

Building Capacity

Community-Based Environmental Education in Practice

A community's quality of life, which depends directly on the health and quality of its local environment, is a common concern among its people. Yet communities often find themselves facing the consequences of poor environmental decisions, both their own and those of others.

Given the knowledge and skills – the “capacity” – communities will work to protect and improve their environment. Education designed to match community interests can increase that capacity.

Such community-based education has been widely used for community economic development, housing, youth, and health issues, and, less frequently, to address environmental concerns.

This pamphlet for US EPA and USDA Cooperative Extension staff reports on four programs. These effectively used community-based education to address: urban environmental health and public health, wetland resource management, county-wide groundwater quality, and youth involvement in lake water quality.

Community-Based Environmental Education

Research shows that effective Community-Based Environmental Education (CBEE) is local, collaborative, informed, and active, and it leads to positive actions. Furthermore, it is based on well-tested theory and educational

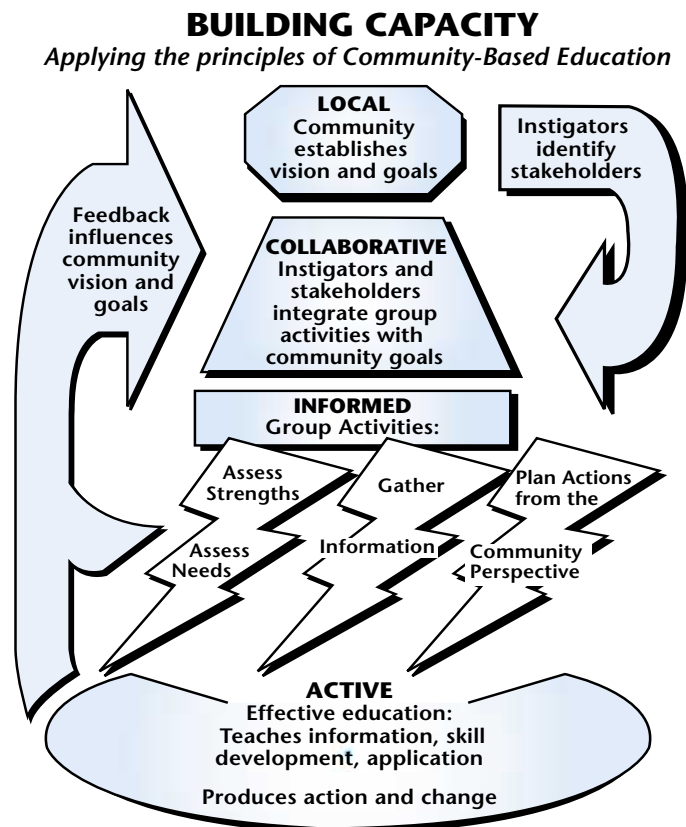
techniques. In specific:

- **Local:** Effective CBEE is created in response to local concerns and builds on local strengths.
- **Collaborative:** CBEE programs are collaborative, working with coalitions or groups. Leaders attend as much to process as to outcomes. Collaboration requires active, consistent, continuing leadership.
- **Informed:** CBEE programs promote action based on information, within the context of community goals. They are integrated into a community

planning process and help strengthen citizens' skills to plan with the environment in mind.

- **Active:** The desired outcome is informed action which leads to lasting change.
- **Proven:** CBEE uses tested theory, research, and educational techniques to promote action and encourage new behaviors.

Community-Based Environmental Education is discussed in greater detail in the pamphlet: *Building Capacity—Educating for Community Action*, No. 6.



Case Study 1: The Urban Environmental Initiative

Although it may lack technical expertise, the local community knows its own needs and values. When the community determines environmental needs the result is local commitment to resolving issues rather than resistance.

Recognizing this, the US EPA Region 1 adopted a novel approach, unique in EPA, to address urban environmental and public health problems. It created the Urban Environmental Initiative (UEI) and launched it in 1995 as part of the agency's new Community Based Environmental Protection approach (CBEP). The program focuses on Boston, Mass., Providence, RI, and Hartford, Conn. The following description emphasizes the CBEE techniques it used.

Local: The UEI focuses on listening to community concerns and leveraging resources to address them with meaningful improvements. Its goal is to build a community infrastructure through which people can effectively work on environmental issues. In this bottom-up approach there is a community grants program. City Managers serve as liaisons to the community.

City Managers administer grants from a variety of EPA programs, provide technical advice to communities, and serve as resource brokers and advocates for a wide range of community stakeholders.

Community is broadly defined to ensure coalitions are as inclusive as possible. This produces such strong community support that the process of building a livable city becomes self-sustaining.

Collaborative: In Providence, the Initiative's efforts at collaboration revealed three important issues. A series of stakeholder panels held in 1995 attracted a wide range of community interests: residents, city government officials, small community groups organized around various issues, state government officials, and academics. This inclusive panel was a forum for people to discuss Providence's most pressing environmental issues. Clear priorities emerged – lead hazards, the rat population, and toxics in fish – as well as ideas about how to target resources.

Informed: Providence's large rat population is supported by approximately 4000 vacant lots. The city planned to sell the lots for improvement at \$1 each, but the public believed them to be contaminated. The city recognized that it did not know if the lots were contaminated and had no money to conduct testing.

US EPA asked the community to prioritize lots (89 were chosen), trained volunteers in soil sampling techniques, and then conducted and paid for soil sampling and testing. Test results were reported during a community forum.

After working together to determine what the numbers meant, UEI developed a bilingual education program to inform the community about the lots. This allowed for quick transfer of "clean" lots to residents.

Active: In another UEI example, an established coalition working on the Woonasquatucket River in Rhode Island asked EPA for help. EPA staff conducted "risk screening" and discovered high levels of dioxin in the fish, along with other findings. Results were

brought to the coalition for consideration and action.

Realizing that many city residents used the river for subsistence fishing, they immediately announced a fishing advisory and began work on what became a successful multi-lingual, volunteer-implemented education program about the river's hazards. Currently, coalition partners are conducting sediment testing on their own and taking responsibility for distributing information.

Case Study 2: The Horicon Marsh Area Coalition

Broad involvement of all community interests can lead not to division and contention, as some may think, but to effective environmental action. Wisconsin's Horicon Marsh is the largest freshwater cattail marsh in the US and a designated wetland of international importance. Diverse interests rely on the marsh and its watershed. In addition to 263 species of birds, these include other wildlife, plants, farmers, outdoor sports enthusiasts, tourism-based businesses, environmentalists, landowners, county and local governments, the US Fish and Wildlife Service, and the Wisconsin Department of Natural Resources.

Local: Recognizing the diversity of potentially conflicting interests and the increasing demand on the Marsh and its surrounding areas, a local conservation group began thinking about how to protect the Marsh before any major conflicts arose. Eventually the group contacted University of Wisconsin Extension in Dodge County for assistance.

Together, they planned a day-long Horicon Marsh Forum, convened and facilitated by the Extension educator. This forum attracted 80 people representing 23 different interest groups. Using the Nominal Group Process, the group identified eight priority issues. Groups formed around each issue for follow-up work.

Collaborative: Forum organizers and a representative from each workgroup convened a steering committee, the Horicon Marsh Area Coalition (HMAC), with representatives from diverse stakeholders, local government, and agencies. This group agreed to a set of “Organizational Principles, Policies, and Guidelines” based on a collaborative approach introduced by the Extension educator.

HMAC uses consensus decision making and generates its authority through the involvement and consent of the individuals, groups, agencies, governments, and others in the Coalition. Actions and projects developed through the coalition are implemented through cooperative agreements.

Informed: As HMAC continued to meet, the County Extension educator introduced new process skills based on what participants were interested in learning. Experts from the University and other agencies occasionally provided content information, as well as sharing analytical skills when asked to explain research findings.

Active: Of the original eight issues identified at the forum, only recreation and water quality have been significantly addressed. Based on a recreational opportunity supply/demand survey, a network of cross-country ski-trails was established and a bird watching festival was planned.

Water monitoring has begun, and three monitoring stations were installed. However, the vast quantity of water quality data has overwhelmed the abilities of HMAC and involved agencies to analyze, discuss and plan actions.

HMAC, according to the Dodge County Extension educator, is primarily about decision making and communication, providing a medium for a new way to make environmental decisions. It provides a neutral forum where diverse interests can discuss often-contentious issues, and where people can seek common ground rather than conflict.

Case Study 3: Coalition for a Cleaner Environment

When a community is given educational opportunities based on the needs it has expressed, interest will be high and genuine learning can occur. Monroe County is Pennsylvania’s second fastest-growing county. Well and septic system maintenance were a new experience for many residents. As a result an assessment conducted by an educator from the Pennsylvania State University County Extension identified water quality issues as educational needs.

Local: The assessment used varied sources: personal experiences, review of existing data via face-to-face contacts, available census data, a county needs assessment survey, and advice from the Monroe County Coalition for a Cleaner Environment (MCCCE), a public/private partnership created to offer citizens education on water resources.

Collaborative: The Coalition included local and county government officials and staff, private citizens, environmental consultants, the Extension agent, and others. Meeting monthly, it identified existing town, county, and state water quality programming efforts, developed a programming needs survey, established priorities for water quality programming, identified potential workshop resources, and established an outreach/publicity plan.

Informed: Using needs assessment results, the coalition designed and planned several learning experiences. Simple efforts included preparing newspaper articles on water quality issues and distributing printed materials at workshops and through the County Extension office. More complex was a series of workshops. They offered a conference for government officials on actions to protect water quality, and workshops for the general public on: pond management, homeowner actions to protect water resources, and a three-part “water quality school” offered with continuing education credits from Penn State.

Active: MCCCE’s 1992 and 1993 workshops attracted over 200 attendees who committed to make environmental quality improvements in their water management. The Coalition also compiled and distributed an environmental directory for citizens needing help with environmental issues. It lists about 40 agencies and non-profit groups. The Coalition still meets and works to continue providing water quality education to Monroe County’s citizens.

Case Study 4: Adopt-A-Lake

Given information, support and tools, a local community can and will act to improve its environment. Wisconsin's "Adopt-A-Lake" projects began in 1992, spurred by the Wisconsin Association of Lakes which wanted to involve youth in lake protection.

Grant funding from the Renewable Resources Extension Act underwrote a project by Cherry Towne, a University of Wisconsin-Stevens Point graduate student. She prepared a manual and a pilot program aimed at developing leaders, empowering youth to become active in lake issues, and increasing their awareness and understanding of lakes.

The Wisconsin Lakes Partnership, a coalition of University of Wisconsin-Extension, the Wisconsin Department of Natural Resources, and the Wisconsin Association of Lakes, successfully lobbied the Wisconsin Legislature to support and fund a

youth component to lakes education based on Cherry Towne's graduate work. The original pilot became today's Adopt-A-Lake program.

Local: Through this program local youth groups can adopt a lake for a service project. The group chooses an activity, such as researching lake history, surveying lake users and area residents, lake mapping, and, most frequently, water quality monitoring. Groups may be school classes or groups, 4-H groups, or another organized youth group.

Collaborative: Youth frequently work with adult community members such as lakefront property owners, local officials, local clubs, local businesses, and local lake association members, to implement their projects. Using the information collected, the youth participants educate those same adults through presentations, performances, or media productions.

Informed: Youth learn about lakes and lake communities, and

how to gather information on them, in workshops, conferences, peer training, and other educational programs sponsored by Adopt-A-Lake. Adopt-A-Lake also offers training to K-12 educators, who pass newly-acquired information and skills on to their students. Teachers are actively encouraged to bring students along to these workshops.


Active: Through these activities, youth learn how to think through issues and apply solutions, as well as learning lake ecology, water-monitoring skills, interview skills, and presentation skills. Then, youth have the opportunity to use these skills in a local project, thereby reinforcing their new abilities.

Working together, the Lakes Partnership hosts the annual Wisconsin Lakes Convention at which youth and other community groups present their lake related work or research. This partnership helps give youth a strong role in protecting Wisconsin's lakes.

Prepared by Christopher Thoms and Elaine Andrews, University of Wisconsin Cooperative Extension-Environmental Resources Center. Sources for Case Study 1: Kristi Rea, UEL City Manager for Providence, RI. Case Study 2: David Neuendorf, Dodge County, WI, Extension Agent. Case Study 3: Donna Foulk, former Monroe County, PA, Extension Agent. Case Study 4: Libby McCann, former Adopt-A-Lake coordinator. Edited by Lynn Entine. Designed by Nellie Schmitz.



Environmental Resources Center, University of Wisconsin Cooperative Extension, 1450 Linden Dr., 216 Agriculture Hall, Madison, WI 53706
608/262-0020 <<http://www.uwex.edu/erc>>

Produced with funding from the US EPA Office of Environmental Education  United States Environmental Protection Agency



The US Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status.