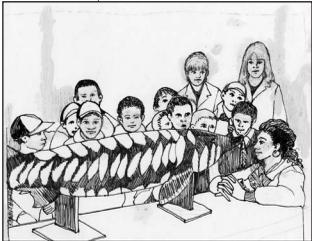


## Chapter 6:

# Public Outreach and Education



“In the end, we conserve only what we love. We will love only what we understand. We will understand only what we are taught.”

*Baba Dioum, Senegalese poet*

“Tell me and I’ll forget. Show me, and I may not remember. Involve me, and I’ll understand.”

*Native American proverb*

Building public support for nature conservation will be essential to expanding the use and effectiveness of the techniques recommended by this handbook. Though there is growing public support for protecting and restoring natural areas and biodiversity, there are still some questions and uncertainty about it among many segments of the community. Raising awareness of local natural areas and wildlife and the importance of them to the human community is a crucial step to building a local conservation program.

People get information that forms their attitudes and behaviors from many sources in addition to schools. Conservation organizations, community leaders, and the media contribute to the knowledge and values held by the public and they help interpret conservation issues. Local governments can play a significant role in educating their communities. The purpose of this chapter is to identify opportunities for local governments to most effectively use education to raise awareness and appreciation of local natural areas and wildlife. Education techniques described in this chapter can also be used in developing a public participation strategy.

## How Can Education Be Used to Protect Natural Areas and Wildlife?

The future of our natural landscapes depends upon the support and involvement of our citizenry. Widely held community values will determine local land use policy through elections and public hearings. A community that is well informed on natural resource issues is more likely to be supportive of decisions to conserve natural areas.

Residents not only influence larger community decisions with their votes but also make daily decisions affecting the health of natural ecosystems. These decisions range from the plants they choose to landscape around their homes to whether they support local initiatives to conserve habitat, which in turn depends upon the degree to which they understand the natural landscape.

Education is the first step in developing a local conservation program. If your municipality is not ready to plan with nature, educating your community is a significant step toward conserving local natural areas and wildlife. In some communities, education will be as important as implementing any of the other techniques described in this handbook.



## Smart Growth Strategies

Many local committees can participate in education efforts: conservation advisory councils, watershed groups, and open space committees. Municipalities can partner with other organizations that are already educating the public about nature. Successful conservation efforts are often the result of one or a few dedicated individuals who encourage and inspire communities to get involved; identify and support community leaders who can lead the educational effort to protect biodiversity.

In all approaches, be sure you reach out to a diverse group of people and treat all points of view with respect.

## What Is Your Education Goal?

Clearly identifying the goal of an education initiative will help hone the message, identify the audience, and identify the resources that can help you reach your goal. Table 6.1 has examples of education goals and how this handbook can help you reach them.

### Identify Your Audience and Potential Partners

The concept of a “general public” is misleading. What we call the public is actually a mix of people with different backgrounds, values, and motivations. Landowners, farmers, parents, landscapers, sportsmen and women, and business owners are all parts of the public. Recognizing this, any directed education effort should seek to identify its target audience or audiences and create strategies that will be most effective in reaching them. For example, to reach residents in a certain part of a municipality, one might write an article for the local neighborhood newsletter. You can work with local outdoor groups, like sportsmen and women, garden, and bird clubs, but also include groups that may not normally be involved in these activities, such as church groups, neighborhood associations, or chambers of commerce.

### Think About Your Language

The words you use when talking about nature matter. It helps to talk about natural areas and wildlife or similar terms that are more meaningful to most people. It is also important to focus on reality—natural areas and wildlife in *your* community. Finally, remember to make the connection between nature and everyday life. Information in Chapters 1 and 3 can help you do that.

### Look For Educational Opportunities

Municipalities could sponsor and/or promote events that provide learning opportunities about local natural areas and wildlife, such as hikes, outings, paddles, and field trips. They could partner with nature centers, bird clubs, and land trusts that already have education programs to highlight locally significant habitats.

### How to Reach People

The method you use will depend in part on the education goals and the audience you want to reach. Here are some ways to get the word out.

- annual events like Earth Day and Arbor Day
- articles in newsletters (community, neighborhood, interest group)
- articles in the local paper
- brochures or fact sheets in water bills or property tax bills
- community lectures
- letters to the editor
- presentations to service clubs, such as Rotary and Kiwanis
- public-access television
- public meetings and charrettes (See Chapter 6.)
- radio and television news stories
- trainings and workshops



**Table 6-1. Sample Education and Communication Goals**

education goal	when a municipality might set this goal	smart growth strategies in this chapter to help achieve the goal	potential resources
raise community awareness of local habitats	municipality is first considering conserving natural landscapes	identify your audience, look for educational opportunities	local nature centers, bird clubs, sportsman's groups, etc.
build support for conservation of local habitats	municipality is considering developing conservation initiatives	identify your audience, educate community about the importance of local habitats, involve people, lead by example.	detail on benefits of habitats in the introduction and Chapter 3; information from Biodiversity Project 2003
encourage natural landscaping near unique natural areas	after a plan has identified natural landscaping as a way of conserving a specific natural area.	identify your audience, lead by example, hold training and workshops	Chapter 13 has additional resources.

## Designate an Official Plant or Animal

One way to raise awareness of local habitats is to pass a resolution designating an official plant or animal that highlights the unique biodiversity of your municipality. The Town of Queensbury, in Warren County, designated the federally endangered Karner blue butterfly as its official animal. Your municipality's official plant or animal need not be an endangered species, though it should be somewhat unique, attractive, and found in the area. From a conservation perspective, it also makes sense

to select a species that indicates high-quality habitat. Turtles and dragonflies are attractive species that are of particular importance in the Hudson Valley. A salamander, orchid, or butterfly is also a good choice. Another way to get more people involved is to have an election or contest (see local examples on page 42). Once an official species is designated, education can focus on the species, its habitat, and stewardship/conservation. By celebrating the species through education and awareness, understanding and conservation support can grow throughout the community. For more information on the Town of Queensbury's efforts to protect the Karner blue butterfly, visit the town's official web site: [www.queensbury.net](http://www.queensbury.net).

## Educate the Community About the Importance of Local Habitats

This is extremely important. Not everyone is moved by the plight of declining species, but many are concerned about clean water and public health. Explaining to people how healthy biodiversity is crucial to healthy human communities and economies is an effective way of reaching people. Information in this handbook can be used in education efforts. Resources listed at the end of this chapter may also be helpful.

### Emphasize Responsibility and Opportunity

Explain the local role in conserving natural areas and wildlife. Try to describe the problem without emphasizing doom and gloom. There's nothing like despair to turn off an audience.

### Get Citizens Involved

Make local habitats relevant by getting people to experience them. Residents can be involved in management and monitoring (see Chapter 5), and natural landscaping. Activities that bring people together help build strong bonds and foster greater public involvement in efforts to enhance the community's image and quality of life. Neighborhood-based programs aimed at improving the environment and biodiversity locally can be appropriate for all ages and provide good

opportunities for neighborhoods to become involved with local conservation. Get a commitment from people to make a positive contribution to the environment, for example, replacing nonnative plants with native alternatives. Research has shown people who say they will do something are more likely to follow through (McKenzie-Mohr and Smith 1999).

### Lead By Example

Municipalities take many direct actions that can have a positive impact on natural areas. Taking such an action gives the municipality the opportunity to lead by example. For instance, natural landscaping can be used on municipal lands (Chapter 13) and natural areas can be maintained in some parks (Chapter 5). When building new facilities, use low-impact development and best-management practices to limit impervious area, manage stormwater, and retain natural areas (Chapter 10). This demonstrates the municipality's commitment to conserving nature and sets a good example for the rest of the community. Be sure to let the community know what you are doing and why you are doing it.

### Hold (or Co-sponsor) Trainings and Workshops

Training and workshops can be an effective way to share technical information with an audience. For example, if a municipality wanted to increase use of an unfamiliar technique, such as low-impact stormwater management tools or natural landscaping, it might consider holding a training or workshop. Training can also be used to educate violators of local laws, as has been done in New York City.

## Controversy

Like many issues regarding land use, conserving natural areas is sometimes considered controversial, often because of misconceptions. The best way to deal with controversy is to be prepared—anticipate controversial aspects and spend more time reaching out to and involving potential opponents to create opportunities for dialogue. Broad public participation in the decision-making processes is an important part of addressing potential controversy. Chapter 7 discusses participation techniques in greater detail. Resource protection does not mean infringing on property rights—it can actually enhance them.



## Summary of Benefits

The ultimate goal of environmental education is to help develop environmentally literate citizens, capable of making well-informed decisions about protecting local natural resources. Effective outreach and education efforts lead to:

- Increased public support for measures initiated by public agencies to protect natural areas and habitats.
- Improved public understanding of how nature and wildlife contribute to our sense of community, our sense of place, and to healthy, livable communities.
- Improved understanding of the public’s capability to act to conserve nature and to motivate them to take action.



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- Improved awareness of, and concern about, economic, social, political, and ecological interdependence in urban and rural areas.
- Improved skills for identifying, participating in, and solving local environmental problems.

## Local Examples

### Spreading the Word About Your Local Watershed

The Fishkill Creek basin covers approximately 194 square miles in Dutchess and Putnam counties, and encompasses the fastest growing towns in Dutchess County. The primary issue of concern in the basin is water supply. Most of the region’s water comes from groundwater well systems that draw from the sand and gravel aquifer in the Fishkill Creek and Clove Creek valleys.

The Fishkill Creek Watershed Committee was born of this concern. The committee’s mission is to encourage individuals and entities, both public and private, to work for the protection of the water supply and natural environment within the Fishkill Creek watershed. Education efforts are broad and varied. Committee members use the media to spread their message by

writing letters to the editor, articles in the newspaper, and local cable TV news stories. Local festivals used to spread the word include the Beacon Sloop Club Pumpkin Festival, East Fishkill Community Day, and the Hudson River Valley Ramble. The committee created an e-mail list and web site to update interested parties on issues of concern. Even more people became involved through an award-winning Streamwalk Program in which volunteers walked sixteen miles of Fishkill Creek to document the condition and visible impairments of the stream and shoreline. An education grant encouraged science teachers to use the Fishkill and its tributaries as an outdoor lab. For more information, visit the Fishkill Creek Watershed web site at [www.fishkillcreekwatershed.org](http://www.fishkillcreekwatershed.org).

### Public-access Television

Several communities have used public-access television to interview regional experts on wildlife and land use. The Town of New Castle conducts biodiversity education and outreach through various shows on public-access television, such as “Environment in New Castle” and “Know Your Parks.”

### Educating Students About Local Resources

All too often, our biological education does not focus on local resources. That’s not true in Albany County, where Farnsworth Middle School students help the Albany Pine Bush Preserve Commission control invasive species, grow native plants from seed, and plant seedlings. The seventh-grade curriculum has integrated the Pine Bush in science, language arts, and math. An elementary school in the same district recently held a vote to elect a new school mascot for four years. The symbol of the Pine Bush, the federally endangered Karner blue butterfly, won in a close election. For more information, contact the Albany Pine Bush Preserve Commission at [www.albanypinebush.org](http://www.albanypinebush.org).

### Conservation Café

The Westchester County Department of Parks developed the Conservation Café as part of the “Conversations on Conservation” series with the goal of creating collaboration among municipal leaders, conservation advisory councils, and environmental advocates. A report by the Federated Conservationists of Westchester found that there was more competition than collaboration when it came to addressing Westchester’s environmental challenges. The café is an informal forum for land managers and municipal officials to talk with experts about natural-resource issues. There are several meetings a year. Issues of interest include deer management, native plants, invasive species, Lyme disease, and stormwater. For more information, visit the Westchester County Department of Parks, Recreation, and Conservation web site at [www.westchestergov.com](http://www.westchestergov.com).

## BioBlitzes

In a BioBlitz, which usually takes place at a local park, scientists take a qualitative census of the biological resources of the area. A BioBlitz can educate the public about nature in their community. The community can be involved as either volunteers or can visit exhibits and displays set up in conjunction with the BioBlitz. More information on local bioblitzes can be found at [www.nybioblitz.org](http://www.nybioblitz.org).

## Education and Communication Resources

### Think Locally!

Every municipality has local people who can assist education efforts. Local nature centers, bird clubs, naturalist societies, sportsmen and women's groups, watershed groups, biology professors, teachers, land trusts and preserves can all be great resources for, and partners in, local conservation education efforts. Municipal agencies, including conservation advisory councils, soil and water conservation districts, and local Cornell Cooperative Extension offices are also helpful. Here some other organizations that can help you:

### **New York State Department of Environmental Conservation Hudson River Estuary Program**

[www.dec.ny.gov](http://www.dec.ny.gov)

Education in the estuary program focuses on the Hudson River. The program includes an education web site, booths at fairs, school programs, teacher training, grants, and technical assistance. The estuary program provides support to a system of twenty-five public and private education centers in the Hudson Valley.

### **The Biodiversity Project (Madison, Wisc.)**

[www.biodiversityproject.org](http://www.biodiversityproject.org)

The mission of the Biodiversity Project is to assess public opinion on biodiversity; to develop collaborative strategies to increase public awareness and engagement; and to lay the groundwork to implement those strategies. Some especially useful tools available on the web site are the message kits "Great Communities for People and Nature," "Life. Nature. The Public. —Making the Connection," "Getting on Message: Making the Biodiversity–Sprawl Connection," and "Getting on Message: Eastern Forests and Biodiversity."

### **National Audubon Society of New York**

[ny.audubon.org](http://ny.audubon.org)

The Audubon centers in the Hudson Valley: Buttercup Farm Sanctuary (Dutchess Co.), Rheinstrom Hill (Columbia Co.), Ramshorn/Livingston Sanctuary (Greene Co.), and Constitution Marsh (Putnam Co.) have nature education programs for adults and children. The web site has details about Audubon's wildlife conservation programs and also has contact information for Audubon chapters throughout the state.

### **Hudson River National Estuarine Research Reserve (HRNERR)**

[www.dec.ny.gov](http://www.dec.ny.gov)

The Hudson River National Estuarine Research Reserve is part of a national system of estuarine research reserves. The reserve is a network of sites on the tidal Hudson: Piermont Marsh (Rockland), Tivoli Bays (Dutchess), Iona Island (Rockland) and Stockport Flats (Columbia). A wide variety of physical, biological, and chemical research projects has been conducted at those sites. Public education programs include field programs for adult audiences, field classes for students, workshops for teachers and youth leaders, traveling exhibits, and presentations to community groups and service organizations. HRNERR also conducts estuary training programs to help land managers and local governments make better decisions for the Hudson River Estuary.

### **New York State Biodiversity Project**

[www.nybiodiversity.org](http://www.nybiodiversity.org)

The Center for Biodiversity and Conservation at the American Museum of Natural History partnered with the New York State Biodiversity Research Institute, The Nature Conservancy, the New York Natural Heritage Program, and the New York State Department of Environmental Conservation to create the New York State Biodiversity Project. Some of the products of this project are: a needs assessment of potential biodiversity information users, a web site that provides basic information about New York's biodiversity, state-of-the-knowledge reports on New York's species, and a book on New York biodiversity (Johnson and Smith, 2006).

### **Chicago Wilderness Atlas of Biodiversity**

[www.chicagowilderness.org](http://www.chicagowilderness.org)

Chicago Wilderness is a regional consortium of organizations dedicated to conserving biodiversity in the Chicago metropolitan region. The *Atlas of Biodiversity* (Sullivan [undated]) has colorful maps and photographs and tells the story of how geologic forces and human habitation have shaped the region's landscape. It is a great example of how nature and conservation issues can be translated for the public.

### **Cornell Cooperative Extension**

[www.cce.cornell.edu](http://www.cce.cornell.edu)

This network of educators is located at the Cornell University campus in Ithaca, as well as in every county in the state. Extension educators present programs and provide materials on natural-resource conservation.

## Resources

McKenzie-Mohr, D., and W. Smith. 1999. *Fostering Sustainable Behavior: An Introduction to Community-based Social Marketing*. New Society Publishers, Gabriola Island, British Columbia.

Stapp, W. B., A. E. J. Wals, and S. L. Stankorb. 1996. *Environmental Education for Empowerment: Action Research and Community Problem Solving*. Kendall–Hunt Publishing Company, Dubuque, Iowa.