

LEADING THE WAY TO ENVIRONMENTAL LITERACY AND QUALITY: NATIONAL GUIDELINES FOR ENVIRONMENTAL EDUCATION

By Edward J. McCrea

WHAT DO A CABINET LEVEL AGENCY IN THE STATE OF KENTUCKY, AN ENVIRONMENTAL EDUCATION ASSOCIATION IN UTAH, AND A WISCONSIN COMPANY WORKING TO “GREEN” THE EMPIRE STATE BUILDING HAVE IN COMMON? THEY ARE ALL USING THE NATIONAL GUIDELINES FOR EXCELLENCE IN ENVIRONMENTAL EDUCATION TO ENHANCE ENVIRONMENTAL LITERACY IN THE UNITED STATES. READ ON TO FIND OUT HOW.

The North American Association for Environmental Education (NAAEE) developed the Environmental Education Guidelines Project as part of efforts to promote excellence in environmental education. The goal of the Guidelines is to further an environmental education process that leads to environmentally literate citizens who can compete in our global economy; have the skills, knowledge, and inclinations to make informed choices; and exercise their rights and responsibilities as members of the global community.

“The Guidelines provide the method to **MAKE ENVIRONMENTAL EDUCATION PART OF EVERY ONE’S LIVES** so we have an environmentally literate society. From early childhood, to integrating EE across the curriculum, to helping us select instructional materials, the Guidelines are our tools.”

-Brian Day, Executive Director, NAAEE

WHAT PUBLICATIONS MAKE UP THE GUIDELINES SERIES?

Presently seven documents make up the written materials for the Guidelines for Excellence Project.



Photo provided by Edward J. McCrea

The guidelines series is made up of a diverse array of publications.

Two of these publications set a baseline for environmental literacy and cover what every student should learn between early childhood and 12th grade in order for them to have a basic grounding in the environment and environmental issues.

These guidelines facilitate the teaching of science, civics, social studies, mathematics, geography, language arts, etc. They help educators develop meaningful education programs that integrate instruction about the environment across the curriculum and assist educators in achieving the educational standards set for the core disciplines.

Other guidelines deal with environmental education materials and programs. These guidelines and their companion documents serve as essential tools for the development of balanced, scientifically accurate, and comprehensive environmental education programs and materials.

Another set of guidelines covers the preparation and continuing education of classroom teachers and other environmental educators.

Together, the guidelines documents provide an innovative and practical foundation for ensuring excellence in environmental education.

- Early Childhood Environmental Education Programs: Guidelines for Excellence
- Excellence in Environmental Education: Guidelines for Learning (K-12)
- Excellence in Environmental Education: Guidelines for Learning (K-12) Executive Summary and Self Assessment Tool
- Guidelines for the Preparation and Professional Development of Environmental Educators
- Nonformal Environmental Education Programs: Guidelines for Excellence
- Environmental Education Materials: Guidelines for Excellence
- Environmental Education Materials: Guidelines for Excellence Workbook (available online only)

WHY WERE THE GUIDELINES DEVELOPED?

The NAAEE guidelines project began in 1993. I was then Executive Director of NAAEE and mentioned to Dr. Bora Simmons that there were several projects with which we could use help. Dr. Simmons had a sabbatical from her university and was interested in undertaking a project that would help NAAEE and the field of EE. One project involved assisting with our international training courses, a second project had to do with fundraising activities, and the third project was the development of standards for environmental education.



As I remember it, Dr. Simmons was intrigued by the international training project, but felt that the standards project was of more value to the environmental education community. As part of her sabbatical, Dr. Simmons conducted extensive research on the then ongoing process to produce standards for the core curricular subjects in the United States. She produced a compelling summary and recommendations as to how NAAEE could ensure that environmental education became an active part of the national standards movement.



“As I remember it, Dr. Simmons was intrigued by the international training project, but felt that **THE STANDARDS PROJECT WAS OF MORE VALUE** to the environmental education community.”

After discussions with the NAAEE Board of Directors and procurement of funds from several sources, NAAEE launched the project with the publication of *Environmental Education Materials: Guidelines for Excellence* in 1996. (In 1995, the Environmental Education and Training Partnership, became a long-term partner in producing the guidelines.) Since 1996, the other volumes in the series have followed at a steady pace – all under Dr. Simmons’s guidance.

“...more than **2500 EDUCATORS** and interested others had participated in development of these guidelines.”

In laying out a work plan, Dr. Simmons recognized the three main needs that the guidelines could fill:

1. Ensure that environmental education was not left out of the national educational standards movement then gaining momentum. Each of the core curricular standards that were being developed under the guidance of the U.S. Department of Education was by definition, focused in only one area. The science standards could be expected to cover much of the content of environmental education. However, it was obvious that none of the core curricular standards would incorporate the entirety of the multifaceted, cross-curricular world that is environmental education. We needed standards for environmental education to bridge the gaps between and among the core curricular areas.



Photo provided by Harry Spillman, Spillman Photography

The guidelines bridge gaps between core subject standards to help ensure that educators are well prepared for standards based education.

The Department of Education eventually decided that producing official government standards for environmental education would likely be too controversial and difficult to accomplish. However, NAAEE elected to proceed. We decided to call our documents “guidelines” to avoid confusion with the other national standards. While lacking the official status of the national standards, the guidelines could still fill the role of bridging the gaps between the other official core area standards.

Dr. Simmons first produced *Environmental Education Materials: Guidelines for Excellence* in response to a clearly felt need in the field. Then, as the various organizations began to roll out drafts of the core standards, she reviewed each one and selected those standards that were related to environmental education. She next added new standards as needed to reflect environmental education’s breadth and multi-curricular strengths. Dr. Simmons circulated multiple drafts of the developing guidelines to NAAEE members and other stakeholders. Before the project was completed, more than 2,500 educators and interested individuals had participated in development of what was to become *Guidelines for Learning K-12*. (A similar participatory model was used in the production of the other guidelines.)

2. Help create coherence and unity in the field. The EE field is extremely diverse. That diversity is a strength in many respects, but it makes for difficulty in explaining to other educators and potential funders what environmental education is, why it should be done, how it is done, and who is doing it. The guidelines that Dr. Simmons, the NAAEE staff, and its board of directors envisioned could help to promote unity, a common language, and support the professionalization of the field.

3. Ensure that environmental education was founded in fact, encompassed the best in educational techniques and philosophies, and was taught by educators with superior knowledge and skills. The NAAEE board of directors felt that for environmental education to be effective and well received by educators, parents, and decision makers, it must be relevant, scientifically sound, and unbiased. To help achieve this goal, NAAEE pursued the guidelines project vigorously. The goal was to provide the backbone and tools to ensure that the environmental education field could embrace critical scrutiny with high marks and make improvements where deficiencies were found.

HOW HAVE THE GUIDELINES MADE A DIFFERENCE?

Educators use the guidelines in a wide variety of ways. They use them in staff training:

At the Outdoor School at Rancho Alegre (Santa Barbara, CA), the guidelines are a standard part of staff training, program content review and updates, as well as program marketing.

- Eric Carpenter, Principal, Rocky Mountain Education Design (formerly Education Director, The Outdoor School at Rancho Alegre)

They use them to assess gaps in programs designed to enhance or develop environmental literacy:

As the US Forest Service's Eastern Region Conservation Education Program Coordinator I used the Nonformal Program Guidelines to aid in the review of a draft strategic plan for conservation education developed by a National Forest in the mid-west. I found the guidelines to be quite useful in helping to organize my review and in offering suggestions for improving the strategic plan.

Don Howlett, Eastern Region Conservation Education Program Coordinator, US Forest Service

The guidelines also have a use in demonstrating to prospective funders that a program is educationally sound:

As a reviewer of EPA EE Grants (Region 2) and NOAA's BWET grants, I have been quick to point out to those submitting proposals that their proposals would be much more comprehensive and "scholarly" by mentioning use of the guidelines in two or three sentences, as a tool for enhancing the overall impact of their proposals.

Frederick W. Stoss, Associate Librarian, University at Buffalo-SUNY

In addition, many educators use the guidelines as they develop new educational materials:

I'm currently using the guidelines in a collaborative effort with the teachers of Coathuasi, Peru, and an NGO called

AEDES to develop new environmental education materials about environmental change in the Andes Mountains. I have provided them with a Spanish language version of the Materials Guidelines and am facilitating the process of materials development with the guidelines concepts as our guide. Environmental monitoring and environmental education are of critical importance in this region, where climate change is having visible and dramatic impacts on the environment and people of the region.

Deb Wojcik, Doctoral Student, University of Florida

It might be noted that in addition to the Peruvian example above, the guidelines have been used in the development of university coursework, program development, and curriculum development in countries around the world, including Japan, Jordan, Korea, Madagascar, Mexico, Philippines, and Taiwan.

However they are used, the guidelines have proven themselves repeatedly to be valuable tools for helping everyone concerned about environmental quality and environmental literacy do their jobs better.

The following examples provide a more detailed look at a few of many "success stories" relating to the use of the guidelines.



The Kentucky Environmental Education Council has made extensive use of the guidelines in its programs.

KENTUCKY EE COUNCIL

The Kentucky Environmental Education Council is a state agency located in the Education Cabinet. It was established to "improve Kentuckians' understanding of their environment." One of the activities of the council is to produce a plan to improve environmental education in Kentucky every five

years. The latest (2009) version, titled "Land, Legacy, and Learning," shows how the guidelines (referred to in the plan as "National Standards") provide a foundation for Kentucky's environmental education programs:

Recommendation three in the 2004 plan called for all environmental education materials, content and programs in the Commonwealth to be based on state and/or national standards for what students should know and be able to do. Starting with the endorsement for teachers and the certification program for non-formal environmental educators, which are both based on the national EE standards and moving to the Kentucky Program of Studies and Core Content for assessment, virtually all environmental education in the Commonwealth is now aligned to a set of rigorous academic standards.

The council also uses the guidelines as the basis for its two certification programs. Through attending four workshops and completing an independent study project, Kentucky's educators at nature centers, government agencies, and nongovernment organizations can gain certification in environmental education. The course of study includes extensive work from all of the national environmental education guidelines publications.

Classroom teachers can have an endorsement in environmental education added to their teaching certificate by taking three to four college level courses. Again, coursework included under the certificate endorsement program is built on the foundation provided by the national environmental education guidelines. Quoting Jane Eller, former Executive Director of the council:

The common goals and structure of the national environmental education guidelines help give environmental education credibility as an area of specialization. The guidelines also help educators and administrators see that environmental education is not just science education or ecology—it is an integrated, multidisciplinary area of study that can help link core disciplines covered by the Kentucky education standards.

For more information on the
KENTUCKY PROGRAM,
visit the council's website: <http://keec.ky.gov/>



Photo provided by Sheila Williams Ridge

It's never too early to encourage environmental literacy.

“They [the guidelines] not only help shape our programs, but LEND FURTHER VALIDITY AND STRENGTH TO OUR PROGRAMS AND ORGANIZATION, as well as the entire field of environmental education.”

Andree' Walker, Executive Director, USEE

UTAH SOCIETY FOR ENVIRONMENTAL EDUCATION

The Utah Society for Environmental Education (USEE), a professional association for environmental educators in Utah, is also making extensive use of the guidelines.

Training for newcomers to the field such as Americorps volunteers or seasonal naturalists follows the guidelines. USEE staff feels that the guidelines contain the core of what everyone in the field should know when they begin to teach. But it doesn't stop there. USEE uses the Materials Guidelines to review environmental education materials. The purpose behind conducting these reviews is to evaluate the quality of environmental education publications and activities. However, USEE's Executive Director, Andree' Walker, feels that the review experience itself is very important. By participating in the review process, all of the reviewers gain a better feeling for the attributes that high quality environmental education materials have in common.

Following this thread of improved competency for environmental educators, USEE, like the Kentucky Environmental Education Council has developed a certification program for environmental educators based on the guidelines. The program works at two levels – provisional certification for those who have just entered the field and lack extensive experience and full certification for those with more experience to back up the academic background they may have acquired in college.

USEE staff feel that their certification program may have reached the “tipping point.” It appears that the majority of environmental educators in Utah are realizing the benefits of becoming certified. In addition, employers in the field are beginning to look for certified environmental educators in their job searches.

Walker pointed out that in addition to the obvious benefits to the individual being certified, the program also has benefits for USEE as the certifying agency. The national guidelines give USEE greater visibility and credibility as it administers a certification program. In addition, USEE is being seen by many younger environmental educators as relevant to their needs and interests. There is some evidence that certification is pushing membership increases for USEE. The nominal fees assessed as part of the certification program approximately cover the cost of administering the program. So, USEE can provide a service to the state's environmental educators that also benefits the society with little to no drain on the organization's resources.

USEE also is using the guidelines to help its state education agency complete an environmental literacy plan for Utah. When first considering how to provide

input on the Environmental Literacy Plan development, USEE members felt they were faced with an insurmountable task. Upon reflection, they realized that the Guidelines for Excellence could immensely reduce the amount of work needed. By reviewing the state's core curriculum and comparing it to the guidelines, USEE could concentrate on those areas where there appeared to be gaps. As a result, USEE's contribution to the environmental literacy planning process has been focused and to the point. Their comments don't reinvent the wheel but instead target needed new components or components that should be updated.

The national Guidelines for Excellence in Environmental Education are very much a part of the Utah Society for Environmental Education. Programs such as Certification, Resource Review, the USEE Conference, Professional Development and our current Environmental Literacy Plan efforts are rooted in the guidelines. They not only help shape our programs, but lend further validity and strength to our programs and organization, as well as the entire field of environmental education.

Andree'Walker, Executive Director, USEE

For more information on the
UTAH PROGRAM,
visit the society's website: <http://www.usee.org>

JOHNSON CONTROLS

Johnson Controls is a Wisconsin based company that got its start with the invention of a simple electronic room thermostat in 1883.



Private industries such as Johnson Controls have found the guidelines useful in developing education programs for employees and customers.

Today the company is a global leader serving customers in over 150 countries with a focus on automotive systems and facility environmental controls. One of its current high visibility efforts in environmental controls is a retrofit to the Empire State Building.

Thanks to a collaboration of Johnson Controls and other world-class experts, the Empire State Building is being retrofitted to make it over 38% more energy efficient. When these improvements are completed in 2013, this international icon will be in the top 10% of all U.S. office buildings in energy efficiency.

-Johnson Controls website

Innovative education programs complement the technical expertise on projects like the Empire State Building retrofit. Employees of Johnson Controls were convinced that organizations and companies could save money by reducing energy and water use and by operating more sustainably. To help others meet sustainability goals, Johnson Controls developed the Sustainable Energy Education and Communications (SEEC) Program. As the company website and news releases indicate:

Our Sustainable Energy Education and Communications (SEEC) program is a 10-module series of online lessons that shows how employees can find financial, environmental and social benefits at work and at home. It shows them how saving energy and water, keeping indoor air clean and other sustainable strategies can save money, reduce emissions, and help them stay healthy.

The sole focus of the SEEC program—Sustainable Energy Education & Communications—is to immerse an entire organization in sustainability: to provide the knowledge and promote the money-saving and resources-saving actions that result in long-term benefits for the participating organization, its employees and its surrounding community.

The concept [for SEEC] was developed in cooperation with the National Energy Foundation using the North American Association for Environmental Education (NAAEE)'s Environmental Education Materials: Guidelines for Excellence.

NAAEE defines six key characteristics of high quality environmental education materials: fairness/accuracy, depth, emphasis on skills building, action orientation, instructional soundness and usability. As experts in both employee training and sustainability, Johnson Controls kept all these characteristics in mind while creating SEEC.

For more information on the
SEEC PROGRAM,
visit the Johnson Controls website
at <http://www.johnsoncontrols.com/>



Johnson Controls is heavily involved with a project to make the Empire State Building more energy efficient.

WHAT CAN BE EXPECTED IN THE FUTURE?

SPIN-OFFS AND EXTENSIONS THAT BUILD ON THE GUIDELINES

In the future, the guidelines will continue to be used to accomplish the tasks for which they were designed. They have proven their worth in these areas and with occasional revisions and updates will be a valuable resource for years to come. However, we are now beginning to see the guidelines used in a variety of ways that we did not envision when we held the first discussions about standards and guidelines over a decade ago.

One notable extension that has become a reality is the use of the guidelines as part of pre-service education for teachers. NAAEE has worked with the National Council for Accreditation of Teacher Education (NCATE) on the inclusion of environmental education in the preservice education of the nation's teachers.

NCATE is the [education] profession's mechanism to help establish high quality teacher preparation. Through the process of professional accreditation of schools, colleges and departments of education, NCATE works to make a difference in the quality of teaching and teacher preparation today, tomorrow, and for the next century.

Using the guidelines as a starting point, NAAEE and NCATE developed Standards for the Initial Preparation of Environmental Educators. These standards are being used nationally to recognize teacher environmental education programs across the country.

Another extension that is now a reality is the use of the guidelines in programs to certify environmental educators. As detailed in the Kentucky and USEE discussions, the guidelines are being used by states to certify that their environmental educators meet certain core requirements. NAAEE is helping to unify the state certification efforts so that there is consistency and reciprocity among the states. NAAEE provides oversight to help ensure that the guidelines are consistently and rigorously applied to promote a national cadre of certified environmental educators.

The development of online courses based on the guidelines to provide professional development for educators has also added to the guidelines' impact on the environmental education field. These courses, developed by the University of Wisconsin-Stevens Point with support from EETAP, can also be used to develop many of the competencies required by those seeking state certification as environmental educators.

WHERE TO OBTAIN COPIES OF THE GUIDELINES

TO ACCESS OR OBTAIN COPIES OF THESE PUBLICATIONS:

You can read them online and download a copy at NAAEE's website: <http://eelinked.naaee.net/n/guidelines>. The website is also a great place to learn more about the guidelines program and find out how you can schedule a guidelines workshop for your school or organization.

You may purchase bound print volumes of the publications from NAAEE. You can order them online from the NAAEE e-commerce store using a credit card or you can download a PDF order form to mail with a check or purchase order: <http://www.naaee.org/publications/guidelines-for-excellence>.

You can also request a copy from the U.S. Environmental Protection Agency. Call the toll free number (800-490-9198) to request a limited number of free copies of each volume.

WHO HAS SUPPORTED THE DEVELOPMENT OF THE GUIDELINES?

The U.S. Environmental Protection Agency's Office of Environmental Education, through the Environmental Education and Training Partnership, has provided the primary support for development of the guidelines. The National Environmental Education and Training Foundation, the National Fish and Wildlife Foundation, Northern Illinois University, and World Wildlife Fund provided additional support.

QUESTIONS?

For more information visit <http://eelinked.naaee.net/n/guidelines>, or contact:

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(Bottom right) Using the guidelines ensures high quality educational programs and resources for students of all ages.

(Bottom left) The guidelines help ensure that tomorrow's decision makers learn about the environment from scientifically accurate and educationally sound materials.

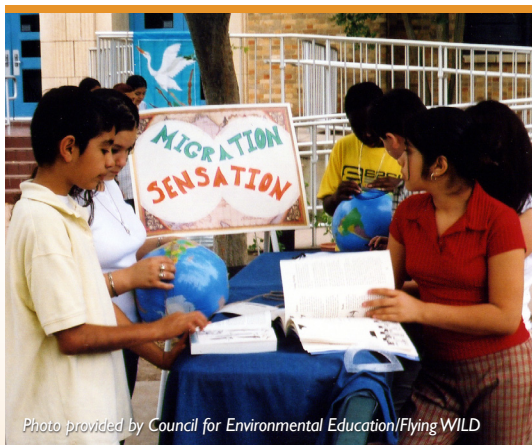


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