI recommendations):**

- A. Identification of specific 2009 NJ Core Curriculum Content Standards (CCCSs) for all grades as well as HS course requirements necessary to develop environmentally literate students;

- B. Course details and assessment findings from HS environmental science course as well as environmental content embedded in other science courses and STEM initiatives, as they are aligned with NJ ELP CCCS goals;
- C. Goals, implementation and assessment findings from DOE Career and Technology Education Program to integrate environmental content and green practices into career program areas;
- D. Goals, implementation and assessment findings from DOE Career and Technology Education's agriculture, natural resource and environmental systems programs;
- E. Support for, and/or promotion of, curriculum resources and classroom programs that integrate environmental content and/or skills in grades pre-K-12 in all academic programs, including those for special needs students and districts in need of improvement, as they are aligned with NJ ELP CCCS goals;
- F. Support for, and/or promotion of, in-service professional development programs for teachers in grades pre-K-12 that integrate environmental content and/or skills in grades pre-K-12, as they are aligned with NJ ELP CCCS goals and DOE guidance for professional development;
- G. Support for, and/or promotion of, pre-service instruction and program models for teachers in training that integrate environmental content and/or skills in grades pre-K-12, as they are aligned with NJ ELP CCCS goals and DOE guidance for professional development;
- H. Support for, and/or promotion of, curriculum resources, classroom programs and professional development that integrate environmental content and/or skills in grades pre-K-12 in DOE service learning, after-school and early childhood education programs, as they are aligned with NJ ELP CCCS goals;
- I. Support for, and/or promotion of, professional development programs, resources and other assistance for NJ environmental education providers to develop or adapt their services and programs directed towards NJ schools so that they are aligned with NJ ELP CCCS goals;
- J. Methods for measuring and reporting on student progress regarding environmental literacy performance and achievement in grades pre-K-12; and
- K. Process for revising or updating the NJ ELP.

**Additional components of NJ ELP could include reports regarding:**

1. Collaboration with NJ green collar job and environmental career workforce development efforts for secondary students, as they relate to NJ ELP CCCS goals (DOE, NJ Department of Labor and Workforce Development, others);
2. Collaboration with the NJ Healthy Schools Network and inclusion of environmental health education and outdoor environmental education programs in their activities, as they relate to NJ ELP CCCS goals (DOE, NJ Health and Senior Services, others); and
3. Coordination of high performance (LEED) school building construction and operations activities with NJ ELP CCCS goals, NJ green school priorities, and involvement of local educators in school design and construction, in order to link green school design with curriculum and instruction (DOE, DEP, Schools Development Authority, others).

**Results from NJ ELP could:**

- Ensure that environmental education activities are aligned with student graduation requirements and help achieve state education goals;
- Ensure that environmental education is effectively integrated into formal education systems;
- Ensure that professional development (pre-service and in-service) opportunities in environmental education are aligned with state education goals in environmental literacy;

- Ensure that non-formal environmental education providers are involved appropriately and effectively in environmental education activities in schools; and
- Serve as a necessary component of a comprehensive state environmental education master plan designed for all ages.

**Action #2: Develop and implement a statewide initiative to promote, encourage and support nature-based outdoor experiences for children and families and establish a statewide leadership team that would guide and advance this statewide endeavor.**

**Lead Agency:** NJ Department of Environmental Protection (or other)  
Commission and Work Group, and others

**Timeframe:** 2009 – 2010 – development  
2011 – 2015 - implementation

**Background:** As described in previous sections, the public is concerned with the amount of time that young people spend indoors and/or using various forms of technology during their leisure time and the resulting consequences that such inactivity has upon their health and wellbeing. It is not common for children to be allowed or encouraged to explore nature or spend unstructured free or play time outdoors, especially in urban and more developed suburban areas. In informal discussions with environmental education peers, parents and youth, it is surmised that parents and guardians are more likely to stay at home indoors or take their children to the mall, theaters and adventure parks, rather than to a state forest or wildlife management area. This phenomenon is attributed to the following reasons:

1. They don't know where to go or how to learn about such places;
2. They don't know what to do if they go to such a place;
3. They have a fear of the unknown and can over-react or have misconceptions about outdoor hazards and related health and safety issues; and
4. They have limited or no previous experience themselves with nature.

As a result, many regions, states and municipalities are initiating programs or public campaigns that are designed to address these concerns.

**Components of this initiative could include:**

- A. Develop and maintain web site that could feature:
  1. Electronic calendar to showcase daily family and youth-oriented outdoor, nature programs held in NJ year-round and open to the public;
  2. Map of NJ that would feature geographic links to information about science and education facilities, nature centers, parks and open space properties that offer opportunities for outdoor exploration and nature investigations;
  3. Information for the public about programs, theme weeks and months, and resources that support getting people outdoors;
  4. Tips for parents and youth leaders for taking children outdoors;
  5. Information about research findings and benefits of getting people outdoors; and
  6. Feedback and data forms and e-mail list for communications with the involved NJ environmental education providers.
- B. Develop and/or promote enrichment opportunities for educators and parents that increase their knowledge, confidence and skills for taking children outdoors;

- C. Promote resources and expertise that encourage or support nature study, outdoor programs and outdoor spaces in the state's underserved communities, as well as in various types of instructional settings available to youth;
- D. Implement public education strategies that promote web site use to the public as well as to environmental education providers; and
- E. Track key information from participating educators and sites, regarding these programs.

**Results from this initiative could:**

- Increase public participation (families and children) in programs hosted on park and public lands that enhance their discovery and enjoyment of nature and natural resources;
- Increase public attendance at science facilities, museums, zoos and aquariums that provide nature and science-based activities for children and families;
- Increase opportunities for underserved communities to access and explore parks and public lands, especially in New Jersey's metropolitan areas;
- Increase opportunities for children to experience nature during after-school hours; and
- Increase public involvement with volunteerism and service learning opportunities on park and public lands.

**Action #3: Conduct a New Jersey Environmental Education Leadership Forum annually.**

**Lead Agency:** NJ Department of Environmental Protection  
 NJ Department of Education  
 Commission and Work Group, and others

**Timeframe:** 2010 and annually through 2015

**Background:** The purpose of the NJ Environmental Education Leadership Forum is to bring together professionals in environmental education, formal and higher education, non-formal education and environmental protection, to plan and discuss environmental education activities.

The forum agenda would include time for state leaders to share and discuss state priorities, trends, plans, funding issues, and resources. State leaders would also listen to updates from coalitions, organizations and providers about their plans, needs and accomplishments. Opportunities for collaboration would be discussed. Forum proceedings, findings and other information would be shared with NJ environmental education providers.

**Action #4: Develop and maintain a New Jersey electronic directory and/or searchable database of New Jersey environmental education providers.**

**Lead Agency:** NJ Department of Environmental Protection, with  
 Alliance for New Jersey Environmental Education  
 Commission and Work Group, and others

**Timeframe:** 2009 – 2010 – Development  
 2011 – Ongoing - Use

**Background:** New Jersey does not have a comprehensive electronic directory or searchable database that promotes environmental education resources for all ages, for use in formal and informal instructional settings. Such a collection would feature information and links for:

- **People:** Consultants, experts, speaker programs, trainers and professional development providers, organizations, companies, businesses, coalitions, networks, etc.;
- **Places:** Museums, parks, zoos, parks, nature centers, educational facilities, etc.; and
- **Things:** Curriculum packages, information and data sources, contests, awards, audiovisuals, software programs, etc.

**Components of this initiative could include:**

- A. Development of directory contents, design, format and means of operation;
- B. Inventory to collect and store data and information from NJ environmental education providers;
- C. Incorporation of data into the directory system;
- D. Promotion of directory to educators, families and the public at large; and
- E. Monitoring and tracking of directory use and ongoing updating of contents.

**Features and services of this directory could include:**

- Electronic searchable database or separate e-listings of resources, data and links;
- Companion resource publication for ANJEE members (as per grant for project);
- Marketing tools to promote new directory to users and EE providers (ads, articles, flyer, etc.);
- Methods (electronic and hard cc mail) to gather resource information for directory; and
- Means of establishing and maintaining the directory (host site costs, etc.).

**Action #5: Improve communications between environmental education providers by strengthening the electronic network between them (in cooperation with the Alliance for New Jersey Environmental Education).**

**Lead Agency:** NJ Department of Environmental Protection, with Alliance for New Jersey Environmental Education Commission and Work Group, and others

**Timeframe:** 2009 - Ongoing

**Background:** DEP compiles and circulates the *EEdNEWS* bimonthly e-mail listing (announcements regarding environmental education resources and initiatives) and the *EEdNEWS* electronic library. ANJEE maintains for its members electronic *ANJEE ONLINE* and *ANJEE ALERT* electronic announcements. In addition, DEP circulates announcements to numerous other e-mail lists to constituent groups interested in environmental education.

The strengthening of this information and dissemination network would include:

- A. Modify contents, design and delivery of *EEdNEWS* and the *EEdNEWS* e-directory, based on new priorities and needs in environmental education;
- B. Modify contents, design and delivery of *ANJEE ONLINE* and *ANJEE ALERT* based on new priorities and needs of ANJEE and/or its membership;
- C. Promote these services to all New Jersey educators and environmental education providers to increase and diversify these distribution lists; and
- D. Track the use of these services and update contents regularly.

**Action #6: Align the ongoing work of the NJ Commission on Environmental Education and Interagency Work Group to either directly, or through partnerships with others, carry out the activities described in this section and in support of their statutory charge.**

- A. Identify additional state employees to help implement specific tasks and/or committee activities;
- B. Promote and collaborate on the leveraging of state and federal funds when pursuing grants, use of in-kind state resources, and the potential pursuit of state revenue or other source of generated income to be used for environmental education;
- C. Pursue linkages between *A Call to Action* and the development or revision of other state plans that include some type of environmental education component;
- D. Conduct inventory of governmental programs, services, expertise and programs that support environmental education in New Jersey;
- E. Assist with developing and promoting the NJ environmental education electronic directory;
- F. Assist with the implementing and promoting the annual celebration of New Jersey Environmental Education Week and Earth Day;
- G. Assist with promoting *NJ EEdNEWS* service and announcements e-mail list; and
- H. Assist with developing year-end reports to be shared with leadership and constituents in government, education, environmental protection and environmental education.

**Action #7: Engage the Alliance for New Jersey Environmental Education to assist with the implementation of *Environmental Education in New Jersey - A Call to Action*.**

- A. Assist with development, implementation and follow-up for the NJ environmental education leadership forums;
- B. Provide enrichment and networking opportunities for NJ environmental education providers through annual state environmental education conference, regional meetings and programs;
- C. Provide professional development and promote resources for the NAAEE Guidelines for Excellence (for materials, programs and training programs) and promote resources and guidance for the evaluation and assessment of environmental education initiatives;
- D. Advocate for the delivery of environmental education for all ages in NJ by monitoring and reacting to federal and state legislation and policies that would effect the field;
- E. Monitor environmental education and natural history interpretation certification programs for formal and/or non-formal providers (nationally and in other states) and determine if, how and when such certification programs should be administered in New Jersey;
- F. Improve and maintain the communications network between ANJEE members through the use of *ANJEE ONLINE* and *ANJEE ALERT*; and
- G. Promote environmental education opportunities and information to the public by participating in the annual celebration of NJ Environmental Education Week and Earth Day and by promoting ANJEE services and initiatives, as appropriate.