

DRAFT

Goals and Objectives of the North Carolina Environmental Education Plan, 3rd Edition

Goal 1	Increase public participation in environmental awareness and education opportunities.
	<p>Objective 1.1: Improve public access to quality environmental education materials, resources and facilities.</p> <p>Action Items:</p> <ul style="list-style-type: none">• Expand the N.C. Office of Environmental Education's clearinghouse capabilities to reach a broader audience, including formal and non-formal educators, students, parents and the general public. Develop a searchable online directory of environmental education resources and market it statewide. Use Web site tracking and analysis tools to improve access to electronic resources.• Inventory and disseminate information about opportunities for environmental education professional development, internships and grants. Build and maintain an online calendar of events for all the environmental education activities in the state and an online directory of the state's Environmental Education Centers, grants and job openings.• Provide an online listing of organizations, individuals and resources that support environmental education. Identify and use electronic mailing lists to disseminate information.• Disseminate materials and resources to the public, including targeted audiences in rural and low-income regions of North Carolina. <p>Objective 1.2: Increase the public's use of North Carolina's Environmental Education Centers.</p> <p>Action Items:</p> <ul style="list-style-type: none">• Support and promote existing and developing Environmental Education Centers in North Carolina through effective consultation and marketing.• Identify and use opportunities to assist Environmental Education Centers and environmental providers in working with the media.• Assist Environmental Education Centers and environmental education program providers with promotion and marketing tools for their events, workshops and professional development opportunities through the N.C. Office of Environmental Education's Web site, electronic mailing list and newsletter.• Provide a frequently updated guide to North Carolina's Environmental Education Centers in print format and market and distribute it statewide to educators and the general public.• Ensure that Environmental Education Centers communicate with one another to identify opportunities to coordinate their programs to benefit the centers and their customers.• Support the N.C. Association of Environmental Education Centers. Explore

	<p>the establishment of voluntary standards for Environmental Education Centers.</p> <ul style="list-style-type: none"> • Facilitate sharing of information among Environmental Education Centers, schools, the media and the general public. Provide information and resources to teachers and schools on how to safely take children outdoors for hands-on environmental education. • Provide information to schools on how they can partner with Environmental Education Centers to meet curriculum requirements and encourage the use of local centers. <p>Objective 1.3: Increase awareness of environmental education events and promote opportunities statewide.</p> <p>Action Items:</p> <ul style="list-style-type: none"> • Market environmental education resources, materials and facilities to educators, students, parents, business and industry, government agencies, non-profits, the academic community and the general public. • Focus marketing strategies on the N.C. Office of Environmental Education’s online clearinghouse, including the calendar and the searchable directories for events, resources and facilities. Market environmental education events, tailoring publicity to a variety of audiences. • Market the N.C. Office of Environmental Education's Web site, using various media to reach culturally and socioeconomically diverse audiences. Market the online searchable directories for Environmental Education Centers, events and resources. • Develop key media contacts and methods for regularly corresponding with them. Develop relationships with reporters and other media contacts to better promote environmental education. Recognize and publicize exemplary media coverage of environmental education activities and information on the N.C. Office of Environmental Education's Web site. • Become a media source for environmental education through the use of newsletters, RSS feeds and other communication methods. • Use social marketing techniques and research to target appropriate audiences. • Promote the use of art and health objectives in environmental education programs to engage different audiences.
Goal 2	Strengthen the environmental education profession, elevate the status of environmental education professionals and improve the quality of environmental education materials and programs.

Objective 2.1: Increase public understanding of the value of environmental education and increase support for the field of environmental education.

Action Items:

- Track national and international environmental education policies and trends and evaluate their effects on environmental education in North Carolina. Establish North Carolina as a leader in nationwide environmental education practice and policy.
- Recognize people and organizations that provide exceptional environmental education. Promote environmental education projects and programs and exemplary environmental educators to the media and to legislators.
- Foster the development of undergraduate and graduate environmental education degree programs. Use institutions of higher education that have environmental studies programs as models for others that are interested in developing similar programs. Support inquiry-based, interdisciplinary instruction in environmental studies programs.
- Build a membership of the N.C. Environmental Education Advisory Council that is representative of the state's environmental education stakeholders and solicit their expertise to better promote the N.C. Office of Environmental Education and environmental education in North Carolina.
- Educate legislators about the importance of environmental education in fostering environmental ethics.
- Promote the N.C. Office of Environmental Education and the educators who complete the N.C. Environmental Education Certification Program. Invite legislators to attend environmental education events and meetings in their area.
- Provide materials and programs that explain environmental education for target audiences.
- Investigate the possibility of the Office of State Personnel creating a job family for environmental educators.
- Build a consortium of state-level environmental education offices throughout the nation and communicate regularly with these agencies through electronic mailing lists.

Objective 2.2: Increase the number of students pursuing environmental careers and strive for more cultural, economic and geographical diversity among students pursuing those careers

Action Items:

- Collaborate with other organizations and colleges and universities to promote diversity in the field.
- Identify research and programs that address diversity and environmental education. Provide this information to environmental educators and to the public through the N.C. Office of Environmental Education's Web site.
- Identify barriers to participating in environmental education and methods to overcome these barriers.

Objective 2.3: Increase awareness of and the use of environmental education professional standards for North Carolina educators.

Action Items:

- Correlate the North Carolina Standard Course of Study to the North American Association for Environmental Education's PreK-12 *Guidelines for Learning*.
- Promote the North American Association for Environmental Education's *Guidelines for Excellence* to environmental educators across the state. Facilitate environmental educators' completion of training on the *Guidelines for Excellence* and their use of the *Guidelines for Excellence* when developing or revising environmental education workshops or curricula.
- Incorporate the North American Association for Environmental Education's *Guidelines for Excellence* into the N.C. Environmental Education Certification Program requirements.
- Work with stakeholders and key partners to assess the N.C. Environmental Education Certification Program and incorporate changes that raise the standards for certifying environmental educators.
- Seek accreditation for the N.C. Environmental Education Certification Program from the North American Association for Environmental Education.
- Incorporate training in instructional methodologies for educators seeking to earn Environmental Education Certification. Provide networking and partnership opportunities for formal and non-formal educators.
- Incorporate knowledge of the foundations of environmental education into the N.C. Environmental Education Certification Program.
- Promote resources on practicing developmentally appropriate education.
- Promote the use of the North American Association for Environmental Education's *Guidelines for Excellence* by non-formal program providers and provide opportunities for training on how to use the guidelines.
- Assess the needs of educators and incorporate changes into the N.C. Environmental Education Certification Program that reflect environmental education standards and best practices in education.

Objective 2.4: Increase communication and coordination among environmental education professionals.

Action Items:

- Provide networking opportunities for environmental educators, such as forums and conferences.
- Conduct regular meetings for N.C. Department of Environment and Natural Resources employees with an interest in education and/or outreach.
- Promote opportunities for networking offered by organizations statewide.
- Facilitate environmental education events that showcase the resources and materials available to educators and other environmental education professionals.

Objective 2.5: Provide and improve the availability of model environmental education library collections for North Carolina educators.

Action Items:

- Develop an environmental education library collection that serves as a model for school, university and public libraries throughout North Carolina. Provide support for those libraries to develop their own environmental education collection.
- Develop a formal document that outlines the N.C. Department of Environment and Natural Resources Library's role in the Department and its relationship to the Department's divisions.
- Develop the N.C. Department of Environment and Natural Resources Library as a resource for environmental educators, department employees and the general public and support educational initiatives throughout the Department.
- Identify, create and contribute to repositories for the N.C. Department of Environment and Natural Resources Library's environmental education and natural resource collections.
- Develop and expand the N.C. Department of Environment and Natural Resources Library's collection through cooperative efforts among government agencies, industry and other organizations.
- Expand awareness of the N.C. Department of Environment and Natural Resources Library through Web sites, clearinghouses, newsletters and conferences.
- Provide age-appropriate resource guides and research tutorials that expand the ability of teachers and students to find environmental education resources.
- Develop environmental education bibliographies for specific audiences, including formal and non-formal educators at all grade levels.

Goal 3	Strengthen North Carolina's ability to provide sustainable and comprehensive environmental education programs.
	<p>Objective 3.1 Increase the number of leaders and organizations that provide quality environmental education across the state.</p> <p>Action Items:</p> <ul style="list-style-type: none"> • Increase the number of environmental educators in North Carolina who complete the N.C. Environmental Education Certification Program. Advertise the program to formal and non-formal educators statewide. • Publicly recognize educators who complete the N.C. Environmental Education Certification Program. Increase their media and political exposure. • Provide support and resources for program providers interested in offering environmental literacy programs to formal and non-formal educators. • Provide incentives for personnel at parks, forests, zoos, museums, aquariums and other environmental education facilities that regularly interact with the public to participate in environmental education professional development. • Provide environmental education program providers with resources to train scientists on how to use environmental education techniques to effectively engage the public. • Survey universities and colleges to determine if and how environmental literacy and ethics are included in coursework. Determine ways to incorporate environmental education and environmental ethics into higher-education public administration and public policy programs. • Create an interagency working team of educators to enhance the Department of Environment and Natural Resources environmental education efforts. • Support statewide gatherings of college and university faculty, N.C. Department of Public Instruction curriculum and licensure consultants, PreK-12 teachers and curriculum coordinators, museum and science center educators, non-formal environmental educators, and government and private organization representatives to discuss improvement of environmental education programs and course offerings at the state's institutions of higher learning. • Support environmental education efforts of state and local government. • Partner with local governments, community groups and businesses to set environmental education goals, evaluate achievement of these goals and provide recognition for communities that demonstrate environmental stewardship. • Serve as a resource for local, state and federal government agencies that are developing their education programs. • Create an online directory of environmental education schools that have agreed to serve as models for other schools. Publicize the directory to schools and school districts throughout the state.

Objective 3.2: Assess and evaluate environmental education and environmental literacy in North Carolina.

Action Items:

- Develop and administer a statewide survey of environmental literacy in partnership with a market research institution or secondary education institution. Establish a baseline for environmental literacy among North Carolinians and conduct follow-up surveys to measure improvements in literacy.
- Publicize results of environmental literacy surveys through a variety of media outlets and to local, state and federal government agencies and the N.C. General Assembly.
- Provide schools with tools to measure the effects of integrating environmental education into curricula and on academic achievement, including before-and-after evaluations of academic performance and behavioral/attitude change.
- Provide resources to enable undergraduate and graduate students to research the impact of integration of environmental education in schools. Promote environmental education as a potential research topic for undergraduate and graduate projects at universities and colleges.
- Promote as models for other organizations any Environmental Education Centers and regional organizations that have effectively evaluated and measured their environmental education achievements and their economic, social and cultural impact on their local communities.
- Provide a forum for communities to network to share opportunities and successes in measuring and promoting environmental stewardship. Build partnerships among communities and local and regional Environmental Education Centers and organizations that provide environmental education programs on ecotourism, sustainable development and public awareness.
- Market reports, surveys and research in environmental education to diverse agencies and organizations to demonstrate how environmental education can help them accomplish their goals.
- Provide models and promote the use of effective methods and tools for measuring the effectiveness of environmental education.

Objective 3.3: Increase funding for environmental education.

Action Items:

- Use statewide assessments of environmental literacy and report cards of progress in environmental education to demonstrate a need for additional environmental education funding at the local, state and federal levels.
- Work with the N.C. Department of Commerce and regional tourism entities to promote Environmental Education Centers and environmental education experiential programs as ecotourism destinations and sustainable tourism destinations. Encourage these entities to increase funding for these centers and programs.
- Establish an Environmental Education Trust Fund or other sustainable

	<p>source for increasing funding for environmental education at PreK-12 schools, Environmental Education Centers, public libraries, and universities and colleges.</p> <ul style="list-style-type: none"> • Award grants from an Environmental Education Trust Fund to schools, communities and organizations that support and promote environmental education in North Carolina. • Work with business and industry, civic organizations, and foundations and the NC Environmental Education Fund to support environmental education programs. • Develop and provide an online directory of grant opportunities and publicize this information through the N.C. Office of Environmental Education's Web site, electronic mailing list and newsletter. • Provide statements of support and research and information to those seeking grants. Promote training in grant writing to the environmental education community. • Market and promote environmental education to N.C. Department of Environment and Natural Resources divisions, legislators and key leaders in the academic community. • Develop partnerships with organizations to increase funding for environmental education. • Work with the N.C. Association of Environmental Education Centers to establish partnerships between Environmental Education Centers and local businesses and civic organizations to fund local environmental education programs and projects. <p>Objective 3.4: Increase participation of non-formal educators in environmental education professional development programs.</p> <p>Action Items:</p> <ul style="list-style-type: none"> • Publicly recognize educators who complete the N.C. Environmental Education Certification Program. Increase media and political exposure of certification program. • Facilitate networking/ professional development opportunities in partnership with other agencies and organizations. • Improve marketing and communication to inform educators of professional development opportunities in environmental education.
Goal 4	Increase the number of educators and students who receive environmental education.
	<p>Objective 4.1: Integrate environmental education into PreK-12, college and university curricula.</p> <p>Action Items:</p> <ul style="list-style-type: none"> • Develop a State Environmental Literacy Plan for North Carolina's PreK-12 public schools in partnership with the NC Department of Public Instruction and key stakeholders and partners. • Promote schools that have successfully integrated environmental education

across all disciplines—e.g., math, science, social studies, language arts and art—as an effective method for strengthening the entire curriculum. Target low-performing schools and ask these schools to document measures of success achieved after integrating environmental education into curricula.

- Promote environmental education to schools as a method for encouraging physical activity and a healthy lifestyle. Provide information and resources to schools on ways they can integrate environmental education into their Healthful Living curriculum and healthy school initiatives.
- Promote environmental education to schools as a method for engaging students in science and encouraging careers in science, mathematics and technology. Target underserved communities.
- Promote model schools that use environmental education to stimulate creative thinking in art and creative writing curricula. Inform teachers of books and other resources on ways environmental education can be integrated into language arts and art. Target underserved communities.
- Provide resources, training and support to schools for developing outdoor classrooms and using their school grounds for teaching across curricula. Identify funding to provide grants to schools for the development of outdoor classrooms and "edible gardens" on school grounds and provide resources to teachers who want to incorporate outdoor classrooms and gardens into their curricula.
- Provide resources for teachers for taking their students outdoors and feeling comfortable using the outdoors in their curricula. Highlight the benefits of using the outdoors across curricula for both students and teachers.
- Use and promote research to district and state-level school administrators and local superintendents and principals that documents the benefits of integrating environmental education into the state's curricula. Highlight the correlation between the integration of environmental education and improved academic achievement.
- Recognize schools and school systems that are models for promoting environmental education and that have significant teacher participation in environmental education professional development programs. Recognize schools that integrate environmental education into their curricula, participate in conservation measures, achieve a high level of community involvement and implement natural landscape improvements at their school. Develop and promote an online database of these schools.
- Track changes to state and national education policies and inform the N.C. Department of Environment and Natural Resources and non-formal education organizations about changes in policies and other educational trends that may affect environmental education.
- Provide resources and staff to help environmental education providers to correlate their environmental education activities and curricula with the North Carolina Standard Course of Study.
- Provide input on the North Carolina Standard Course of Study, curricula revisions and support documents. Provide input on national standards. Ensure that environmental content and environmental education concepts are included in the Standard Course of Study.

- Promote the use of environmental education in after-school programs.
- Expand resources to enhance early-childhood environmental education.

Objective 4.2: Increase opportunities for pre-service teachers to be trained in environmental education pedagogy and to learn appropriate outdoor teaching techniques.

Action Items:

- Develop stronger relationships with colleges, universities and community colleges. Meet with Schools of Education within universities and communicate the benefits of integrating environmental education into pre-service curricula.
- Demonstrate the need for Schools of Educations to modify pre-service courses and programs to include the following components: environmental topics and classroom curricula; hands-on and inquiry-based learning opportunities; use of local environmental and community resources; field trip experiences; outdoor teaching techniques and experiences; and interdisciplinary environmental themes, including social studies, science, mathematics and the arts.
- Provide institutions of higher education with information about environmental education resources available from state agencies, Environmental Education Centers and other sources and how these resources can benefit their students.
- Develop and promote a directory of colleges and universities offering environmental education minor and major degree programs, courses and resources and identify departmental contacts at universities and colleges.
- Participate in the North American Association for Environmental Education (NAAEE) Pre-Service Environmental Education Task Force to help define the relationship between NAAEE and the National Council for Accreditation of Teacher Education (NCATE). Use the NAAEE/ NCATE relationship to enhance pre-service environmental education for teachers in North Carolina.

Objective 4.3: Increase participation of PreK-12 educators in environmental education professional development programs.

Action Items:

- Provide tools and resources for colleges and universities to offer professional development opportunities in environmental education. Meet with staff of public and private colleges and universities and demonstrate a need for these schools to increase their courses/programs for formal and non-formal educators.
- Develop financial support and administrative support for PreK-12 teachers to participate in environmental education professional development and to incorporate environmental education into their curricula.
- Publicly recognize educators who complete the N.C. Environmental Education Certification Program. Increase media and political exposure.

- Facilitate networking/professional development opportunities in partnership with other agencies and organizations.
- Improve the N.C. Office of Environmental Education's communication with Local Education Authorities and work with their professional development coordinators to publicize environmental education opportunities.
- Ensure that professional development opportunities in environmental education count toward teacher certification renewal credits.
- Improve marketing of professional development opportunities in environmental education to educators.

Objective 4.4: Increase access to quality environmental education resources.

Action Items:

- Develop and distribute an Educator’s Guide to Environmental Education Resources and Materials.
- Form an education advisory group consisting of teachers at different grade levels and university staff working with pre-service teachers. Conduct focus groups of teachers to determine their needs and how to better reach educators.
- Build partnerships and communication among institutions of higher learning, Environmental Education Centers and program providers to help teachers obtain new content knowledge to increase the number of educators participating in workshops at Environmental Education Centers.
- Package and provide a sampling of environmental education activities and resources to teachers as an introduction to environmental education and specific topic areas.
- Collaborate with LEARN NC (www.learnnc.org) to ensure that environmental education activities are available and accessible through its online database of lesson plans for teachers.
- Provide bibliographies of quality environmental education books, journals, videos, CDs and other resources and provide access through the N.C. Office of Environmental Education's Web site.

Goal 5

Increase the environmental literacy of adults.

Objective 5.1: Design targeted marketing and education campaigns that highlight the interconnectedness of environmental health, human health, sustainable practices (agriculture, development etc.) and economic vitality.

Action Items:

- Develop partnerships with health organizations to promote Environmental Education Centers as places to get outdoors and be active.
- Educate the public about their choices as consumers through consumer education initiatives. Continue to incorporate local farms and Community Supported Agriculture programs into the consumer education initiatives. Use media campaigns to reach adult audiences.
- Increase the extent and effectiveness of adult environmental education efforts by emphasizing how environmental issues are relevant to public

health and quality of life.

- Use environmental education to emphasize the connections between food production and human and environmental health.
- Form partnerships with health- and agriculture-based organizations to increase the number of schools that provide healthy and sustainable food choices. Develop partnerships with organizations such as the N.C. Cooperative Extension Service, N.C. Division of Soil and Water Conservation, N.C. Department of Agriculture and Consumer Services and N.C. Department of Health and Human Services.
- Develop public education programs that demonstrate how individual behaviors and daily choices are related to a healthy life and healthy environment.

Objective 5.2: Generate and market public education programs and materials that address current environmental concerns in North Carolina.

Action Items:

- Inventory adult environmental education programs and promote them through the N.C. Office of Environmental Education's Web site, electronic mailing list and newsletter. Include adult education programs in the online calendar of events.
- Promote partnerships between the public and private sectors to provide adult environmental education programs, initiatives and community outreach.
- Build on the successful river basin program by finding new and innovative ways to engage adults. Promote recreational opportunities as a way to increase adult participation in environmental education and increase environmental awareness. Emphasize the health benefits of time spent outdoors
- Provide resources and N.C. Office of Environmental Education staff support to program providers to adapt existing environmental education curricula for adults and assist providers in marketing these opportunities to the public.
- Provide and publicize environmental education resources to state government employees as a part of their orientation and professional development. Explore cooperative agreements with departments and divisions of state government to incorporate environmental education principles and concepts into personnel training. Support educational programs for government employees that improve understanding of emerging environmental issues.
- Provide resources to faith-based organizations, neighborhood associations and parent organizations interested in providing environmental education.
- Market environmental education programs specifically to parents.

Objective 5.3: Increase the use of environmental education as an effective environmental management tool.

Action Items:

- Collaborate with the N.C. Department of Environment and Natural Resources divisions, N.C. Department of Transportation, N.C. Wildlife Resources Commission and other state agencies to incorporate environmental education into environmental management efforts. Explore similar partnerships with other local government agencies and federal agencies.
- Consult with government entities, non-profits and businesses on ways to use environmental education in conservation and environmental management plans and programs.
- Promote successful models for programs that use environmental education as a critical component of their environmental management efforts.
- Encourage universities and colleges to offer environmental education courses/workshops for adults.
- Coordinate training for local and state employees using environmental education techniques.