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People, Communities, and Their Iowa Environment – Iowa Environmental Issues Series

Iowa Association of Naturalists

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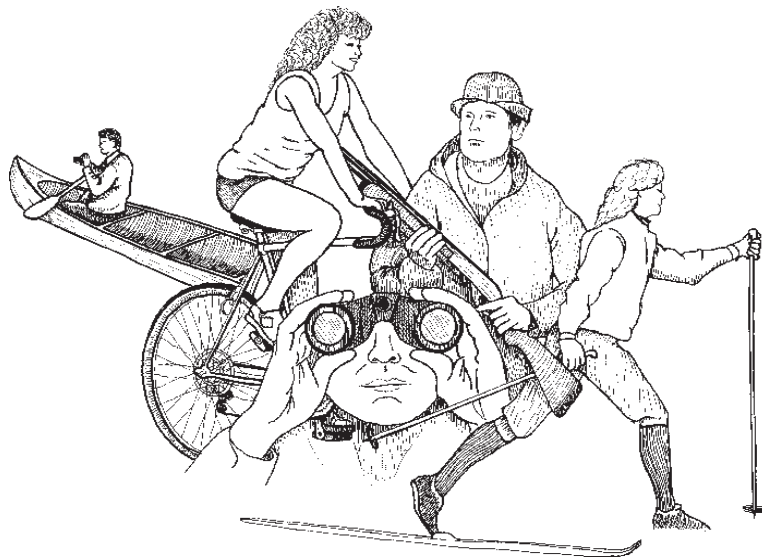
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People, Communities, and Their Iowa Environment

Iowa Association of Naturalists



Iowa Environmental Issues Series

People, Communities, and Their Iowa Environment

The nature of communities

Each day, people leave their homes and enter a community where they carry out the day's activities. Being human is being part of a community. We live among other people and within an environment that provides us with services and resources and which requires things from us in return. Plants and animals also live in



communities. A **natural community** is a group of plants and animals living and interacting with one another in a specific region under relatively similar environmental conditions. A group of people living and interacting with one another in a specific region under relatively similar environmental, social, and political conditions is a **human community**.

Communities are essential for our way-of-life. Our daily survival needs for food, shelter, and good health, as well as our social and material wants, are met through our ability to interact with people and the environment. Within a healthy community, there is both competition and cooperation. People compete with one another for personal accomplishments and cooperate with one another to build on common goals.

The natural shape of a community

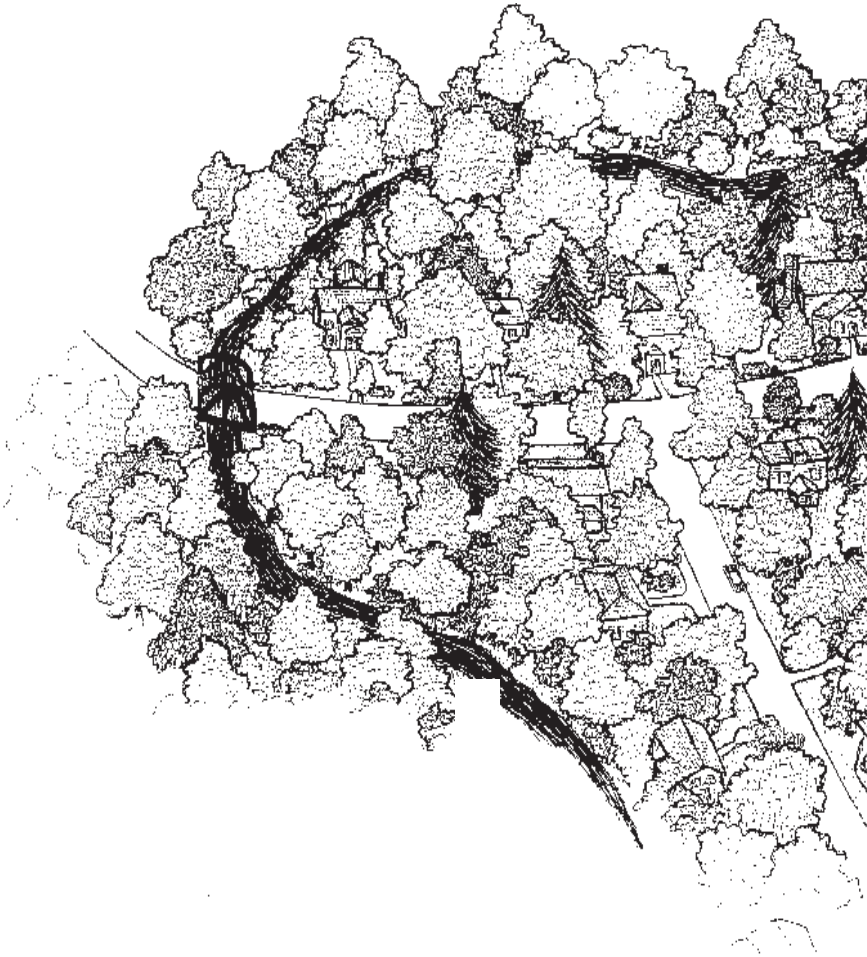
On the surface, daily life in our cities and towns usually centers around a community of people. But this human community is dependent on a larger natural community which contains the soils, water, air, plants, animals, and people. The land supports our way-of-life by providing us with the resources for our survival and the desires of

civilization. As Henry David Thoreau wrote, “Wilderness is the raw material out of which [people] have hammered the artifact of civilization.”

Our communities take on the shape of our environment. In Iowa, prairie soils, temperate climate, numerous rivers and streams, and a gently rolling landscape provided the basis for agricultural communities. The American Indians lived in agricultural and hunter-gatherer communities in what is now Iowa long before Euro-American settlement. Modern towns grew up around farms, grain elevators, railroads, and industrial businesses with ties to agriculture. Even in

urban areas, social and economic lifestyles have strong ties to Iowa’s agricultural past and present.

Iowa communities are intimately linked to the environment. They rely on clean water, air, and land, a variety of plants and wildlife, and a somewhat predictable climate. When these environmental factors are changed or degraded, there are social and economic costs to our communities.



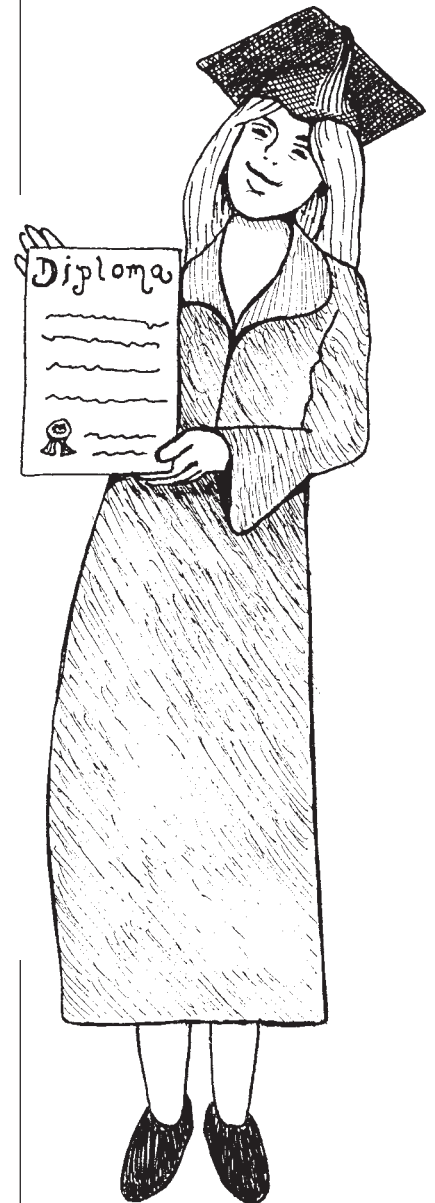
Natural and human communities

The principles that strengthen and protect natural communities also strengthen and protect human communities. Both rely on interaction and interdependence. In natural communities, wildlife depends on other animals and plants for food, shelter, and security. People depend on other people and the environment for their survival. Just as a loss of species can disrupt food cycles and destroy habitat, the loss of businesses, public services, or natural resources can weaken the economy and damage the workings of a city or town.

A wild animal uses its physical and behavioral adaptations to survive in its community. Wildlife often have an innate sense of how to find the necessities for survival within their community. Sometimes, however, young animals must develop skills for hunting or other behaviors that ensure survival. Some animals learn these skills from parents or other relatives or through real-world experiences. Healthy communities provide an environment in which species have their own special jobs or roles to play, called **niches**. Communities are strengthened as wildlife use their specialized adaptations and behaviors to fill important niches.

Niches also are important components of human communities. In a healthy community, each person is able to find a job and play an important role. Our innate abilities to learn and adapt, along with many learned skills, often determine success in occupying a niche. A healthy community provides the services to allow people to find their niches. Parents and other relatives, churches, schools, and social clubs may help guide people and foster within them a feeling for who they are within their community. People attend schools, go to the library, and participate in a variety of educational pursuits that help them understand and succeed in filling their niche. Human communities are strengthened when their citizens are cared for and well educated.

Diversity plays a key role in the health and stability of both natural and human communities. The strength and resiliency



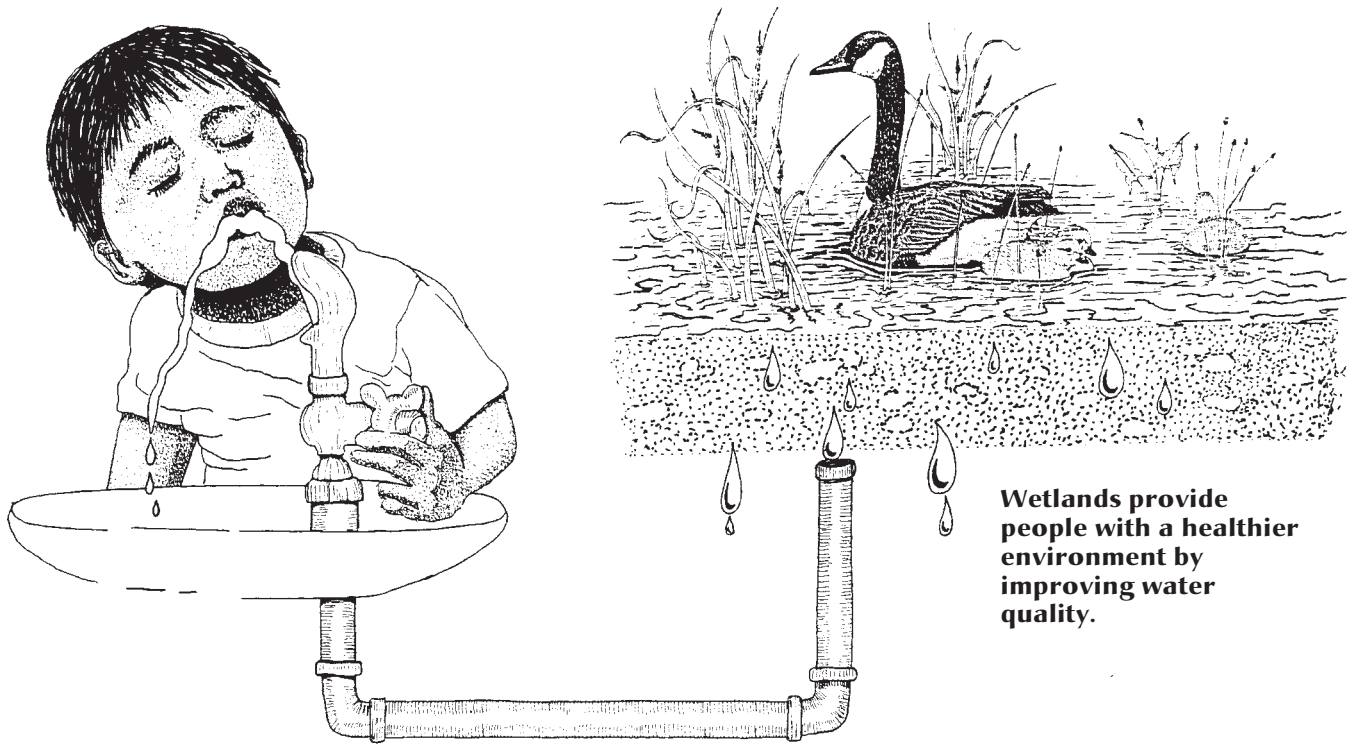
of natural communities are dependent on a diversity of habitats and a diversity within habitats where species find resources for survival. Diversity provides wildlife with options in diets, shelters, and materials within the confines of their habitat. A species-specific disease is not as disastrous when there are a lot of unaffected species that can fill the niche of the diseased species. Similarly, diversity makes human communities stronger and more resilient by providing a variety of knowledge, skills, and ideas. Communities that have a diverse economy have a variety of industries and businesses providing more options for employment and community services. The scope and range of communities grow as people include and interact with a diversity of races, religions, and cultures. These more inclusive communities often are less prone to prejudice and are likely to make wise decisions based on knowledge and a variety of experiences.

Community environmental benefits

Healthy environments foster healthy communities, and healthy communities foster healthy environments. There is a strong bond between people and their environment. People lead healthier lives in a clean environment. Healthier people are more energetic and able to contribute to their community. People also find various opportunities for recreation and leisure activity in a quality environment. By reducing health costs and increasing recreational activity, a good environment helps produce a good economy. Similarly, environmental protection and conserving resources lead to efficiency and cost savings.

Clean water

Water is constantly used and reused in a community, and people and natural processes that protect the water are vital to the community. Most Iowans rely on groundwater for their drinking water. Others get their water from lakes, reservoirs,



or rivers. There is often a close relationship between the quality of surface water and groundwater.

Where wetlands border lakes, rivers, or streams, the water is clearer and less polluted. Wetland plants filter soil and process chemical pollutants from runoff. They also protect groundwater by using excess nitrogen, the most common pollutant in Iowa's drinking water. The free services of wetlands, including cleansing water, reducing erosion, and maintaining fisheries, disappear when wetlands are destroyed. Where wetlands no longer exist, people must bear the costs of water treatment, erosion controls, and fish stocking. One study estimated it would cost communities throughout America as much as \$75 billion if even just the driest wetlands lost their protected status and were destroyed. This high price tag includes the cost of building new water treatment plants to fill the role of wetland plants that filter nitrogen pollution.

In addition to saving Iowans water treatment costs, wetlands also act as huge sponges that soak up excess water and slowly release it into lakes, streams, and underground aquifers. In

periods of heavy rainfall or snow melt, wetlands lessen the risk of destructive floods and erosion. In periods of drought, many wetlands continue to slowly release their stored water supply. Investing in wetlands would have prevented the loss of millions of dollars during the 1993 floods that devastated parts of Iowa and the Midwest. Flood specialists have estimated that restoration of 13 million acres of strategically placed wetlands in the upper Mississippi River watershed could prevent floodwaters from overflowing under conditions similar to those that caused \$15.7 billion in damages in 1993.

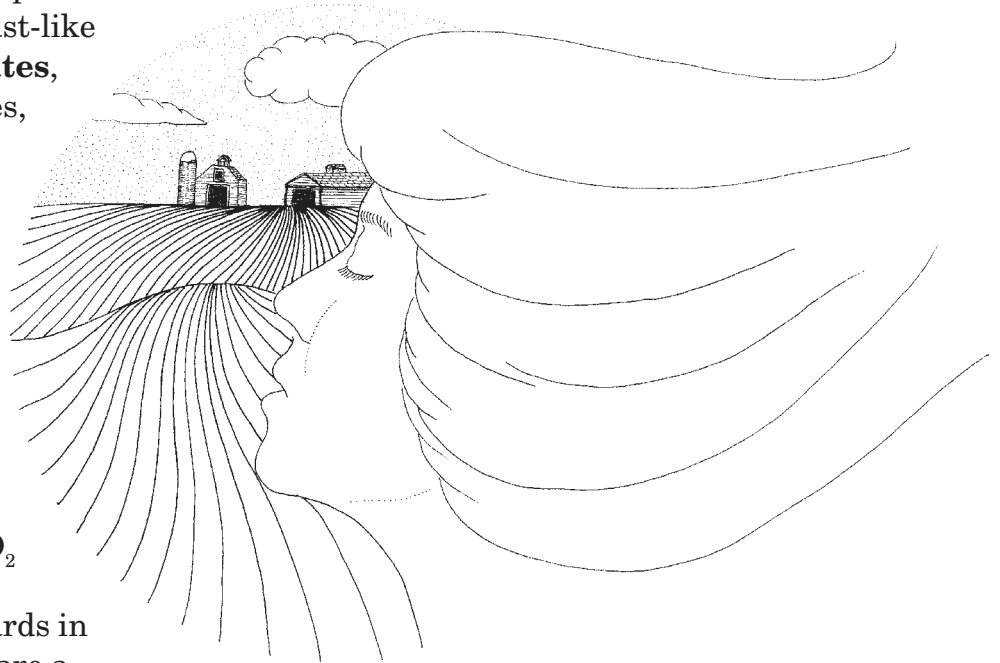
Recreational and commercial use of rivers and streams provide direct benefits to our economy. The Mississippi River is especially important as a transportation corridor for barge traffic. Nearly all of Iowa's larger streams and rivers are home to popular game fish and waterfowl. The beauty of Iowa's waterways attract canoeists, raft runners, stream waders, and other waterway wanderers. In addition, motor boats and water skiers use our larger rivers and reservoirs. In 1991, Iowa anglers pumped more than \$320 million into Iowa's economy through money spent on their sport. In 1990, Iowa commercial fisheries along the Mississippi and Missouri Rivers produced nearly three million pounds of fish.

Commercial and sport fisheries are dependent on clean water. But soil erosion in Iowa watersheds threatens Iowa rivers and streams. There are more than seven million acres of highly erodible crop land in Iowa. Runoff from these areas often contains soil, fertilizer, and pesticides which greatly affect the quality of lakes and streams. Many species of invertebrates, amphibians, and fish are vulnerable to soil and chemical pollution. When these vulnerable species become less common, their loss affects other species throughout the aquatic food web. A lack of clean stream water leads to fewer game fish, birds, and other wildlife.

Clean air

Air pollution directly affects people's lungs, heart, and bones.

Sulfur dioxide (SO₂) is a pollutant produced mainly by power plants that burn coal. **Ozone (O₃)** is produced by motor vehicle traffic and vaporized fuels. A variety of small dust-like particles, called **particulates**, enter the air from foundries, diesel exhaust, cement plants, gravel roads, and many other sources. High levels of these air pollutants have been potential health hazards in Iowa during the past ten years. People living in Cedar Rapids and Muscatine have been exposed to atmospheric SO₂ levels above the national ambient air quality standards in recent years. Particulates are a known problem in Mason City, Buffalo, and Des Moines, and high levels of both particulates and ozone have been measured in Davenport.



Air-borne sulfates and particulates are damaging to lungs, especially among children and the elderly, leading to asthma, bronchitis, emphysema, decreased lung function, and cancer. Ozone pollution also is dangerous to lungs and tends to weaken the body's immune system. Air pollution is absorbed by bones and released into the body during periods of bone loss such as during pregnancy, nursing, and osteoporosis. Air pollution is even felt down deep in our hearts. **Carbon monoxide**, another pollutant resulting from burning fossil fuels, replaces oxygen in the blood, depriving the heart of oxygen and effectively smothering it.

Communities can take action to stop air pollution. Because most pollutants are the result of fossil fuel use, conserving energy and investing in clean energy sources help clean the air. It is in the best interest of a community to promote fuel

efficiency and to help businesses and utilities install emission controls or switch to alternate fuels. Although switching to environmental technology may seem costly in the short-run, these costs are sometimes quickly recovered. The DuPont Company in Cedar Rapids invested in technology that uses condenser that are 93 percent-efficient and CFC-free to recover vapors from acetone that would otherwise contribute to ozone pollution. The two condensers reduce air pollution and prevent \$8,000 worth of still-useful products from escaping into the atmosphere each year.

Wildlife habitat protection

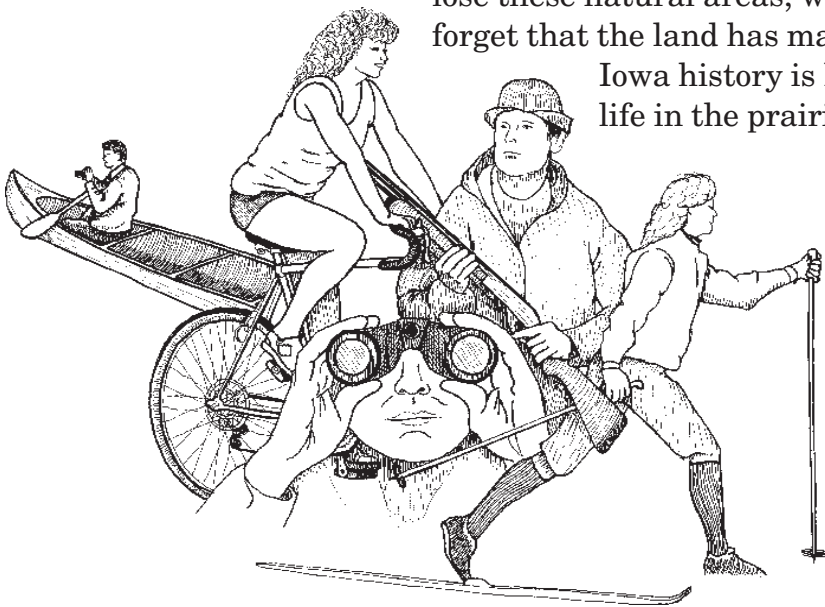
Beautiful woodlands, vast prairies, dynamic wetlands, and meandering rivers are all part of our Iowa heritage. When we lose these natural areas, we lose part of ourselves. We may forget that the land has made us what we are. Our feel for

Iowa history is lost. It becomes difficult to picture life in the prairie or in a woodland settlement. The

materials, foods, medicines, pleasures, and fears of our past are buried with the trees, grasses, shrubs, flowers, and wildlife of our woodlands, wetlands, and prairies.

The great diversity of natural areas in and surrounding Iowa communities provide recreation, beauty, and economic benefits. Thousands of hunters, trappers, anglers, and wildlife enthusiasts rely on

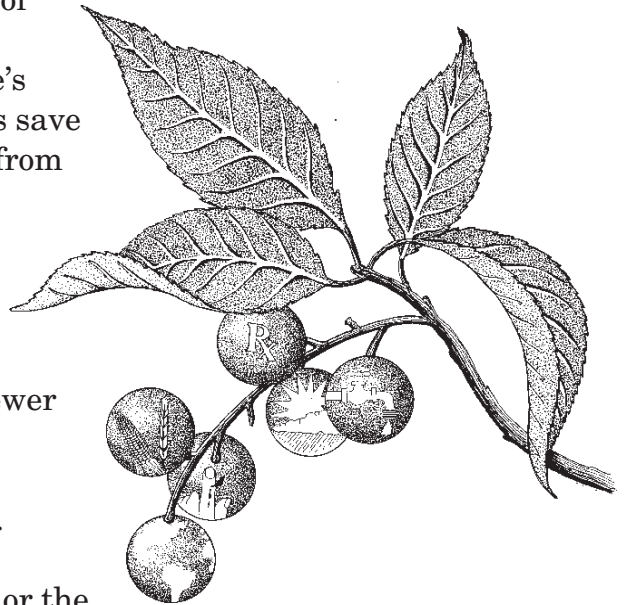
woodlands, wetlands, prairies, lakes, and streams for their recreation. Iowa parks, campgrounds, bike paths, nature trails, and nature centers are visited by millions of Iowans and tourists each year. People seek the recreation, relaxation, and educational opportunities these places provide. And the tourism and economic development revenue they generate is substantial.



Woodlands provide direct benefits to our economy. Sawmills, veneer mills, pulp mills, pallet plants, and millwork operations provide Iowans with jobs and help feed the Iowa economy. In fact, more than 12,000 Iowans are employed in the wood industry. According to the Iowa Society of American Foresters, Iowa forests contribute approximately \$712 million each year to the state's economy. Trees and other plants also help Iowans save money and conserve energy by sheltering homes from cold winter winds and the hot summer sun.

It is difficult to assign an economic price tag to each species that contributes to biodiversity, and it is difficult, therefore, to determine the costs when species are lost. It is estimated that fewer than one percent of the world's species have been carefully studied as human resources, and direct values for most species have never been assessed. Indirect benefits, such as an individual species' contribution toward environmental maintenance or the effect that a chain-reaction of extinctions might have on other species, are impossible to compute. It is also impossible to predict how species may become valuable in the future. To paraphrase Aldo Leopold: If creatures and plants are the small wheels and cogs of Earth, what mechanic would discard the parts, simply because she or he does not know what they are for? This we do know: extinction is forever. Human communities draw upon a diversity of species for resources. And once a species is gone, all value to human use, as well the value beyond human use, is gone, forever.

The loss of wild species in Iowa and throughout the world has potential health risks. Wild plants and animals continue to be sources of medicines, foods, and materials. Researchers use wild plants as resources to create better yields, more disease-resistant crops, and crops better adapted for our climate. They also look to a diverse pool of plant and animal species to find cures for diseases such as cancer, heart disease, and other illnesses. And who knows, a rare woodland snail or wetland plant might someday hold the cure for saving human lives. When species are lost, so are their potential human uses for food and medicine.



Wasted materials and energy

Iowans generate approximately 3.2 million tons of waste annually. This waste is a drain on our resources and economy. Oil, minerals, and trees are valuable resources and should be left to provide value for future generations. Wasted products include these material resources, as well as the energy and labor used in their manufacturing. They also use up space in community landfills and leach into groundwater supplies. By managing waste in a more sustainable way, communities enhance their futures.

The best waste management technique for a community is to reduce the amount of waste before it enters the waste stream. Consumers, businesses, and industry can reduce waste by

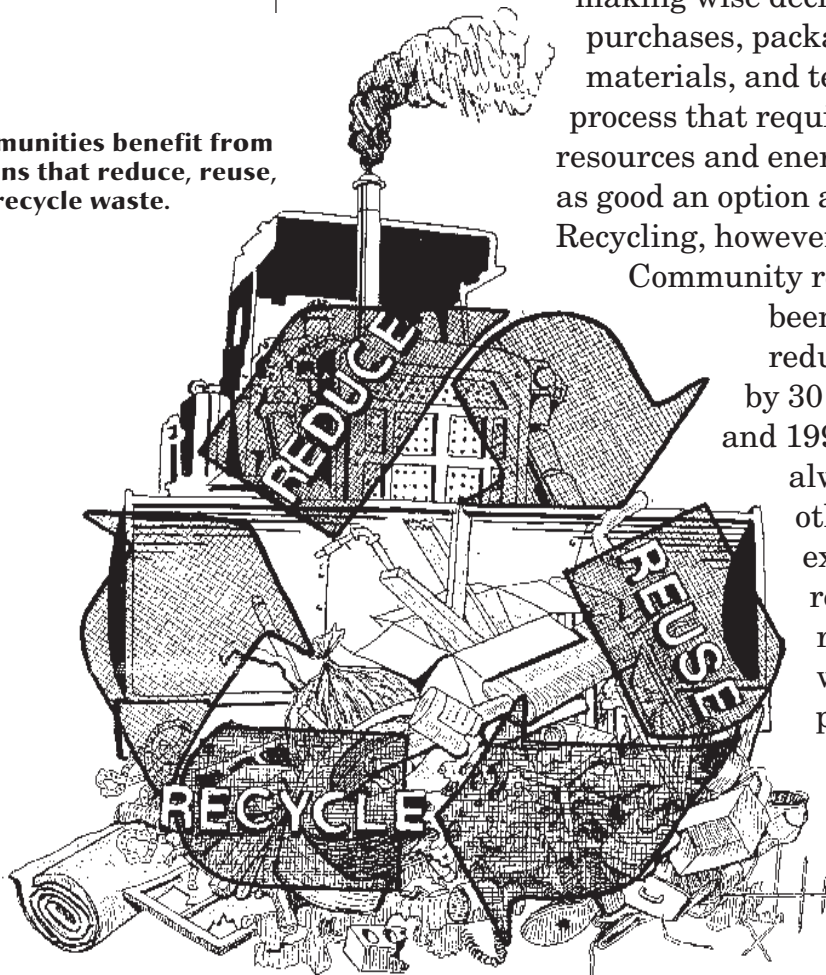
making wise decisions concerning purchases, packaging, machinery, reuse of materials, and technology. Recycling is a process that requires some additional resources and energy and is, therefore, not as good an option as waste reduction. Recycling, however, is the next best thing.

Community recycling programs have been the major factor in reducing Iowa's waste stream by 30 percent between 1989 and 1996. Recycling almost always saves energy and other resources. For example, manufacturing recycled aluminum reduces energy needs, water use, and air pollution by 96 percent compared to making aluminum from raw materials.

Approximately 98 percent of the money Iowans spend on

electricity, gasoline, and other fossil fuel energy sources goes out-of-state, while the pollutants created through the burning

Communities benefit from actions that reduce, reuse, and recycle waste.



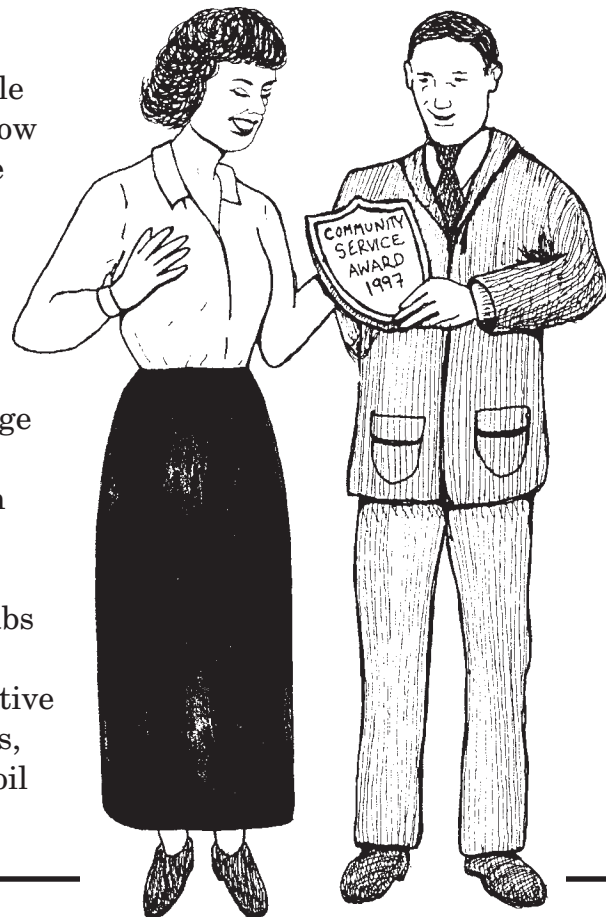
of fossil fuels stay in our communities and also affect our neighbors. Millions of dollars could stay in Iowa if we reduce our demand for fossil fuels and increase our demand for renewable, locally-produced energy sources. A lot of economic activity results from energy conservation. Economic activity increases when demand for new services and products rises, creating opportunities for business and employment. When people spend a dollar on gasoline, it leads to \$1.48 of economic activity. But when a dollar is spent to conserve energy, it generates \$2.24 of economic activity. Energy efficiency and using clean alternative fuels should be a goal of any Iowa community because they reduce pollution while providing an investment in local economies.

Knowing the community and the environment

When people are active in their communities and knowledgeable about their environment and how their communities work, communities are improved.

Knowing and becoming a key player

There are often several people who lead and shape a community. These key players are very important and may change depending on the types of projects a community undertakes. Key players often include business and industry leaders, teachers and school administrators, government officials, members of civic clubs and youth groups, church leaders, and community volunteers. People who are active in conservation and environmental groups, including conservation board members, soil



commissioners, and local conservation professionals, are also key players in community projects. Anyone interested in improving their community needs to know the key players and how to become such a leader.

Key players are constantly in demand within a community. Iowans participating in the **1995 Governor's Conference on Education about Conservation and the Environment** recommended that potential leaders be sought and trained as key players in enhancing communities and the environment. Some towns and counties were searching for new people to take leadership roles before the 1995 conference. By sponsoring leadership training workshops, these communities give their citizens the opportunity to develop leadership skills. The following is a partial list of Iowa towns and counties that currently offer community leadership training workshops:

Ames	Buchanan County
Ankeny	Buena Vista County
Boone	Cedar County
Cedar Rapids	Decatur County
Charles City	Henry County
Clinton	Iowa Great Lakes
Council Bluffs	Jones County
Davenport	Mahaska County
Des Moines	Marion County
Dubuque	Monroe County
Marshalltown	Plymouth County
Mason City	Pocahontas County
Nevada	Poweshiek County
Red Oak	Washington County
Shenandoah	
Sioux City	
Waterloo	
Waverly	

Community cooperation

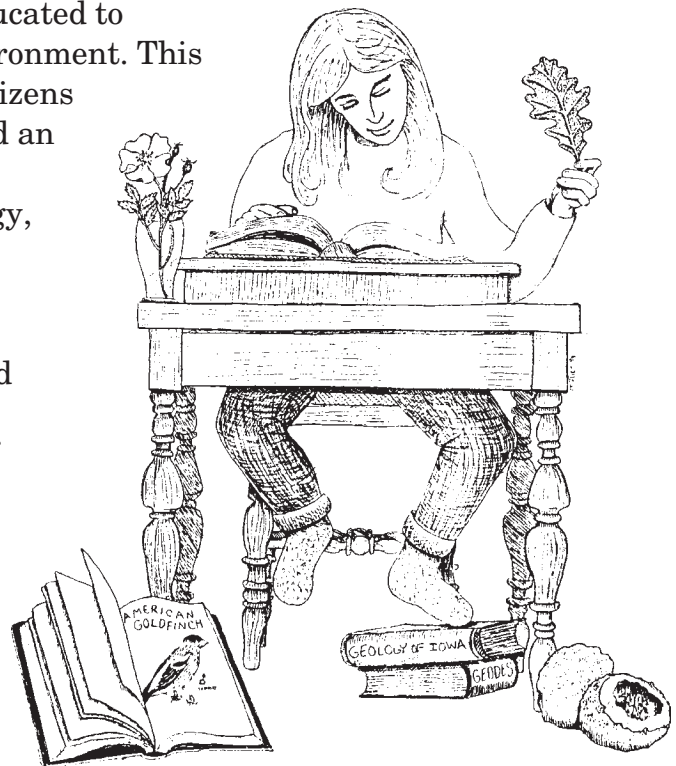
Once the key players are identified for a community project, cooperation becomes the key. Groups affected by any project's outcomes need to be brought together. Community projects are most successful when diverse groups come together, agree to disagree on some issues, and focus on shared goals. Both proponents and opponents need to be contacted. With cooperation and partnerships, community projects can proceed.

The list of community partners involved in most environmental projects is lengthy. There are often economic, land use, and social conflicts that need to be resolved before a project can be successful. People need to build where there is common ground and communicate to resolve conflicts.

Community environmental education

People need to understand the value of protecting and enhancing their environment. A quality environment can only be realized if citizens are properly educated to understand their community and the environment. This **environmental literacy** is defined by citizens who are committed to lifelong learning and an understanding of the following:

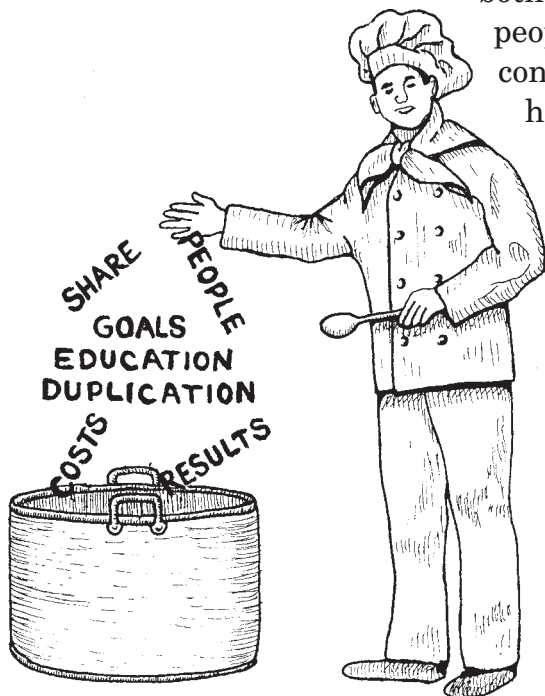
- the basic principles of ecology, sociology, and economics;
- the interconnection of all parts of the environment;
- the environmental and social costs and benefits of consumer decisions;
- the sources of energy, improvement of energy efficiency, and relationships between energy use and lifestyles;
- the implications of economic and population trends;
- the impacts of personal lifestyles and personal choices; and
- the importance of acting in a sustainable and constructive manner to protect the quality and diversity of the natural world.



People in Iowa are fortunate to have some of the best schools in the nation and numerous opportunities for environmental education outside the classroom. Most county conservation boards and some state and federal agencies employ naturalists to improve environmental literacy within communities. For more information about naturalists in and around your community, contact the **Iowa Association of Naturalists** (IAN). Teachers who wish to become more involved in environmental education can join the **Iowa Conservation Education Council** (ICEC). Both organizations are interested in furthering environmental education by providing training and professional support for educators in Iowa.

Success stories

There are many Iowa community success stories that have benefited both people and the environment. These stories are about Iowans who have realized the potential for education and cooperation to help their businesses, schools, and quality of life. The stories come from both small and large communities. They are about people in agriculture, industry, business, and conservation and education organizations who have helped bring together the right ingredients to make their communities succeed.



Ingredients for success

Most successful community projects have some key elements in common. The following is a list of key ingredients for cooking up a success story:

- know your goals and define your objectives;
- include all the key people who have an interest in the project;
- target your environmental education efforts;
- identify costs and sources of funding and material resources;

- evaluate the results;
- share the success with everyone involved; and
- evaluate the project for replication or partial duplication for other projects and other communities.

Magic Beanstalk CSA Goals and objectives

Magic Beanstalk is a community supported agriculture (CSA) project that promotes the local sustainable agriculture effort of family farmers in central Iowa by providing fresh, locally-grown wholesome farm products to people living in the area. CSAs are partnerships between local health-conscious consumers and local producers of good, clean food. CSAs help people recognize the importance of good food and healthy farms in a thriving community. This helps small organic growers survive amidst the growing industrialization of agriculture. CSAs strive to help farmers achieve economic stability while honoring environment-sustaining practices and community-sustaining relationships.

Key people in this project

CSAs bring together the spectrum of people involved in a local food system. Local farm families grow healthy food and fiber products using sustainable methods. They are committed to land stewardship and building their communities. Churches and social service agencies cooperate with the CSA to make projects more successful. Members of the Magic Beanstalk CSA include consumers who want fresh, locally-grown, and often organically-produced food. They also want to promote practices that help the environment and their community.

Education efforts

Education efforts focus on helping people learn more about their food, farmers, and the land and community where food is produced. Education projects include farm field days, youth



CSAs help people recognize the importance of good food and healthy farms in a thriving community.

gardening and nature explorations, nutrition and cooking classes, festivals, potlucks, and educational newsletters. Community volunteers help with many aspects of the project.

Project funding

Budgets and funding vary among Iowa's CSAs. In general, CSAs are sustained by their member-consumers who pay for goods they receive through the CSA. Several grants provide funding to allow Magic Beanstalk to become more involved in coordinating educational and other projects. Grant money has been provided by the W.K. Kellogg Foundation through Shared Visions and Visions 2020 programs and by the Leopold Center for Sustainable Agriculture. Private donations and a grant from a local church help Magic Beanstalk provide healthy foods to families who otherwise could not afford it.

Project evaluation

Written evaluations are conducted annually. Farmers survey their consumers to determine vegetable preferences and to receive feedback on the process.

Sharing success

Success is shared as organic farmers become better known and markets for organic and sustainably-grown foods open.

Duplication

In 1995, there were three CSAs in Iowa. By 1997, the number of CSAs had grown to 24. The Iowa Network for Community Agriculture (INCA) helps share information between CSAs and helps organize new CSAs in the state. For more information, contact Jan Libbey, INCA Education and Outreach Coordinator, 1465 120th St., Kanawha, IA 50447, 515/495-6367.

Raccoon River Watershed Project

Goals and objectives

The Raccoon River Watershed Project (RRWP) is an alliance of Iowa farming, environmental, and urban partners who

have a stake in the quality of water and quality of life in the Raccoon River watershed. The Raccoon River flows through a large portion of Iowa's most productive agricultural land. The Des Moines Water Works, Iowa's largest water utility, draws water from the Raccoon and Des Moines Rivers and from an infiltration source that is replenished from the Raccoon River. Through voluntary demonstrations of integrated farming systems and the adoption of management practices, farmers are leading this voluntary effort to protect water quality in the Raccoon River watershed.

The purposes of this project are two-fold. The first is to develop economically-viable programs that improve water quality for farmers in the watershed. The second is to build a multi-organizational coalition that will support economically viable water quality programs. Thus far, the project has made measurable progress in establishing project initiatives, demonstration projects, and a communications and public relations network, as well as fostering partnerships.

Key people in this project

Nearly everyone in the Raccoon River watershed is impacted by and supportive of this project. Farmers, agribusiness, and community households all have a stake in preserving water resources. Project partners that make up the steering committee include Agribusiness Associates of Iowa, Des Moines Water Works, Iowa Cattleman's Association, Iowa Corn Growers Association, Iowa Farm Bureau Federation, Iowa Natural Heritage Foundation, Iowa Pork Producers Association, and Iowa Soybean Association.



Education efforts

The project employs a multi-faceted educational effort. One priority is to provide farmers with information about economically-viable initiatives they can use on their farms. A second priority focuses on communicating with urban audiences through inserts in their water bills about the efforts farmers are making and actions urban residents can take to reduce their application of commercial fertilizers and pesticides. Another focus is to sponsor field days providing opportunities for water shed residents to evaluate practices that benefit them.

Project funding

Generous support for this project was provided by the Northwest Area Foundation of St. Paul, Minnesota. A \$500,000 grant from the Northwest Foundation was matched with in-kind support from the project partner organizations. A project director is actively involved in recruiting additional funding.

Project evaluation

Progress reports are submitted to the Northwest Area Foundation annually. There also have been numerous evaluation and strategic planning meetings to assess the goals and objectives have been met and to determine what still needs to be done. The ultimate indicator of success has been the increased use of farm practices that protect the watershed. The project will use surveys and farm visits to measure farmers' attitudes about technology and practices that increase profitability and improve water quality.

Sharing success

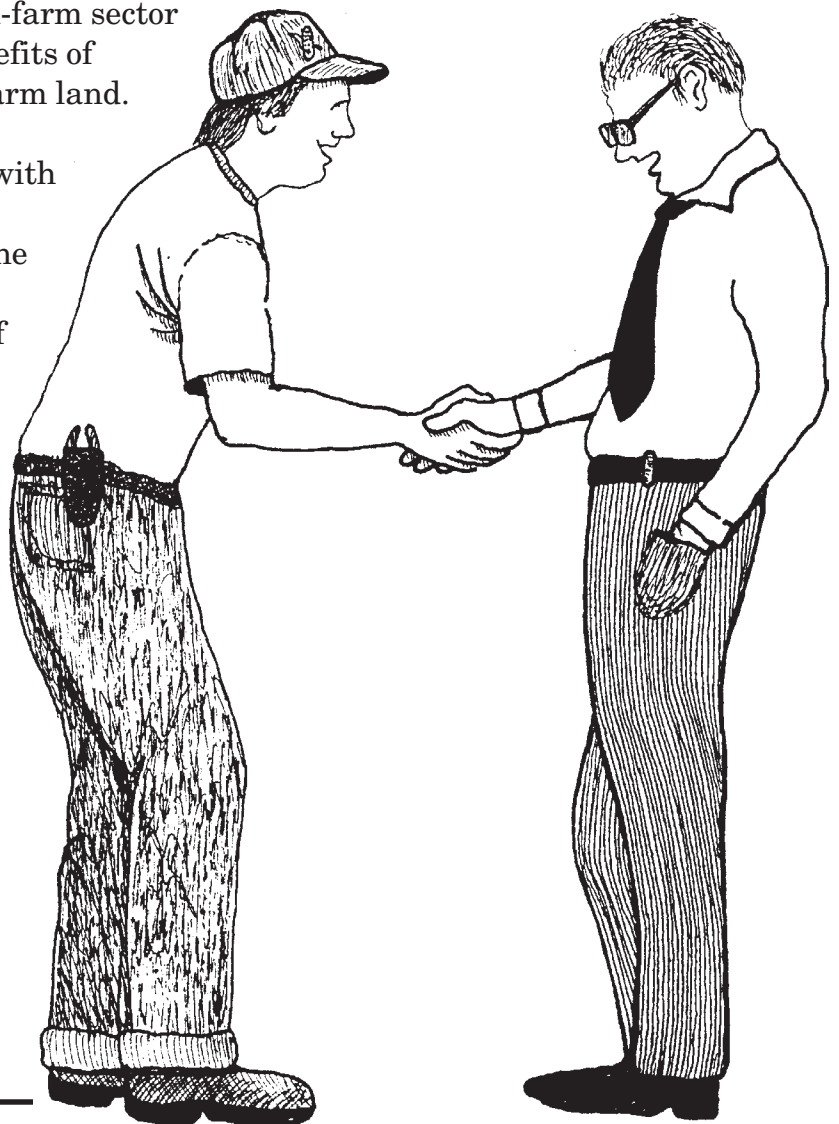
Farmers who use better management practices are recognized at field days, through publications, and with awards sponsored by the Des Moines Chapter of the Izaak Walton League and the Iowa Future Farmers of America Foundation. The RRWP also provides financial rewards and cost-sharing for farmers who implement good management practices.

Duplication

Communities wishing to duplicate this project must form a broad-based coalition of people within and outside the agricultural community. The coalition must demonstrate to farmers the economic and environmental benefits of such a project. For more information, contact Roger Wolf, Raccoon River Watershed Project, 5400 University, West Des Moines, IA 50266, 515/226-6236.

Non-Farmers Guide To Agriculture Goals and objectives

The Non-Farmers Guide To Agriculture (NFG) was created by the Johnson Soil and Water Conservation District (SWCD) to educate the non-farm sector about agricultural and societal benefits of applying conservation systems to farm land. The NFG sponsors four seasonal workshops to provide participants with a better awareness of the various aspects of agriculture throughout the year. The winter session focuses on annual planning and the services of agribusinesses that are important to farmers. The spring session focuses on planting, while the summer session assesses crop progress. The fall session focuses on the harvest. Each session addresses conservation, economic, technological, and cultural considerations related to farming. The project demonstrates to non-farmers the ways in which farmers enhance the environment. The NFG also working to establish an urban-rural coalition to work on a watershed project.



Key people in this project

The first effort involved integrating agricultural and natural resources into a community leadership program sponsored by the Iowa City Chamber of Commerce. The NFG and an advisory board consisting of agribusiness representatives, farmers, agriculture leaders, government representatives, and environmental groups was established in 1993.

Additional farmers were added to the program to act as agriculture ambassadors. The ambassadors help answer questions and provide personal accounts about a variety of issues. Local farm and business tours have been a great success because of the key participants in the project.

Education efforts

Participants have been especially interested in learning about farmers' efforts to control soil erosion, improve water quality, provide wildlife habitat, and restore wetlands and other wildlife areas. They also discover the intricate, complex, and fascinating elements of farming. The environmental aspects of the project have shown urban residents the benefits of conservation systems.

Project funding

A U.S. Environmental Protection Agency (EPA) environmental education grant initially provided \$5,000 to supply materials and pay part-time staff to organize and implement the project. In 1996 and 1997, the Leopold Center for Sustainable Agriculture cosponsored the project with a \$6,000 grant.

Project evaluation

Participants have demonstrated a greater understanding of the effects of privately-owned agriculture on the environment and economy. They are also much more aware of conservation legislation.

Sharing success

Farmers and businesses are showcased during field trip tours. Both urban and rural residents have benefited from this project through increased awareness and environmental understanding.

Duplication

Efforts to establish similar projects are underway in Black Hawk and Polk Counties. For more information, contact Wayne Petersen, Johnson SWCD, 238 Stevens Dr., Iowa City, IA 52240, 319/337-2322.

Walnut Wetland Goals and objectives

Walnut Wetland began with the need to move bikes and pedestrians off the streets and onto a safer pathway. The project provides a natural area and a walking and biking trail from the north side to the south side of town. Project sponsors hope to obtain land from a total of eight property owners.

Key people in this project

Many people have been important to this project, including Natural Resources Conservation Service (NRCS); Resource Conservation and Development (RC&D); Walnut City council, city clerk, and mayor; U.S. Fish and Wildlife Service; Walnut Area Development Association; Optimists Club; and local schools, community groups, and business people.

Education efforts

Students learned to do the planning, drawings, and design for the project. They researched trails and learned about



wetlands. A technical advisory team met with class representatives, and a design workshop with a landscape architect helped students put their ideas on paper. Landowner and public meetings were held to educate people interested in the project.

Project funding

More than \$70,000 has been raised through several grants from the Resource Enhancement and Protection (REAP) program, KCCI TV's Project Main Street, Trees Forever, and the U.S. Fish and Wildlife Service. The city donated the use of equipment, and local people contributed their time, materials, and labor.

Project evaluation

The project hopes to attract people who enjoy nature and exercise, as well as people looking for opportunities to shop for antiques - a major attraction in the town of Walnut. A formal evaluation has yet to be completed.

Sharing success

The project has been well-publicized, with credit given to the associated groups. KCCI has featured the project in its broadcasts, and business partners share their success with visitors. A favorable link between the schools and community has formed as a result of the project, and the entire community has benefited by having a more attractive town in which people can take pride.

Duplication

Communities that want to duplicate this project should take time planning, brainstorming, researching, and partnering. They may want to contact their local RC&D. An area development association should be created as a forum to discuss and dream about projects. Fostering community pride and responsibility is very important. For more information, contact: Shirley Fredericksen, Walnut Wetland, 1112 Morningview, Harlan, IA 51537, 712/755-2417.

Useful resources

A Guide to EE/Interpretive Services in Iowa; Iowa Association of Naturalists; ISU Extension Service, Ames, IA; 1997.

1995 Governor's Conference on Education about Conservation and the Environment; Boddy Media Group, Des Moines, IA; 1995.

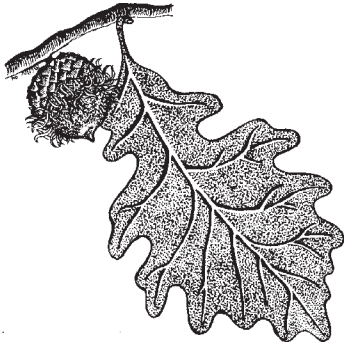
The Demon-haunted World: Science As A Candle in the Dark; Carl Sagan; Random House, New York, NY; 1995.

The Different Drum: Community Making and Peace; M. Scott Peck; Simon and Schuster, New York, NY; 1987.

The Ecology of Commerce; Paul Hawken; HarperCollins, New York, NY; 1993.

It Takes A Village; Hillary Rodham Clinton; Simon and Schuster, New York, NY; 1996.

Notes



Iowa Association of Naturalists

The Iowa Association of Naturalists (IAN) is a nonprofit organization of people interested in promoting the development of skills and education within the art of interpreting the natural and cultural environment. IAN was founded in 1978 and may be contacted by writing the Conservation Education Center, 2473 160th Rd., Guthrie Center, IA 50115, 515/747-8383.

Iowa Environmental Issues Series

In order to make wise decisions, people need a basic understanding of the factors involved in current environmental issues. They need to understand how their lifestyle is tied to these issues and how changes in lifestyle can impact the environment. The Iowa Association of Naturalists has created this series of booklets to offer a basic understandable overview of Iowa environmental issues. These booklets will assist educators in teaching students about topics that affect the Iowa environment. The seven booklets in this series are:

- Iowa Habitat Loss and Disappearing Wildlife (IAN-101)
- Iowa Air Pollution (IAN-102)
- Iowa Water Pollution (IAN-103)
- Iowa Agricultural Practices and the Environment (IAN-104)
- People, Communities, and Their Iowa Environment (IAN-105)
- Energy In Iowa (IAN-106)
- Iowa Waste Management (IAN-107)



The *Iowa Environmental Issues Series* is published by IAN with major funding from the REAP Conservation Education Board (September 1998).

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People, Communities, and Their Iowa Environment is one in a series of seven booklets that are part of the *Iowa Environmental Issues Series*. The booklets in the series include:

Iowa Environmental Issues

Iowa Habitat Loss and Disappearing Wildlife	(IAN-101)
Iowa Air Pollution	(IAN-102)
Iowa Water Pollution	(IAN-103)
Iowa Agricultural Practices and the Environment	(IAN-104)
People, Communities, and Their Iowa Environment	(IAN-105)
Energy In Iowa	(IAN-106)
Iowa Waste Management	(IAN-107)

The Iowa Association of Naturalists also has produced five other booklet series that provide readers with a clear, understandable overview of topics concerning the Iowa environment and conservation. The booklets included in each of the other five series are listed below.

Iowa Wildlife Series

Iowa Mammals	(IAN-601)
Iowa Winter Birds	(IAN-602)
Iowa Nesting Birds	(IAN-603)
Iowa Reptiles and Amphibians	(IAN-604)
Iowa Fish	(IAN-605)
Iowa Insects and Other Invertebrates	(IAN-606)

Iowa's Natural Resource Heritage

Changing Land Use and Values	(IAN 501)
Famous Iowa Conservationists	(IAN 502)
Iowa's Environmental Laws	(IAN 503)

Iowa Wildlife and People

Iowa Wildlife Management	(IAN-401)
Keeping Iowa Wildlife Wild	(IAN-402)
Misconceptions About Iowa Wildlife	(IAN-403)
State Symbols of Iowa	(IAN-404)
Iowa Food Webs and Other Interrelationships	(IAN-405)
Natural Cycles In Iowa	(IAN-406)
Iowa Biodiversity	(IAN-407)
Adapting To Iowa	(IAN-408)

Iowa Plants

Iowa's Spring Wildflowers	(IAN-301)
Iowa's Summer and Fall Wildflowers	(IAN-302)
Benefits and Dangers of Iowa Plants	(IAN-303)
Iowa's Trees	(IAN-304)
Seeds, Nuts, and Fruits of Iowa Plants	(IAN-305)
Iowa's Mushrooms and Other Nonflowering Plants	(IAN-306)
Iowa's Shrubs and Vines	(IAN-307)

Iowa's Biological Communities

Iowa's Biological Communities	(IAN-201)
Iowa Woodlands	(IAN-202)
Iowa Prairies	(IAN-203)
Iowa Wetlands	(IAN-204)
Iowa Waterways	(IAN-205)

These booklets are available to download via PDF on the ISU Extension Store:

store.extension.iastate.edu

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