Check out the
words in green!
They're hyperlinks!

How to Grow a School Forest:

A Handbook for Wisconsin Educators

Sponsored by

Wisconsin Forest Resources Education Alliance

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WFREA
Wisconsin Forest Resources
Education Alliance

By working in partnership with educators, university faculty, forest industry, and state and federal agencies, WFREA is able to accomplish its mission:

- To provide a coordinated outlet for forestry education throughout Wisconsin.
- To teach sustainable forestry - the practice of managing dynamic forest ecosystems to provide ecological, economic, social, and cultural benefits for present and future generations.

To learn more about the WFREA program and its many educational tools, visit our website (www.wfrea.org). For further information, please contact WFREA coordinator, Eden Koljord, toll-free at (888) WFREA-64, or send e-mail to wfrea@newnorth.net.

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Introduction

Whether your school forest is covered with trees or meadows or swamps or abandoned farmland, it can grow. It can grow in educational value, ecological significance, timber productivity, and recreational quality. We hope this handbook will help you!

Each Wisconsin school forest situation is unique. Some teachers and administrators will find themselves wondering where they can find 10 acres that someone is willing to donate to their school. Others might have 80 acres and are looking for a starting point. Still others might have a well-developed school forest in need of a few minor improvements to the education program, natural resource management plan, or site facilities. Whatever your situation, we hope you take on the challenge of "growing" your school forest.

This handbook starts at the beginning. It assumes you have nothing. No land, no active school forest committee, and no plans. The handbook will guide you through the steps of establishing a school forest committee, searching for land, inventorying your site, and developing a master plan. It is designed to help you collect and organize the bits of information you need to grow your forest. Put it in a binder, fill in the information pages, and add other resources. We hope we left plenty of room for you to personalize this handbook and make it work in your situation. So . . . check out the table of contents, open to the place you need to start, and good luck!

Eden Koljord
Forestry Education Coordinator
Wisconsin Forest Resources
Education Alliance

kindle \ˈkin-dᵊl\ *vb* **kindling**

1 : to start (a fire) burning : LIGHT **2** : to stir up : AROUSE
3 : to cause to glow : ILLUMINATE

Throughout this handbook you will find snippets and snapshots from school forests around the state. We thank the school forest coordinators who shared their insights, trail guides, manuals, and secrets. We hope they light a fire under your committee, stir you up, and illuminate your trail through this growth process.

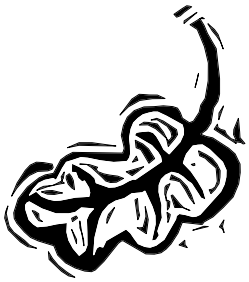
How to Grow a School Forest © 2001 WFREA & WEED

What is a School Forest?

A ***community forest*** is defined as any tract of 10 acres or more, acquired and managed primarily for the growing of forest products (e.g., pulpwood, lumber, firewood, and seedlings) for community use or commercial sale, with secondary interest in erosion control, water conservation, and improved conditions for wildlife, and owned by a county, town, city, village, school district, and certain quasi-public agencies whose articles of incorporation permit the owning of land, and whose directors or trustees formally designate by resolution or otherwise the desired use of the land for forestry purposes. (Authority: Section 66.27, Wisconsin Statutes) (1947) Repealed by 1949 C.474, Wisconsin Statutes 1969, section 28.20 Community Forests.

The most current records (1998) list over 400 community forests scattered over 67 counties in Wisconsin. The tracts of land vary in size from 3 to 7,389 acres with most between 40 and 60 acres. Combined, these forests total over 67,000 acres.

A ***school forest*** is a specialized community forest that is owned by a school district. Wisconsin State Statutes give school districts the authority to obtain school forest land.



> Section 120.13(18) **Property for ecological, agricultural, or vocational instruction.** Subject to the authority of the annual or special meeting to approve the acquisition of real property, acquire real or personal property for ecological, agricultural or vocational instruction, experimentation or other school-related purposes.

The Department of Forest Ecology and Management at the University of Wisconsin-Madison maintains the records of registered school forests. For the year 2000, the records indicate 170 registered school forests. The largest is Rhinelander School Forest at 1239 acres. The smallest is Taylor School Forest at 3 acres (note: prior to 1990, any size parcel could be registered as a school forest). A listing of all registered school forests is on pages 99 - 105 in the Appendix.

Birth of the School Forest Idea

Attitudes are not born; they are acquired by experiences. Nor are habits born, they are acquired by training. With these words of inspiration and high expectation, Wakelin "Ranger Mac" McNeel, an early school forest visionary, sent students and teachers out across the state to reclaim cut-over, burned-over land with shovel and seedling.

In the 1920s, much of northern Wisconsin had been exposed to over-harvesting and forest fires. Even though the cutting and burning cleared the land for would-be farmers, it was too rocky and too far north to be suitable for farming. Abandoned farmlands became tax-delinquent. Any bright spot in the economy of northern Wisconsin depended on either the slow, natural forest regrowth or an aggressive reforestation program.

McNeel, a state 4-H leader in the 1920s, had a vision for Wisconsin's resources - for both land and youth. And so, through sweat and dedication, Wisconsin school children became conservation stewards, or caretakers, as they replanted a Wisconsin their children and grandchildren could be proud of.

The idea of school forests was not a new one. It was borrowed from Australia and introduced to Wisconsin in 1925 by the late Dean Russell of the University of Wisconsin College of Agriculture. While visiting Australia, Russell watched school children planting trees on public tracts of land as an educational project. He thought it would be an idea that could be put to practical use in his home state.

By 1927, Russell's plan was on its way to becoming reality through legislation he spearheaded that permitted school districts to own land for forestry programs. Motivated by this legislation, and supercharged by McNeel and his colleague, Fred Trenk, a UW-Extension forester, and the people of Forest County, Wisconsin adopted the idea of school forests to promote an urgent reforestation program. Within the year, three tracts of land were donated or purchased for the first school forests in Wisconsin – in Laona, Crandon, and Wabeno. They were dedicated in the spring of 1928.

Legislation was passed in 1935 mandating that conservation education be taught in all high schools, vocational schools, and universities or colleges. School forests provided great outdoor classrooms for this type of education, and now seemed to have a firm place in a new and exciting educational movement.

Bill Sylvester, an emeritus professor of forestry at UW – Stevens Point, says, "I became involved with school forests in 1938 when I was employed by the Wisconsin Conservation Department as a

cooperative forest ranger. I worked in the central and north central parts of Wisconsin, teaching school children about conservation. I showed movies on a 16-millimeter movie machine that ran on six, six-volt batteries, since most of the one-room schools didn't have electricity. For many of those school kids, it was the first time they saw a movie."

Sylvester's work led naturally into getting involved in the establishment of school forests. In 1946, he joined the staff of a two-year-old, conservation organization called Trees For Tomorrow. As chief forester, Sylvester was, again, in a natural position to guide and oversee the development of northern school forests.

School forests gained another boost in 1949 when Wisconsin statutes involving school forests were revised. Now schools became eligible to receive free planting stock from state forest nurseries and to use the services of foresters for forest management plans.

School districts acquired lands in a variety of ways. Some were purchased, while others were donated or willed to them. Because the quality of donated lands varied greatly, school boards learned to look at such donations with caution first and gratitude later.

But most tracts of land were gained when school districts took title to tax-delinquent lands deeded by counties. When titles were given to school districts, they were generally transferred for a small purchase price, often only $1.

Keeping school forests going required some creative financing on the part of school administrators and teachers. "By bending the arms of local service clubs and other possible donors, capital improvements were made on many school forests," said Sylvester.

In addition, school districts picked up part of the tab to pay for employees, and for transporting students to and from forest lands. Sylvester added, "The Medford School Forest found a creative solution to their need for roads...they called in the National Guard to build them."

Success of the school forest system depended on the sense of ownership gained by the students. A "School Forest Covenant" was repeated and signed by students before working on their school forests. Each year, this pledge was repeated by the entire student body to re-emphasize their obligation.

Founders intended for school forests to provide students with hands-on experience in tree planting and forest management. Their foresight made outdoor laboratories available to all students, and gave them a real understanding of the interrelationships of natural resources. Although conservation education has evolved and taken on several new names, the concept remains the same today.

According to Sylvester, the school forest idea caught on right away and quickly spread throughout the state. But with the approach and arrival of World War II, things slowed down. "Many of the little country school districts were swallowed up and disappeared from the map." In most cases, those school forests just went back to the counties.

In addition, much of the early success was attributed to the enthusiasm of key people charged with administering their local programs. Some school forest programs simply stopped with the passing of early, spirited leaders.

But many school forests are still alive and well over 70 years after their seeds were planted. Sylvester is optimistic. "I don't think the program has peaked yet, at least not from the standpoint of possible activity," he said. "School forests have probably far exceeded any of the expectations of the founders, but they still have tremendous educational possibilities."

Reprinted with permission from an article written by Gail Gilson-Pierce which appeared in the Winter 1994 addition of *Northbound*, Volume 13, Number 4.

School Forest Covenant

This covenant was written for the dedications of Wisconsin's first school forests. In the spring of 1928, school children in Crandon, Laona, and Wabeno repeated and signed it.

WE KNOW that Trees, along with Water and Soil, are among Nature's most valuable gifts, upon them human life depends.

WE KNOW history reveals that Nature punishes those people who abuse these gifts, and awards joys of abundance to those who understand and appreciate them.

WE KNOW that the welfare of the approaching years depends in a large measure upon how well the youth of today are prepared to be the guardians of these gifts.

KNOWING these things, we, the students of _____, of _____ County, Wisconsin, gladly accept the responsibility of planting and protecting the school forest entrusted to us.

Benefits of a Good School Forest Program

Benefits to Students

A strong school forest program:

- Fosters a sense of pride and belonging within students.
- Encourages the development of research, communication, problem-solving, consensus building, critical thinking, and leadership skills.
- Offers students real-life, hands-on experiences in responsible citizenship and citizen action.
- Demonstrates the complex interrelationships of the natural world and the complexity of environmental issues.
- Develops within students a working knowledge of conservation, management, and stewardship of natural resources.

Kindling

from the Madison School Forest

When you want to see people come alive, get 'em out to the school forest.
Rick Kalvelage, Director

What they experience is the outdoors. They have the pleasure of interacting with birds, trees, grass, and of being away from concrete. Everything that is wonderful about being outside! There are many children that never have this opportunity. It's critically important that they understand the environment by being in the environment. *David Wandel, Parent*

Most of our kids don't have an opportunity to come to a place like this without coming to the school forest. They learn about being a part of a community, taking care of each other, and life skills. The naturalists that come out do wonderful programs on mammals, birds, and plants. The kids get to see a part of nature that they can't see in the classroom. It's impossible to do what they do out here in the classroom. They love it! *Tara DeSciscio-Fussell, Teacher*

- Demonstrates to students what can be accomplished when dedicated groups of people work together.
- Connects academic studies to real-life learning experiences and to the community.
- Allows students to learn in a variety of ways, including cooperative learning, mentoring, active learning, and service learning.
- Encourages students to develop care and concern for the environment and to examine their environmental values.
- Gets students outdoors on a regular basis so that their young minds can thrive in a stimulating environment.

Benefits to Teachers

A strong school forest program:

- Allows teachers to model their care for the earth instead of simply talking about it.
- Helps teachers infuse environmental education into their curricula and address state academic standards.
- Encourages creative teaching methods and techniques.
- Offers opportunities for professional development in the fields of environmental education, resource management, and curriculum writing.
- Gives teachers a chance to see their students in a different light – often witnessing students who have problems blossoming in the outdoor classroom.
- Promotes problem-solving with peers and networking with colleagues throughout the state.
- Allows teachers to learn alongside their students.
- Promotes interdisciplinary studies that tend to infuse new life into subjects.
- Provides a site for long-term environmental monitoring.

Benefits to the School District

A strong school forest program:

- Improves public relations between the school district and the community.
- Provides a wide range of educational offerings for students and teachers.
- Helps school districts put their district-wide environmental education plan into meaningful use.

- Offers an active learning environment and a positive physical setting for learning.
- Promotes partnerships with the community.
- Provides a source of income for activities at the school forest.
- Incorporates environmental topics and nature activities into the curriculum.

Benefits to the Community

A strong school forest program:

- Brings together organizations, businesses, and educational institutions to form partnerships for stewardship.
- Contributes to the ecological health of the area by offering watershed protection and habitat improvement.
- Enhances the psychological health of the community by providing "green space" and aesthetic beauty.
- Provides educational, cultural, and recreational opportunities.
- Serves as an example to other landowners in the area by demonstrating effective natural resource management techniques and planning.

Get Started

Just a word of warning, getting started might be the easy part! A school forest project is probably like building a house – it is never really "done." When you get one project completed, your committee might see five new things that you would love to do!

And there's no one right way to do it. This handbook outlines one approach. You might change the order or skip steps. That's OK! Just work together as a team and do it!

Communicate, Communicate, Communicate!

The importance of good, consistent, informative communication cannot be stressed enough. There is no guarantee of success, but your project will be further ahead if you can keep fellow educators, the school board, students, the community, and your supporters informed of progress. Be sure you funnel your communication through proper channels.

If your school forest is "in the news", it will also be easier to ask for and receive funding and other forms of assistance.

Here are some ways to keep everyone up to date:

- Let students tell the story.
- Use photographic and PowerPoint slide presentations.
- Create a school forest newsletter.
- Write articles for school/staff newsletters.
- Work with local newspapers to ensure coverage of events.
- Develop displays and bulletin boards.
- Coordinate parent/staff dinners and programs.
- Hold an open house at the school forest.
- Give presentations to community groups.

Kindling

from Tri-County School Forest

Larry Mancl and the school forest committee keep photo albums of all activities and trips to the forest. They display them at parent-teacher conferences, in the principal's office, and in the school board meeting room! That sounds like great PR!

Kindling

from the Boston School Forest in Stevens Point

Each June, Sally Ellingboe presents an annual report to the school board. Keeping the school board informed of usage, funding, and special projects is essential.

Boston School Forest Annual Report
1999 - 2000 School Year

I. Student Totals

A. School Groups

Early Childhood - Grade 2	1900
Grades 3-4	1400
Grades 5-6	1250
Grades 7-12 + UW-SP	500
Total	**5050**

B. Weekend and Evening Use 1400

C. **Combined Total** **6450**

II. Donations

Whitetails Unlimited, Inc.	$2000
PTO	$1900
Master Gardeners	$500
Anonymous	$500
Bannach Ice Cream Sale	$200
Memorials	$135
Totals	**$5235**

III. In-kind Donations
Copps (hot cocoa mix, lemonade, crackers)
Jay-Mar (corn and bird seed)
Bobber's Down Bait (worms)
Tom Loomis (mounted musk ox, alligator skull)

IV. Special Projects

A. Teacher Workshop - Butterflies
B. Summer School Science - Grades 6-8
C. Annual Tree Sale - $1050
D. Eagle Scout Projects - Trail Maintenance
E. New Storage Shed - SPASH Alternative High School
F. Web Site (www.wisp.kl2.wi.us/schools/bsf)
G. SPASH Special Projects
H. Staff Recertification - CPR and Red Cross
I. New Caretaker - Residence Improvements (15 years old)
J. Charter School Proposal

Get Your Hands on Land!

Do you already have a school forest? Sometimes only administrators or senior staff members remember where the school forest is. A county plat map can help you locate a forgotten forest.

If your school does not own any land, start looking! Your initial school forest committee might be a land search committee. Be sure you include natural resource and legal specialists throughout the land search process.

Consider Your Criteria

Here are a few of the factors you can use to evaluate possible sites:

- Distance from schools in the district – Check to be sure bus costs or scheduling problems will not limit the use of the land. School forests that are on school grounds or within walking distance are used more frequently than other forests.[1]
- Diversity of natural communities (e.g., woods, prairies, wetlands, lakes) – The more different kinds of sites a school forest has, the more often it is used by students.[1]
- Existing structures and utilities – The more facilities available at the school forest, the more frequently students and community groups use it.[1]
- Past land uses – This can be positive or negative. The site might be rich with Native American history or it could be a former industrial site.
- Size – A school forest must be at least 10 acres to be registered.

[1] *School Forests in Wisconsin: A Report on the 1999 Statewide Survey of Wisconsin's School Forest Coordinators*, June, 2000. Prepared for the Wisconsin Department of Natural Resources, Division of Forestry, in partnership with UW-Extension, the Conservation Education Program of the U.S. Forest Service , and the Wisconsin Department of Public Instruction by Rebecca Krantz, M.S., Wisconsin Survey Research Laboratory, University of Wisconsin – Extension, Madison, Wisconsin.

Check into Sources of Land

You will want to work closely with a legal advisor as you investigate possible sources of land. Some of these sources are further described below:

- Donated land
- Tax-forfeited land
- Foreclosed land
- Conservation easements
- Government surplus land
- Leased or rented land
- Purchased land

Tax-Forfeited Land

Many of the early school forests were started when school districts received title to tax-delinquent lands. The titles were generally transferred for a small purchase price, often only $1. Unfortunately, times have changed and all land – including tax delinquent land – is in high demand.

Schools can still receive tax-forfeited lands, but they no longer seem to receive the same preferential treatment. If you are interested in tax-forfeited lands, you should contact the County Clerk and ask that your district's name be added to the list of interested purchasers. Once your school district's name is on the list, you will receive notice of land as it becomes available. Your district will then bid on the land, usually through a sealed bid. The highest bidder will be awarded the property.

Foreclosed Land

When landowners can no longer pay mortgage on their land, the lands are foreclosed. The County Sheriff's office handles foreclosure. Foreclosed lands are listed in local newspapers. Land is usually auctioned off to the highest bidder. Caution: Successful bidders are usually responsible for late mortgage payments *and* any back taxes. Be sure to get legal advice before bidding on a foreclosed piece of property.

Conservation Easements

A conservation easement is a legal agreement a property owner makes to restrict the type and amount of development that may take place on his or her property. In signing an easement, the landowner gives away certain rights to the land and places restrictions on its future use. The owner and the prospective easement holder identify the rights and restrictions on use that are necessary to protect the property – what can and cannot be done to it. The owner then conveys the right to enforce those restrictions to a qualified conservation recipient, such as a public agency, a land trust, or a historic preservation organization. A conservation easement is a great way for qualifying landowners to conserve their land while realizing income, property, and estate tax benefits. If having your land qualify as a registered school forest is one of your goals, a conservation easement is probably not a good choice, since the deed is not transferred. For more information on conservation easements, contact:

- ***Gathering Waters Conservancy.*** This is a land conservation organization formed in 1995 to assist land trusts, landowners, and communities in their efforts to protect Wisconsin's land and water resources. This state organization should be your first point of contact. Staff can refer you to your local land trust. Contact: 211 S. Paterson St. Suite 180, Madison, WI 53703, (608) 251-9131, <www.gatheringwaters.org>.

Kindling

from West Salem School Forest

Barb Thompson reports that her school district received its school forest from Fort McCoy military base!

- ***The Land Trust Alliance.*** **This is a national organization that can offer more general information on land trusts. Contact: 1331 H St. NW, Suite 400, Washington, DC 20005, (202) 638-4725, <www.lta.org>.**

Kindling

from Tri-County School Forest

Larry Mancl reports that their school district "got" 160 acres through a conservation easement. Here is part of their official document:

Quit Claim Deed

BY THIS DEED, ___(names of landowners)___, husband and wife, Grantor, quit-claims to Tri-County Area School District, Grantee, for a good consideration, an easement on the following described real estate in Waushara County, State of Wisconsin:

Parcels of land located in Section 1, Township 19 North, Range 8 East, as follows:

PARCEL I: The East 1/2 of the Southeast 1/4 of the Southwest 1/4. . .

END OF DESCRIPTION.

This easement is what is commonly known as a conservation easement and runs with the land. By this conveyance the above described land shall be subject to the following restrictions and covenants:

1. No more than 4 residences may be maintained.
2. No commercial use may be made of the property other than proper maintenance and sale of timber and related uses.
3. The land shall be maintained as woodland and all reasonable efforts will be used to maintain a wildlife habitat.
4. A shelter may also be constructed on the site for student and community education. Any construction plans would have to have the written approval of both parties or their heirs, successors and assigns.
5. All reasonable efforts will be used to husband the vegetation on the parcels including proper trimming and replanting of trees.

Executed at Hancock, Wisconsin, this 8th day of August, 1991.

(You'll need to have an attorney draft your conservation easement . If your attorney is not familiar with this type of easement, contact *Gathering Waters* for copies of model documents.)

Ensure the Future of the School Forest

You will want to ensure that your school forest will always be a school forest! A deed restriction will prevent future development or rezoning of the area. You will want the wording to be strong enough to protect the school forest, but loose enough to allow your school district to construct classrooms or lodging as your program grows.

Kindling

from Madison School Forest

Rick Kalvelage strongly recommends that you have a deed restriction to protect the future of your school forest. Here is the wording placed in their deed: "This land or property (legal description) will remain forever as a School Forest as we have defined school forest. It will remain a School Forest even in the event the school district is dissolved or comes under private, state, municipal, or corporate ownership or control of any other heir to said property."

Register Your School Forest

You will probably want to register the land as a school forest. Being registered qualifies your school forest for:

- Free trees from the state forest nurseries for reforestation. See page 128 in the Appendix for more information about the WDNR's free tree program.
- Free technical assistance from WDNR foresters in carrying out tree planting and forest management plans.

Criteria for Registered School Forests

You will need to meet the following criteria to register:

- Lands must be under the control of the school district through deed, lease, or contract.
- Lands should be a minimum of 10 contiguous acres dedicated to forestry and be an average width of at least 120 feet.
- Eighty percent of the lands should be stocked with productive forest types; twenty percent of the area may be in marsh, swamp, brush, open field, roads, water, or other cover type. Exception:

Areas not meeting the eighty percent stocking requirement may be conditionally entered if there is a written plan to meet the requirement by planting trees.

- The school forest committee must show that they intend to maintain the lands and demonstrate good forestland management. They must complete a management plan in cooperation with (or approved by) a WDNR Forester within one year of the approval date.

Registration Process

Note: A list of registered school forests is on pages 99 - 105 in the Appendix in case you are unsure of your school forest's status.

1. To register, you should complete the application (WDNR form 2400-88 is found on page 129 in the Appendix) and submit it to the WDNR forester in your county. You can also ask this forester for assistance in completing the application. See pages 107 - 110 in the Appendix for a listing of WDNR foresters by county.
2. The WDNR forester then reviews the application for eligibility. Applications that do not meet the criteria for entry will be returned with an explanation.
3. In an ideal situation, the WDNR forester will serve on your school forest committee and work with you throughout the planning process that follows in this handbook. To meet the criteria for registering, your committee must at least meet with the forester to discuss the school forest's management plan. The forester will look at the land and prepare a report which includes a map of the vegetation and comments regarding the condition of the land.
4. The WDNR forester sends the completed report and map, along with a recommendation for entry or rejection, to the UW-Extension Forester. With the assistance of the WDNR Forest Resource Education and Awareness Specialist, the UW-Extension Forester makes a final decision on acceptance.

Sprout an Idea for Growth

Whether your school forest is a brand new parcel, a forgotten piece of land, or a residential environmental education center, there is always room for improvement. You may need to start at the very beginning and plow through each page, or maybe you can skip right to a certain phase of master planning that you need to nurture. Just remember, the handbook is to be a guide and an inspiration – not a burden. Use it to help your ideas take root and grow.

Ok, you're excited. You know of several other teachers and school administrators who think an improved school forest will enhance your educational programming. It's time to take your idea to the school board.

Work with the School Board

It is the role of the school board to pass a resolution to establish a school forest. If a school forest already exists, it would be the school board's responsibility to approve the formation and proposed membership of a school forest committee.

Keep the school board informed of each step in the process. Be sure a school board member serves on your committee. Involve students in preparing fact sheets or giving presentations at school board meetings. Did we mention communication is important?

Plan how you will present your proposal to the school board.

- Don't do it alone. Your proposal will carry more weight if student and/or teacher representatives from several classes/schools are involved.
- Secure the support of the superintendent and ask him/her to introduce the idea to the school board. Since this support is essential, the superintendent's involvement will strengthen your proposal.
- Be ready to educate school board members on the location, size, and basic features of the school forest.
- Anticipate their questions and be ready with answers.
- Come with a list of proposed members to the school forest committee. In advance, contact these people to see whether they would serve if appointed.
- Invite school forest advocates from surrounding school districts to describe the benefits their schools and communities have enjoyed.
- Share a 6-minute video vignette prepared by WFREA. The video gives a quick snapshot of several successful school forest programs in our state. Contact WFREA for details concerning availability of this resource.

Form a School Forest Committee

Let's face it. This isn't going to be easy. One or two people can't do this alone. You are going to need a broad base of support – interested people committed to seeing the project through to completion. Involving a wide variety of people from the beginning will help prevent burnout and keep interest high. It will also ensure that teachers, students, administrators, and the community feel a sense of ownership in the school forest.

The school forest committee will initially be responsible for:

- Selecting a school forest coordinator.
- Inventorying the cultural and natural features of the site or arranging for the inventory process.
- Investigating curriculum development, resource management planning, and facility improvements.
- Writing the master plan.

The long-term responsibilities of the school forest committee include:

- Coordinating the development of environmental education programs at the school forest with district or school curriculum needs.
- Making recommendations to the school board for the development, maintenance, and use of the school forest.
- Implementing and evaluating the master plan.

Be sure expectations are clear from the beginning.

- Establish frequency and length of meetings. This may vary as you develop your school forest. Your group might initially need to meet more often. Don't meet just for the sake of meeting!
- Define the role of the school forest committee. Will the committee be an advisory committee or a decision-making committee?
- Define the role that students will play in the planning and development process.
- Define the expectations of each member. Are individuals on the board to support the program, provide funding sources, coordinate work projects, or provide leadership?

School Forest Coordinator

One of the first tasks of the committee should be to select a school forest coordinator. This person should be able to:

- Chair the school forest committee.
- Coordinate communication with the school board.
- Assist teachers in using the school forest.

- Coordinate and schedule activities.
- Supervise the maintenance of facilities and trails.
- Oversee the implementation of the forest management plan.
- Maintain contacts with the community, foresters, and media.

Kindling

from almost every school forest coordinator in the state!

One of the keys to a successful school forest program is a qualified full-time coordinator. If your school forest doesn't have one, encourage your district to consider adding this position. As coordinator Sally Ellingboe says, "I do a lot of the leg work so the teachers can do a lot more of the teaching."

Potential Committee Members

This is an extensive list of all the players in the school forest planning process. You will want to be sure your school forest committee is large enough to be inclusive, yet small enough to be effective. Committees of seven, nine, or eleven people seem to be more productive. Try to have members of the committee fill more than one role. For example, select a parent who is a forester or a teacher who belongs to several community organizations. Remember that many of these people can be involved in subcommittees or included in other ways. Some of these people may visit with students to teach a skill or share information. Others may provide funding, materials, or labor.

- School board members
- School administration representative – Include your school superintendent, a school district administrator, or a building principal.
- Teachers – Include at least one elementary, middle, and high school teacher. You might also need the expertise of curriculum consultants.
- Students – Include at least one elementary, middle, and high school student.
- Parents – Include a PTA representative or other interested parent.

- Educators – Include environmental education specialists from area nature centers or agencies. Also consider these options:
  - UWEX has natural resource educators assigned to specific regions of the state. See pages 113 - 114 in the Appendix for a listing of these resource people.
  - For a listing of WDNR statewide and regional educators, see pages 111 - 113 in the Appendix.
  - Retired school district teachers and administrators can also bring an historical perspective and sense of commitment to your school forest committee.
- Foresters – Include at least one forester who can commit to the whole project. Consider local foresters from:
  - Wisconsin Department of Natural Resources, listed on pages 107 - 110 of the Appendix.
  - University of Wisconsin – Extension
  - USDA Forest Service
  - Wisconsin Society of American Foresters
  - Forest industry
- Other resource specialists – Include other natural resource specialists who could help to address the special qualities of your school forest. Depending on your community types, you might want to include individuals with an expertise in:
  - Wildlife or fish management
  - Water resource conservation
  - Wetland/grassland/prairie management
  - Endangered species preservation
  - Landscape architecture or design
  - Archeology
  - Other possible specialists might be employed by agencies such as Soil and Water Conservation Districts, Natural Resource Conservation Service (formerly SCS), Bureau of Indian Affairs, County Land Conservation Departments, and your county UW – Extension.

- Local government representatives – Consider inviting a county commissioner, city or county planner, or employee of the parks and recreation department. Even local divisions of the National Guard, Army Reserve, or Army Corps of Engineers might be interested in the school forest for readiness drills or physical fitness training.

- Community representatives – Many organizations in the community are potential sources for support, funding, or muscle power. Including them in the planning process might pay off in the end. Consider:
  - Youth organizations (4-H, Boy Scouts, Girl Scouts, YWCA, YMCA, Pioneers, Boys and Girls Clubs, day care centers, after school clubs, church youth groups)
  - Civic groups (Elks, Jaycees, Kiwanis, Lions, Rotary)
  - Garden clubs
  - Businesses in the community (e.g., logging industry)
  - Neighboring public and private schools that do not have a school forest of their own or have a piece of land with different natural resources
  - Universities, colleges, and technical/vocational schools
  - State or national organizations dedicated to land conservation or wildlife habitat improvement that may have local chapters or representatives. See pages 117 - 119 in the Appendix for a listing of organizations.
- Other school forest users – Don't forget to draw upon the resources of other potential users not already listed above. This might include local churches, bird watching groups, joggers, hikers, hunter safety instructors, and neighborhood associations.
- School forest neighbors – Consider landowners who might be impacted by an increase in the use of the forest. These neighbors can be valuable "watchdogs" of the property, especially if it is not adjacent to the school.

Members of Your School Forest Committee

Name _____

Role _____

School _____

Address _____

City, State, Zip _____

Phone _____

Fax _____

email _____

Name _____

Role _____

School _____

Address _____

City, State, Zip _____

Phone _____

Fax _____

email _____

Name _____

Role _____

School _____

Address _____

City, State, Zip _____

Phone _____

Fax _____

email _____

Name _____

Role _____

School _____

Address _____

City, State, Zip _____

Phone _____

Fax _____

email _____

Kindling

from the author!

Duplicate these worksheet pages before filling them in. Then you will always have fresh masters to work from as your committee and school forest change and grow.

Visit the Site

Plan to visit your school forest property as a committee early in the planning process. Visit with resource management and education specialists. They might be able to see the potential. Don't be overwhelmed by the process. You are going to tackle it one piece at a time. This initial visit will help you prioritize needs, assess what is there, evaluate the workload, and focus your purpose. You can keep this initial exploratory visit very simple or you can use it to begin your information gathering and inventorying process. See *Inventory the Resource* on page 45, for lists of the types of things you will want to take note of during site visits.

Form Subcommittees

Following are some possible subcommittees and a brief description of their roles. Some will be standing committees that should meet on a regular basis. Others are more organizational and may form for the purpose of developing the master plan only. Others will form to accomplish a specific activity and then disband or redirect their energies. Choose the subcommittees that fit your situation best. Don't be afraid to combine or split committees.

Membership and roles are merely suggestions. Each situation is unique. It is very important that the chairs of these subcommittees be on the school forest committee or at least report to the chair on a regular basis. Did we mention that communication is important?

Curriculum

Members – This subcommittee could include:

- Representative teachers from each grade level, building, and/or discipline. We recommend choosing at least 4 teachers, one each from K-2, 3-5, 6-8, and 9-12. Teachers should be chosen carefully to represent a broad range of experience and to represent as many teaching situations as possible.
- Environmental educators from nature centers or government agencies
- Curriculum specialists in science, math, social studies, language arts, and other specialty areas such as physical education and art

Role – The curriculum committee would be responsible for:

- Reviewing the academic standards and existing curricula of the district.
- Reviewing sample school forest curricula and environmental education curriculum guides and activities.
- Determining the scope and sequence of the school forest curriculum and how it connects with existing curricula and state standards.
- Coordinating with the resource management and facilities subcommittees to be sure the school forest meets educational needs.

- Training teachers so that they are comfortable with and knowledgeable about using the school forest as an educational resource.
- Coordinating a mentoring program by training high school students as counselors and arranging for them to work with students at the forest, if appropriate and practical.
- Acquiring the teaching materials needed at the school forest.
- Continuing to research new curriculum guides and other educational resources.

Natural Resource Management

Members – This subcommittee could include:

- Teachers
- Students
- Resource specialists such as foresters, wetland/grassland/prairie managers, wildlife managers, and water resource specialists
- Community representatives

Role – The natural resource management committee would be responsible for:

- Coordinating the inventory of the school forest's natural resources.
- Working with professional foresters and school staff to develop a management plan that enhances the educational potential of the resource.
- Implementing the plan by overseeing land management activities.
- Evaluating and updating the plan.

Facilities

Members – This subcommittee could include:

- Teachers
- Students
- School district maintenance staff
- Local contractors, builders, or other members of the business community

Role – The facilities committee would be responsible for:

- Inventorying existing facilities.
- Working with the curriculum committee to design facilities that enhance the educational potential of the school forest.
- Recommending facility improvements to the school board.
- Maintaining the site facilities.

Finance

Members – This subcommittee could include:

- School board members or school administrators
- Teachers
- Students
- Representatives of the business community (e.g., a banker)

Role – The finance committee would be responsible for:

- Accounting for receipt and disbursement of all funds.
- Administering grant monies.
- Budgeting for transportation, maintenance, utilities, inservice training, equipment, development, and special projects.
- Arranging and/or approving all external contracts for work on the school forest property (e.g., timber harvest and building construction).

Fundraising

Members – This subcommittee could include:

- Teachers
- Students
- School administrators
- Local media representatives, marketing specialists, or other community members
- PTA representatives

Role – The fundraising committee would be responsible for:

- Generating funds for the school forest.
- Soliciting local organizations, businesses, and the forest industry for donations of time, equipment, and money.
- Keeping good records of all local fundraising so that individuals, businesses, or organizations are not contacted repeatedly or after rejection.
- Thanking donors.

Grant Writing

Members – This subcommittee could include:

- Teachers
- School board or administration representatives
- Partners such as community organizers, nature center staff, state and federal personnel, parents, or business representatives – especially those with grant writing experience

Role – The grant writing committee would be responsible for:

- Coordinating with other committees to determine the types of funding that are needed.
- Researching sources of grants.
- Writing grants to garner funds for projects on the school forest.

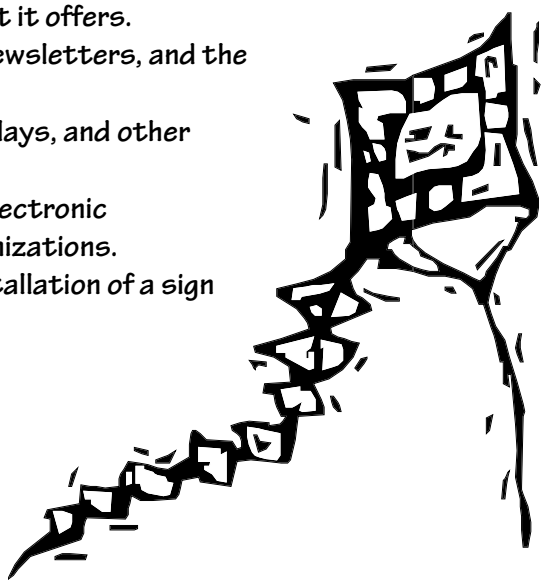
Publicity/Marketing

Members– This subcommittee could include:

- Teachers
- Students
- PTA representatives
- Local business representatives (e.g., media, marketing)

Role – The publicity and marketing committee would be responsible for:

- Keeping teachers, students, school board members, and the community aware of the school forest and what it offers.
- Writing articles for local newspapers, school newsletters, and the district newsletter.
- Developing store window displays, hallway displays, and other temporary exhibits.
- Producing media fact sheets, slide shows, or electronic presentations to take to businesses and organizations.
- Designing and coordinating production and installation of a sign for the entrance to the school forest.



Community Outreach

Members – This subcommittee could include:

- Teachers
- Students
- Representatives from youth organizations
- Representatives from local service clubs

Role – The community outreach committee would be responsible for:

- Coordinating community events (such as open houses) and educational programs at the school forest.
- Recommending land use policies for the school board's approval (e.g., hours, rules, community recreational use)
- Soliciting volunteers and organizing volunteer workdays.

Historical Archives

Members – This subcommittee could include:

- Teachers
- Students
- Retired teachers and administrators
- Historians or long-time community residents (e.g., members of a local historical society)

Role – The historical archives committee would be responsible for:

- Coordinating research projects on the school forest.
- Making past research available to teachers, students, and the community.
- Ensuring that current activities and events are preserved for future reference in the form of photos, maps, newspaper articles, and other recordings.

Special Projects

Members – This subcommittee could include:

- Teachers
- Students
- Resource specialists or community resource people who can assist in the project

Role – The special projects committee would be responsible for:

- Coordinating the design and completion of special projects that do not fit in the realm of other committees or are substantial projects requiring extra work (e.g., building a classroom, constructing an accessible trail, installing a parking lot, or coordinating an all day inservice training for teachers).

Reproduce and complete for each subcommittee.

School Forest Subcommittees!

Name of Subcommittee _____

Chair of Subcommittee _____

Title _____

Contact Info _____

Subcommittee Members

Name _____

Title _____

Expertise _____

Contact Info _____

Name _____

Title _____

Expertise _____

Contact Info _____

Name _____

Title _____

Expertise _____

Contact Info _____

Name _____

Title _____

Expertise _____

Contact Info _____

Name _____

Title _____

Expertise _____

Contact Info _____

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Record Growth

You will want to keep a complete record of your school forest project. Keeping records will:

- Help to ensure the continued growth of the school forest despite changes in administration, staff, and committee members.
- Help parents and the community see the value of the school forest.
- Remind students of all they have accomplished.
- Provide valuable background for future committee members.
- Come in very handy when you need to show potential donors the great work you have been doing.

Some administrative information that you will want to keep includes:

- Lists of committee members and their affiliations.
- Attendance and use statistics for each year (to show growth in the program).
- Copies of newspaper articles and other media coverage related to the school forest.
- Copies of all policies.
- Proposed and actual budget reports.
- Financial records, receipts, and warranties.
- Good notes of what worked and what didn't work.
- Copies of all grants submitted (even if they weren't successful).
- Contacts that have been made and the responses.

All of the maps, photos, and inventory sheets should also be a part of your record. Try to also collect personal reflections and impressions as part of your official record! Poetry, art, and other forms of expression will give your school forest records a personal touch.

Kindling

from the Madison School Forest

Dave Spitzer and his 4th grade students at Lincoln Elementary School have written ***The School Forest Guidebook***. It is a wonderful record of history, plants, animals, and reflections. You can read it online at <www.madison.k12.wi.us/forest/edguide.htm>.

Be Creative

Whenever possible, use archival quality materials to preserve your records. Here are some creative and traditional ways to record your growth:

- Photo albums – Capture action shots of kids and volunteers at work and at play. Be sure to take "before and after" photos of all projects.

- Growth photos – Set up a series of posts at strategic points on the property. On a seasonal or annual basis, take reference pictures from the posts. By maintaining a regular interval at a specified angle, you will gain incredible insight into how the school forest is growing and changing.
- Slides – Slides will come in handy for public relations talks and promotional pieces.
- Digital images – These images can be used for websites, electronic communication, and PowerPoint/HyperStudio presentations.
- Videos
- Maps – A base map with overlays can help people visualize the direction of school forest projects and remind them how far implementation has progressed.
- News articles – Keep all newspaper articles related to the forest.
- Species lists – Keep a record of all the plant and animal species observed or collected at the school forest. Note when a species was first documented on the land. Record all species planted on the property.

Involve Students

As with most aspects of this planning process, students should also be doing most of the record keeping. They are great recorders. Encourage language arts and visual arts teachers to use the school forest in their curricula to teach and reinforce skills such as writing and drawing. Staff can also encourage school clubs to take part in the school forest. For example, the photography club could be asked to do an exhibit on the forest in winter. In addition to many of the ideas suggested above, here are some ways students can keep track of growth:

- Scrapbook – Invite a parent with scrapbooking skills to teach kids how to preserve their memories of the school forest.
- Poetry
- Drawings, sketches, sculptures!
- Journal keeping – Encourage kids to keep a "log" of their school forest experiences, findings, and impressions.
- Phenology records – Keep a calendar where students can record seasonal happenings such as wildlife sightings, flowers blooming, and weather events. Compare the recordings from one year to the next.
- Maps – Create maps that show the locations of animal signs, harvesting operations, or other happenings on the land.

Gather Information

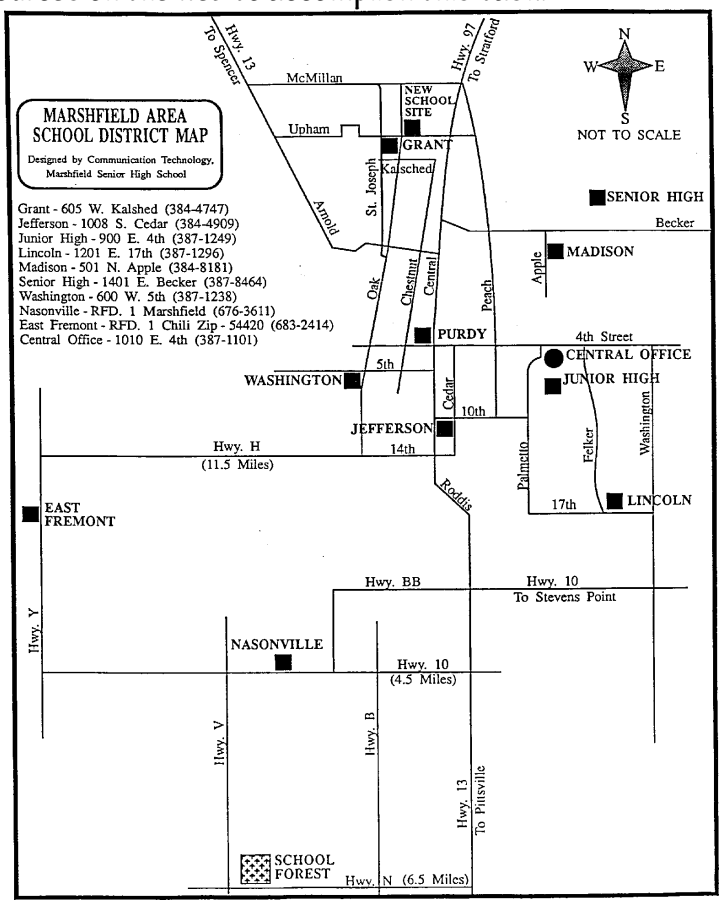
You will need some basic information about your school forest land in order to plan. It may not be necessary to conduct all this research before beginning the master planning process. However, sometime in the process, involve your students in researching the past uses of the land that is now their school forest. Research topics marked with a "★" will need to be done early to plan effectively.

Search for "ROOTS"

Look back in time to find out as much as you can about your school forest.

★ Map the School District and Forest

Ask if your school district already has a map indicating size and shape of the district and the location of schools within the district. If not, use a detailed road map (e.g., a county map or Gazetteer map) to locate the school forest in relation to your school district. On the map, indicate the locations of all of the schools that would be using the school forest. Determine walking/driving distances and times from each location to the school forest. You and your students might be able to use mapping resources on the web to accomplish this task.



Kindling

from Marshfield School Forest

Communication Technology students in Marshfield created a map that shows locations and addresses of all schools and connecting roads. Not only does this type of map help in the planning process, it is also a good communication tool to use at meetings.

* Determine the Legal Description

Understanding the Public Land Survey System

You will need to know the town, range, section, and quarter section for your school forest in order to obtain many maps and legal documents.

- ***State Historical Society of Wisconsin.*** Check out this website for information that will help you identify townships in Wisconsin according to the U.S. Rectangular Land Survey. <www.shsw.wisc.edu/localhistory/articles/survey%5Fmap.htm>
- ***Wisconsin Department of Natural Resources.*** Information on this website will help you and your students understand the way our state was surveyed and make sense of the numbering system. <www.dnr.state.wi.us/org/land/forestry/Private/PLSSTut/plsstut1.htm>

Finding Your School Forest's Legal Description

First check with the district administration office. A title, deed, or land abstract should be on file. Make a copy of it to include in your school forest's permanent records. If you are unable to find a record of ownership, call the County Register of Deeds. You will probably need to go to the County Courthouse and work with the Real Property Lister or Register of Deeds to obtain the description.

Your legal description should at least include the town, range, section, and quarter section. It might be very simple. For example, a 640-acre school forest in central Wisconsin might be described by Section 26 of Township 28 North, Range 7 East. On the other hand, if your forest is an odd shape, you might have a legal description that is several pages long.

This diagram shows how a section of land is divided into smaller parcels and indicates how parcels would be described.

<table>
<tr><td>NW 1/4
(160 acres)</td><td>W 1/2 of
NE 1/4
(80 acres)</td><td>E 1/2 of
NE 1/4
(80 acres)</td></tr>
<tr><td>N 1/2 of
SW 1/4
(80 acres)</td><td>NW 1/4 of
SE 1/4
(40 acres)</td><td>NE1/4 of
SE 1/4
(40 acres)</td></tr>
<tr><td rowspan="2">S 1/2 of
SW 1/4
(80 acres)</td><td rowspan="2">SW 1/4 of
SE 1/4
(40 acres)</td><td>N 1/2 of SE 1/4
of SE 1/4
(20 acres)</td></tr>
<tr><td>S 1/2 of SE 1/4
of SE 1/4
(20 acres)</td></tr>
</table>

Our School Forest. . .

Is located in:
The state of _____

The county of _____

The township of _____

Legal Description:
Section ____

Township ____ ____ (N or S)

Range ____ ____ (E or W)

The legal description is _____

_____

_____

_____

_____

_____

_____

County Map

Draw a map of your county. Sketch in where your school forest is located.

Township Map

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Section Map

Note:

If your school forest is made up of several parcels of land, complete this page for each property.

If your school forest crosses over township or section boundaries, you will need to copy these diagrams and tape several together before you can sketch in your forest.

Find Original Land Survey Notes

Locating Early Survey Notes

Surveyors' field notes are very interesting and will reveal a lot about what your area looked like prior to European settlement. To view microfilm copies of them, you must know the town, range, and section of the forest. The original notes are kept by the Board of Commissioners of Public Lands in Madison. You can obtain copies through one or more of the following sources:

- Contact your county's Register of Deeds or County Surveyor to see if copies are available locally.
- Order copies at your local library through interlibrary loan.
- Contact the ***State Historical Society of Wisconsin***, 816 State St., Madison, WI 53706, (608) 264-6400, <www.shsw.wisc.edu>.

Interpreting Field Notes

The surveyor's field notes were hand written in the field. The surveyors wrote in cursive – often using terms and symbols that are unfamiliar to us today. The small notebooks that the surveyors used were exposed to all types of weather. If those factors weren't enough to make interpretation difficult, the microfilming process has also added to the lack of clarity. In short, interpretation is often challenging. You can find out more about the story behind the surveyors and how to interpret the field notes in these resources:

- ***State Historical Society of Wisconsin*** <www.shsw.wisc.edu/localhistory/articles/surveyor.htm>
- *A Guide to Understanding, Interpreting, and Using the Public Land Survey Field Notes in Illinois* by Max Hutchison. Published in ***The Natural Areas Journal***, Volume 8 (4), 1988, pp 245-255.
- *A Pre-European Settlement Vegetation Database for Wisconsin* by Theodore A. Sickley, David J. Mladenoff, Volker C. Radeloff, and Kristen L. Manies. Available on the ***Environmental Systems Research Institute*** website. <www.esri.com/library/userconf/proc00/professional/papers/PAP576/p576.htm>

Discover the Original Vegetation

From the information found in surveyors' notes and other early observations, mapmakers and ecologists have reconstructed information about the original vegetation of Wisconsin. You can find maps indicating the original plant communities and their distribution at:

- ***Wisconsin Department of Natural Resources*** <www.dnr.state.wi.us/org/at/et/geo/map_gal/landcov>

- ***Wisconsin Geological and Natural History Survey*** <www.uwex.edu/wgnhs>
- ***Wisconsin State Cartographer's Office*** <http://feature.geography.wisc.edu/sco>
- ***Great Lakes Ecological Assessment.*** This website has a tremendous amount of information, GIS maps, historical photos, and related links. <www.ncrs.fs.fed.us/gla/>

Investigate Existing Databases

You may find that your school forest or areas near your school forest have already been inventoried. There are at least two websites that can give you some basic information on the biodiversity of plants and animals in or near your school forest.

- ***Natural Heritage Inventory of the WDNR.*** The Department of Natural Resources maintains a working list of rare, endangered, and threatened species and natural communities. Species are listed by taxa and by county. <www.dnr.state.wi.us/org/land/er/nhi/nhi.htm>
- ***Association for Biodiversity Information*** <www.natureserve.org>

Complete a Title Search

Searching back through time to discover past owners and uses of a piece of property will reveal all kinds of information about the land and the community. You and your students will be able to connect the information from the title search with what you see on the site (e.g., foundations, roads, plantations, and much more).

Your search will probably start at the County Courthouse in the office of the Real Property Lister or the Register of Deeds. Most often the county clerk has charge of maintaining the records, and they are usually stored in the clerk's vault. Unfortunately, courthouse staffs are not always aware that they have records dating back very far.

If you are lucky, the records will be computerized, based on tax ID numbers. You will need your school forest's address and/or legal description to determine the tax ID number for the land. As you uncover relevant records, make copies for future reference. If you are copying from old documents, check to be sure everything copied clearly enough to be read.

Kindling

from Tri-County School Forest

When the school forest committee did a complete search of their deed, they discovered that Cyrus and Nettie McCormick owned their property way back in 1871. Forty years earlier, Cyrus had invented the mechanical grain reaper that revolutionized harvesting.

*Obtain a Variety of Site Maps

Plat Maps

Plat maps will show your school forest's property boundaries and indicate who owns the surrounding parcels of land. As you plan, it will be helpful to know how adjacent land is currently used, how it is zoned, and what type of development is possible. Contact the local zoning office in your community or county to find out zoning information. You can find plat maps by contacting:

- ***School Administration Office.*** The most obvious place to start is at your school district's main office. Ask if they have a boundary survey map, plat map, or tax map for the school forest.
- ***County and City Government Offices.*** Most local government offices can sell you a plat map for your area.

Topographic Maps

A topographic map shows the land contours and elevations on your school forest. It also shows waterways, glacial features, and much more. You can obtain topo maps from one or more of the following sources:

- ***Local Libraries and Government Offices.*** You might be able to photocopy a topographical map at your library or at local government offices (e.g., County Land Conservation Department or Natural Resources Conservation District offices).
- ***Wisconsin Geological and Natural History Survey.*** Contact: WGNHS, 3817 Mineral Point Road, Madison, WI 53705, (608) 263-7389, <www.uwex.edu/wgnhs>.
- ***topozone.com.*** Log onto this website for access to topographic maps from all over the United States. <www.topozone.com>

Aerial Photos

Aerial photos show roads, buildings, vegetation types, stream locations and general land uses. A series of aerial photos taken over many years reveals changes in land use in the area. You can probably obtain aerial photos from one or more of the following sources:

- ***County Land Use Planning Department.*** Contact the land information officer or Land Conservation Department for your county. Check the county government section of your local phonebook.
- ***Wisconsin Department of Natural Resources Forester.*** Your local WDNR forester will have access to reference copies of aerial photos of your school forest.

- ***Farm Service Agency.*** Purchase photos for your town, range, and section by calling the Farm Service Agency in your county. Look in the federal government section of your local phone book.
- ***Regional Planning Commission.*** Find out about the Regional Planning Commission for your county by visiting the State of Wisconsin Information Server website and searching for Regional Planning Commissions. <www.wisconsin.gov>
- ***Wisconsin's Statewide Aerial Photography Project.*** Purchase photos from all over the state using an order form available from the Wisconsin Department of Natural Resources, Bureau of Forestry, P.O. Box 7921, Madison, WI 53707, (608) 264-8990, <www.dnr.state.wi.us/org/land/forestry/airphoto>.

Wetland Inventory Maps

If you have a wetland on your land, the WDNR has probably inventoried it. Maps showing locations of wetlands are available from:

- City or county zoning office
- ***Bureau of Fisheries Management and Habitat Protection.*** Contact them at 101 S. Webster St., Madison, WI 53707, (608) 266-8852.

Watershed Maps

Locate your watershed on a state map and discover its water quality assessment at this *Surf Your Watershed* website.

- ***Environmental Protection Agency***
  <www.epa.gov/surf3/locate>

Groundwater Maps

Groundwater maps for Wisconsin are available from:

- ***Wisconsin State Cartographer's Office***
  <http://feature.geography.wisc.edu/sco>

Soil Survey Maps

County Soil Survey maps define the characteristics of the soil types found in each county of the state. Soil surveys provide the basic information needed to manage soil sustainably. They also provide information needed to protect water quality, wetlands, and wildlife habitat. To find the maps for your county, contact your local:

- ***County Land Conservation Department.*** Look in the county government section of your phone book.
- ***Natural Resources Conservation Service.*** Check your phone book under US Government, Department of Agriculture. They also have a lot of maps and other information on the web at <www.nrcs.usda.gov/NRCSProg.html#soilsurveyProg_Anchor>.

Bedrock Maps

Bedrock is the solid rock underlying the soil. Its composition helps to determine the properties of your soil. You can find bedrock maps of the state at:

- ***Wisconsin Geological and Natural History Survey.*** Contact: WGNHS, 3817 Mineral Point Road, Madison, WI 53705, (608) 263-7389, <www.uwex.edu/wgnhs>.

GIS Maps

A GIS (Geographic Information System) is a computer system capable of assembling, storing, manipulating, and displaying geographically referenced information. You can find GIS maps at county planning and zoning offices and all over the web. Here are a few places to start:

- ***Wisconsin Department of Natural Resources***
  <www.dnr.state.wi.us/org/at/et/geo>
- ***Environmental Systems Research Institute***
  <www.esri.com>
- ***Great Lakes Ecological Assessment***
  <www.ncrs.fs.fed.us/gla>
- ***Wisconsin State Cartographer's Office***
  <http://feature.geography.wisc.edu/sco>

Satellite Images

Imagine being able to see your school forest from space! You probably can by visiting these websites:

- ***terraserver.com***
  <www.terraserver.com>
- ***Environmental Protection Agency.*** This site has a satellite image of Wisconsin in addition to many other state maps.
  <www.epa.gov/ceisweb1/ceishome/atlas/stateatlas/wisconsin.html>

Gather Climate Information

Information about your local climate will be helpful in discussing vegetation present on the site. You can also use the information as a baseline in weather studies. You can find climate information by contacting:

- Local television stations
- ***National Weather Service.*** You can view climatology reports for selected Wisconsin cities at this website.
  <www.crh.noaa.gov/mkx/climate.htm>
- ***The Wisconsin Page***
  <www.uwsp.edu/geo/wisconsin>
- ***Wisconsin State Climatology Office***
  <www.aos.wisc.edu/~sco>

Collect History

You will want to gather as much historic information about your school forest as you can. This information can be used for onsite interpretation and to help make history lessons more relevant to your students. Here are some things you and your students can do:

- Visit historical societies – Start locally in your village, town, or county. Plan a real or virtual visit to the State Historical Society of Wisconsin in Madison.
- Ask a lot of questions – Interview long-time residents of the area. Record the interviews on video. Susan Gilchrist has excellent materials on collecting oral history. See page 111 in the Appendix for information on contacting her.
- Read local and state history books and browse through historical archives at the local library.
- Try an archeological dig – Enlist the help of a local archeologist to do an archeological survey of the land.
- Answer as many of these questions as possible – What Native American Indian tribes inhabited the land? Was the area logged? When? Were there logging camps, railroads, dams, or fires in the area? Was the land farmed? What crops? Have there ever been buildings on the land? When did the last person live on the school forest land?

Kindling

from Tri-County School Forest

Check out this project that freshmen in General Science tackle in a unit on environmental ethics. It helps them research, record, and preserve the history of their school forest.

Past Land Use of the Tri-County School Forest

Mission: Determine what the school forest was like in the 1930's and 1940's.

Students spend 4-5 hours "surveying" the school forest property, making an inventory of past land uses or evidence of uses. In particular, they look for fence lines, fence rows, barbed wire embedded in trees, rolls of wire, corner fence posts, high water marks, evidence of fire, evidence of soil erosion, concrete work, foundations, landscaping plants and old garden areas, outhouses, evidence of grazing by cattle or horses, remnants of farm implements, old dump areas, different habitat types, dominant tree species, plantations, even-aged stands, different-aged stands, shelterbelts, successional areas, adjacent property land uses, old signs and markers, boundary/property line markers, section corners, witness stakes, old buggy trails, footpaths, and travel lanes. As a group, they document this evidence and its location using a single-use camera and record the data on current maps.

After this survey/inventory, they collect oral history from elderly community members -"old timers" - who grew up in the area and know a great deal about the land. Students ask questions of these individuals and often survey part of the property with them.

After the photos are developed, students examine old plat books, old school forest records, deeds, and aerial photos. In combination with their photos, compiled notes, and oral history, they reconstruct what the school forest property was used for and what it looked like in the 1930's and 1940's. Student groups construct large floor maps, attach photos to respective areas, and write in notes from interviews and observations they have made. They make hypotheses about what crops were grown and where, what lands were pastured, and when pine plantations and shelterbelts were established. Then they make correlations of dates to federal, state, and local legislation and common "gentlemen's agreements" governing farmland (e.g., Soil Bank Act, local fencing practices).

Finally, students present their findings to their fellow classmates.

Inventory the Resource

You will need help with this one! Before you seek the advice of any specialists, do your homework. They will feel better about their commitment of time and you will reap more benefits if you have gathered as much of the following information as possible. Try to visit the site several times during the year to get a complete picture of the land. Visiting in each season will also help you find out about areas that flood in spring or trails that are too muddy to use.

You will want to involve students in extensive inventory activities. However, depending on your timeline, you may need a basic inventory to begin planning.

Record and Describe Your Forest Property

Structural Features

Note the location, type, and size of any of the following:

- Roads and trails – Are there logging roads, fire lanes, hiking trails, or snowmobile trails? Which are accessible year-round?
- Parking lots – Are they covered with grass, gravel, or pavement? How many cars or buses will they accommodate?
- Buildings – Are there restrooms, classrooms, cooking facilities, storage areas, or maintenance facilities? Are they winterized?
- Utilities and services– Is the school forest serviced by water, sewer, phone, gas, or waste collection? Where are the utilities located? Are they overhead or underground? Are cell phones available for use by teachers on field trips? Do they work at the school forest? Are there containers for garbage disposal and recycling? Is there a pick-up service?
- Outdoor facilities – Are there outdoor seating areas, picnic tables, or benches?
- Play equipment – Are there playground structures or ball fields?
- Fences – Are there fences around the land or gates over entrance roads? Is the area always "open"?

Cultural Features

Check the land for evidence of human uses. Make note of the following:

- Paths, campfire rings, or other signs of human use – What evidence do you see of current land use?
- Places of beauty – Are there any "WOW!" spots on the school forest that should be preserved because they are especially beautiful or inspirational?

- Archeological sites – Are there any indications that Native Americans used the area extensively?
- Old foundations – Can you tell if they are from houses, barns, silos, or sheds?
- Fencerows – Are the fences made of rock piles, wood, or wire?
- Garden plants – Do you see tulips, peonies, or other plants that would indicate someone had lived on the land?
- Dumpsite – Do you see solid waste in piles or littered on the land that would indicate a former dumpsite?
- Vandalism – Are there signs of past or current misuse of the land (e.g., graffiti, litter, damage to vegetation, or erosion caused by vehicles)?

Topographical Features

Describe the overall lay of the land by noting the following:

- General topography – Is the land flat, rolling, and/or steep?
- Elevation – Are there dry uplands and/or low wetlands?
- Slopes – Are slopes steep or gentle? What are the aspects (directions) of the slopes?
- Drainage – What direction does water flow on the site? Are there ditches, gullies, or streams?
- Elevation change – What is the difference in elevation between the highest and lowest points on the land?
- Safety concerns – Are there any dangerous places in the school forest such as very steep slopes, steep stream banks, or holes?

Geological Features

Explore the geology and soils of your school site by looking for the following:

- Bedrock – Is the bedrock exposed anywhere on the land?
- Fossil rock – Do you see limestone deposits where fossils might be found?
- Rock diversity – Collect sample rocks from the site. Is there enough diversity to make this a site for rock studies?
- Glacial evidence – Do you see evidence of glacial activity such as glacial landforms, glacial deposits, or boulders?
- Soil thickness – Use a soil auger to determine the presence and thickness of the topsoil, subsoil, and parent material in several locations.

- Soil type – Describe the texture, color, and composition of the soil. Determine the relative proportions of sand, silt, and clay. Determine the soil's organic components (i.e., roots, fungi, and fauna). Compare information in the County Soil Survey with what you find on the site.
- Soil chemistry – Collect soil samples from several locations to determine the pH and the chemical components of the soil. Send them for analysis or test with a standardized soil test kit. Professional analysis of your soil will give you valuable baseline information about the pH, organic matter, and mineral content of your soil. You can use this information to select plants suited to your soil. Later, you can compare students' soil testing results to this information. Contact: ***Soil and Plant Analysis Lab***, 5711 Mineral Point Road, Madison, WI 53705, (608) 262-4364, <http://uwlab.soils.wisc.edu>.

Water Features

Inventory the seen and unseen water resources at the school forest:

- Surface waters – Identify and map the location and size of rivers, streams, lakes, ponds, springs, swamps, marshes, and bogs.
- Year-round sources – Do onsite water resources contain water during all seasons or do they dry up during summer or drought conditions?
- Water quality – Test each water source for water quality (e.g., temperature, pH, dissolved oxygen, and biotic indicators).
- Accessibility – Is it safe to approach and investigate the wet places on the property or is there a need for boardwalks, decks, or bridges to provide access?
- Groundwater – Determine the depth and direction of flow using groundwater maps of the region. Are there any groundwater monitoring wells present on the site? Are there private or commercial wells that draw on the groundwater?
- Watershed – Determine the location of the school forest in the local watershed.

Kindling

from Pride Pond Nature Area

Becky Wegner takes 6th graders into one of their wild areas three times each year to record plant and animal species. Their seasonal visits are part of a longitudinal study currently in the fourth year. After their first visit, students get a chance to review the data that previous students collected on the same plot of land. Becky reports that their next step is to compile the information so they can compare years in a more scientific way.

Habitat Features

Investigate the presence and abundance of the following habitat features:

- Plant communities – Map the locations of woods, tree plantations, shelterbelts, wetlands, grasslands, prairie restorations, and cultivated fields. Ask for help from a forester or other resource specialists in identifying the plant communities and recognizing them on aerial photos.
- Edges – Indicate where communities meet to form transition zones and edges.
- Successional stages – Look for variety in the stages of succession of various plant communities. Could you study succession of plant communities at the school forest?
- Wildlife habitat features – Map the locations of den trees, snags, fallen logs, wildlife paths, trees that bear fruits or nuts, burrows, tree holes, nests, and travel corridors.
- Surrounding habitats – In addition to a careful mapping of the habitats at the school forest, map the surrounding habitat types and land uses. The surrounding land use can have a big impact on the types of wildlife you will see, especially if your plant communities are small or fragmented.

Plant Species

Collect information about the plants present on the site. To get a complete listing, you will need to inventory the site many times throughout the year. Look for:

- Native trees, shrubs, vines, wildflowers, grasses, aquatic plants, mosses, and ferns – Compile a listing. Ask for help from a forester or other resource specialists! Eventually you may want to collect samples and make a herbarium or other reference collection of plant species.
- Endangered species – Check your species list against the state's lists of endangered, threatened, protected, and watch species.
- Landscape plantings – Are there landscape or ornamental plants around buildings or in other areas?
- Invasive plants – Make note of the identification and locations of invasive plant species. For a complete list of state invasives, check out the WDNR-Bureau of Endangered Resources website. <www.dnr.state.wi.us/org/land/er/invasive/eislist.htm>
- Hazardous plants – Are there any plants such as poison ivy, poison sumac, wild parsnip, or stinging nettle that could cause problems? Are there any hazardous trees (i.e., trees in danger of losing large

branches or falling over) in areas where people will be walking or learning?

Animal Species

Compile species lists for all animals present on the site. Indicate if listings are confirmed sightings or signs left by animals. To get a complete listing, you will need to inventory the site many times throughout the year. Look for:

- Wild animals – Mammals, birds, reptiles, amphibians, fish, mollusks, insects, and other animals. Indicate on the list in which plant community each animal is found. Call in experts, like a wildlife manager, to help you know how, when, and where to look. Some animals live their whole lives in a small section of your forest; others may only pass through once a year. Your only record of some animals may be footprints, scat, or other clues they have left behind. Inventory at different seasons and different times of the day. For example, searching after leaf fall will reveal nests, snow will capture footprints, spring will bring migrations and frog calls, and a twilight visit will reveal crepuscular and nocturnal animals.
- Endangered species – Check your list against the state's lists of endangered, threatened, protected, and watch species.
- Feral animals – Look for signs that wild dogs or cats live on the property.
- Research projects – Look for possible wildlife research projects such as a breeding bird surveys or butterfly counts. You should also establish a collection policy and criteria for specimen identification.

Other Living Things

Search for other living things that are not in the plant or animal kingdoms. Look for:

- Algae, fungi, molds, lichens, mushrooms and other things that are strange, yet wonderful! See the list on the next page.

Kindling

Why not hold a bioblitz at your school forest? A bioblitz is an educational event that can include students and the community! Scientists from museums, universities, and government agencies work with citizen scientists to identify as many forms of life as possible in a set amount of time. For more information log on to these websites:

Smithsonian Magazine
<www.smithsonianmag.si.edu/smithsonian/issues00/apr00/interest_apr00.html>

University of Connecticut Advance
<www.advance.uconn.edu/06219906.htm>

Check Out Biodiversity

Use this list to check out the diversity of life at your school forest. How many different species (kinds) of trees, insects, birds, and other living things can you find and identify?

Plants

Liverworts

Mosses

Ferns

Horsetails

Club Mosses & Spike Mosses

Ginkgoes

Coniferous Trees (Pines, Spruces, Firs, Hemlocks, Cedars, etc.)

Deciduous Trees (look for differences in the leaves to separate species)

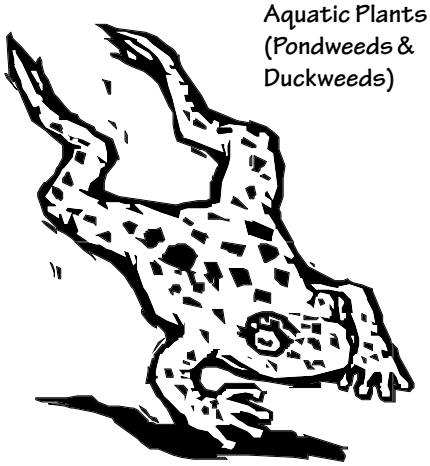
Shrubs (look for leaf variations)

Vines

Wildflowers (count the number of petals or compare leaves to separate the species)

Grasses & Sedges

Aquatic Plants (Pondweeds & Duckweeds)



Animals

Sponges

Hydras

Flatworms

Nematodes

Rotifers

Moss Animals

Earthworms & Leeches

Snails & Slugs

Mussels & Clams

Crustaceans (Fairy Shrimps, Crayfishes, Sowbugs, & Water Fleas)

Arachnids (Scorpions, Daddy Longlegs, Ticks, & Spiders)

Centipedes

Millipedes

Insects (Grasshoppers, Dragonflies, Bugs, Beetles, Butterflies, & many, many more)

Fishes (Trout, Bass, Chub, Lampreys, etc)

Amphibians (Salamanders, Frogs, & Toads)

Reptiles (Turtles, Lizards, & Snakes)

Birds (Birds of Prey, Songbirds, Waterfowl, Shore Birds, Game Birds, Woodpeckers, etc.)

Mammals (Carnivores, Rodents, Bats, Deer, Weasels, etc.)

Others

Bacteria

Blue-green Algae

Euglenoids

Parameciums

Amoebas

Green Algae

Brown Algae

Yellow-green Algae

Golden-brown Algae

Diatoms

Dinoflagellates

Red Algae

Stoneworts

Slime Molds

Algal Fungi

Yeasts

Molds

Mildews

Morels

Lichens

Bracket Fungi

Puffballs

Mushrooms

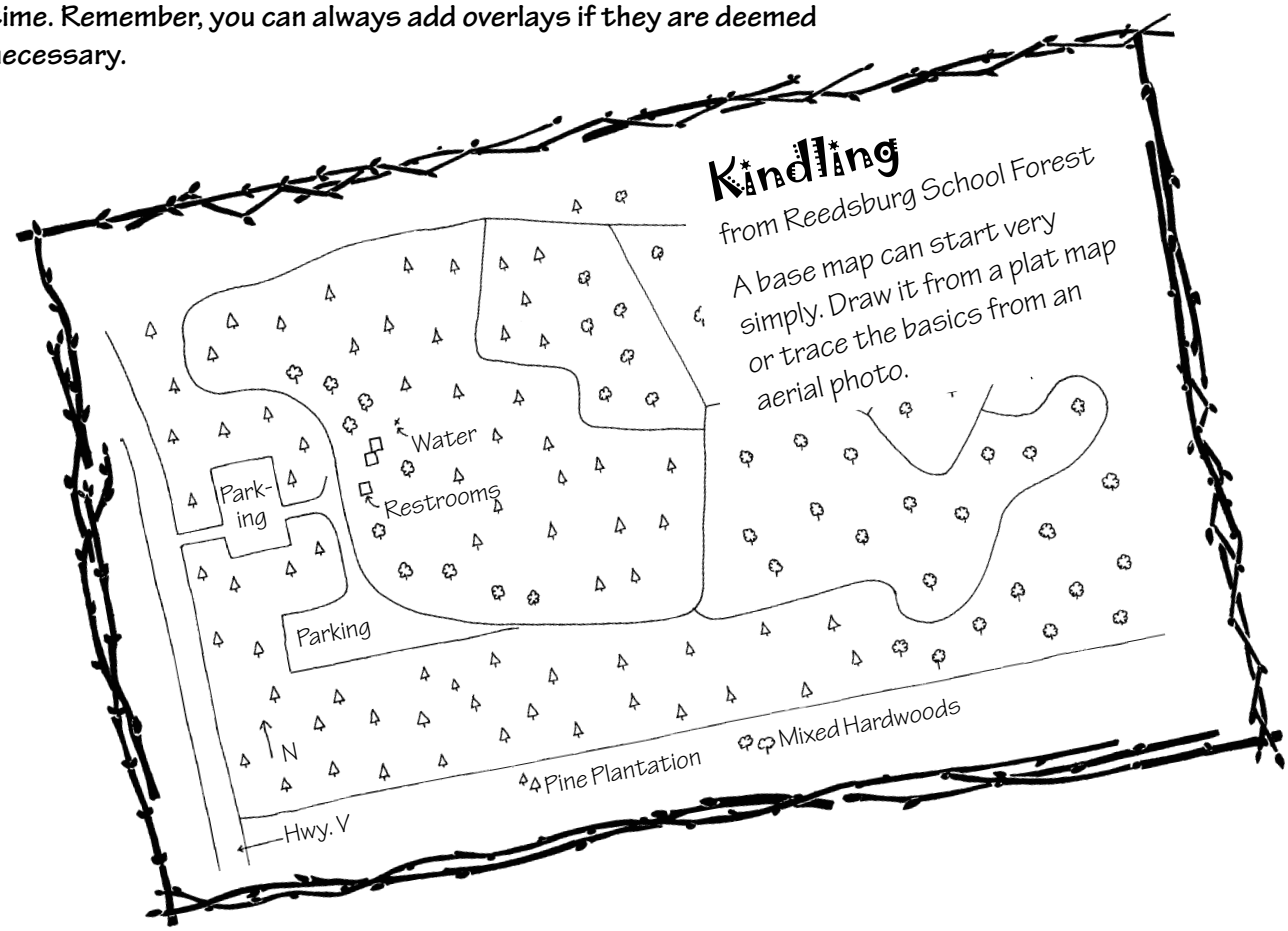
Note: This list includes most of the groups of living things that can be found in North America. Wow! Just the list alone reminds us of all the living things that share this planet with us. You won't find representatives of each group in the area you inventory. (You can't even see some of these living things without a microscope!) Just use the list to remind you of the categories of living things you might find. Good luck!

Create a Base Map

All students can benefit from being involved in mapping activities at the school forest. However, to obtain high quality maps for use in presentations and during planning sessions, you will want to involve high school technology/computer students. With the right software and guidance, they should be able to produce professional-quality maps of your school forest.

Using a boundary survey map or aerial photo, prepare a large-scale base map. On the base map, indicate permanent features and structures such as streams, roads, and buildings that will probably not change. The base map should also indicate the types of land uses and habitat features on adjacent properties.

Create separate overlays to indicate topography, water resources, soils, or other features that will be helpful during the master planning process. Also, create overlays to show the locations of plant communities, wildlife signs, and other features that might change as a result of management or time. Remember, you can always add overlays if they are deemed necessary.



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Investigate Educational Needs and Resources

Assessing the educational needs and resources of your school district is just as important as inventorying the school forest itself. You need to find out how the forest is being used and how students and staff view the land. This information will help to guide your future planning.

Obtain District Information

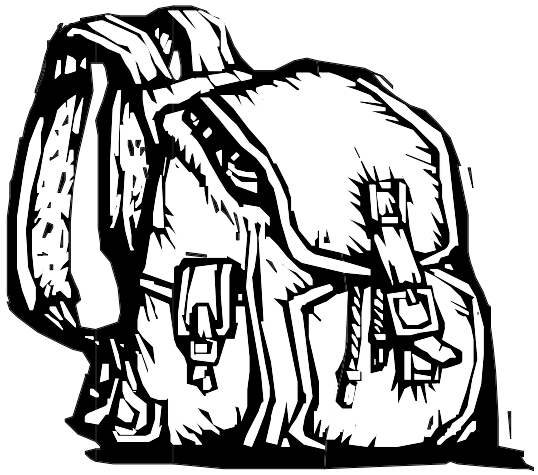
Find out the total number of students and teachers who could *potentially* use the site. List students and teachers by grade level or discipline.

Study District Standards

Review district and/or state academic standards. Take a critical look at the scope and sequence of instruction at each grade level. Look for concepts and standards that could be addressed at the school forest. Indicate areas of current or potential curriculum development.

Inventory Equipment

Get a handle on the types of environmental education equipment that exist in your district. Use the next two pages of the handbook to help you complete this inventory.



Inventory Equipment

Take inventory of the equipment that is available for use at the school forest. This list will also help you to create your wish list later in the planning process.

General

_____ maps of school forest
_____ user's guide/teacher's guide
_____ clipboards or drawing boards
_____ paper
_____ pencils
_____ pens
_____ markers
_____ crayons
_____ masking tape
_____ glue
_____ scissors
_____ paper bags
_____ zip lock bags
_____ plastic containers
_____ plastic bottles

Safety

_____ first aid kits
_____ disposable examining gloves
_____ weather radio
_____ flashlights and extra batteries
_____ candles and matches
_____ blankets
_____ cell phones

Recording

_____ digital camera
_____ video camera
_____ 35mm camera
_____ tape recorder

Basic Exploring

_____ magnifying lenses
_____ bug boxes
_____ insect nets
_____ stereomicroscopes
_____ pails and other containers for all sorts of uses
_____ funnels
_____ ice cube trays for sorting specimens

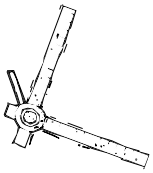
_____ garden hand tools
_____ 100' measuring tapes
_____ stopwatches
_____ ID books and field guides

Forestry Measurement

_____ tree cookies
_____ wood samples
_____ board foot samples
_____ Biltmore sticks
_____ prisms
_____ diameter tapes
_____ increment borers
_____ angle gauges
_____ clinometers
_____ tree keys
_____ rulers

Timber Management

_____ tree marking gun
_____ flagging tape
_____ pole saws
_____ bow saws
_____ pruners
_____ loppers
_____ chain saws



Fire Management

_____ fire rakes
_____ fire swatters
_____ shovels
_____ pulaskies
_____ backpack water cans
_____ drip torch
_____ nomex protective clothing
_____ small water tank mounted on ATV

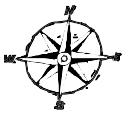
Plant Studies

_____ plant presses
_____ herbarium specimens
_____ plant keys

Aquatic Studies

_____ pond nets
_____ kick nets
_____ minnow traps
_____ pails and dishpans
_____ plastic cups and tubs
_____ lab pans
_____ petri dishes
_____ spoons
_____ forceps
_____ microscopes
_____ bioscopes
_____ biotic index charts
_____ water quality test kits
_____ pH paper / pH test kits
_____ Secchi disks
_____ waders
_____ groundwater models

Wildlife Management



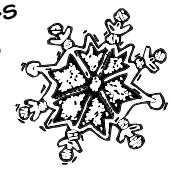
_____ binoculars
_____ spotting scopes
_____ echolocators
_____ radio telemetry equipment
_____ skulls
_____ study skins
_____ mounted specimens
_____ animal tracks and molds
_____ plaster of Paris
_____ nests and hives
_____ artificial nest boxes
_____ dissection kits
_____ small mammal box traps
_____ mist nets

Geology/Soil Studies

_____ soil samples
_____ soil test kits
_____ soil sieves
_____ soil thermometers
_____ soil color charts
_____ trowels
_____ chisels
_____ rock hammers
_____ safety goggles
_____ reference specimens

Weather Studies

_____ weather station
_____ thermometers
_____ heat index charts
_____ sling psychrometers
_____ rain gauges
_____ cloud charts
_____ wind scale charts
_____ wind chill charts
_____ barometers
_____ anemometers
_____ light meters
_____ air quality testers (CO_2, SO_2, NO_x, ozone, radon)



Recreation

_____ raincoats/ponchos
_____ skis
_____ snowshoes
_____ compasses
_____ topo maps
_____ archery equipment
_____ fishing rods and reels

Construction

(List on a separate page.)

_____ hand tools
_____ power tools

Books

(List on a separate page.)

_____ curriculum guides
_____ reference books
_____ field guides
_____ children's literature

Multi-media Resources

(List on a separate page.)

_____ slide sets
_____ videos
_____ CD ROM programs
_____ teaching kits

Survey Administrators, Faculty, and Staff

Send a survey to every person on staff from the school board superintendent to the nighttime custodian. Here are some potential questions:

- Did you know that our school district has a school forest?
- Have you ever been there?
- Have you taken or accompanied students to the school forest? How often? What grade level were the students?
- What did you do there? List the types of activities you did while at the forest. What were your curriculum goals associated with these activities?
- Are the existing procedures for reserving the school forest clear? Do you know how to contact the coordinator? Are the procedures easy and fair?
- Are the rules for use by schools and the community clear? Do you think they are appropriate or should they be revised? Explain.
- If you have never used the school forest, indicate why. Can you offer any solutions to the obstacles?
- What resources have you used at the forest that you could make available to other teachers? Please list all possible resources including things like magnifying lenses, water test kits, forestry measurement tools, clipboards, insect nets, compasses, and soil test kits.
- Do you have environmental education curriculum or activity guides that would be useful to the school forest committee as they plan curriculum for use at the forest?
- What changes or improvements would make the school forest a better educational resource?

Kindling

from Lakeland Union High School Forest

The school forest coordinator, Andrea Billings, and her school forest committee surveyed students and staff at Lakeland Union as part of their planning process. Here are their surveys!

Student Survey

1. Did you know that LUHS has a school forest?
   ___yes ___no
2. Have you ever used the school forest?
   ___yes ___no
3. Would classroom activities in the out-of-doors make learning more fun, interesting, memorable, or applicable?
   ___yes ___no
4. Which of **your** classes do you think could use the school forest?

5. How do you think the school forest could or should be used to enhance and supplement your education? (Examples: ropes course, reflective writing, and mathematical and scientific population studies)

6. Would you be willing to participate in any of the following activities?

   ___yes ___no clean up trails

   ___yes ___no pick up litter

   ___yes ___no build benches

   ___yes ___no build bridges

   ___yes ___no make signs

   ___yes ___no build bog walks

   ___yes ___no mark boundaries (dig in posts, put up markers)

   ___yes ___no teach others using the school forest (life skills or about the environment)

   ___yes ___no serve on this committee

   (Please give your name_____)

Administration, Faculty, & Staff Survey

1. Have you ever used the school forest?___yes ___no

   If yes, how?

2. Are you currently using or do you intend to use the school forest this school year? ___yes ___no

3. Did you ever consider using the school forest, but encounter problems that prevented your use of the property?___yes ___no

   If yes, what was the plan and what were the problems that prevented the implementation of the plan?

4. How might the school forest be used to enhance your classroom instruction or other school-related activities?

5. The following is a list of potential improvements to the school forest. Check all of the improvements that will result in your using the school forest.

   ___Improve existing trails (remove obstacles and make handicap accessible)

   ___Develop new trails

   ___Build and repair stream crossings

   ___Build pond access

   ___Build bog boardwalk

   ___Prepare topographic map of school forest site (and directions to get there)

   ___Improve parking lot

   ___Build restrooms

   ___Develop a challenge course

   ___Develop a ski trail

   ___Develop a fitness course

   ___Pursue timber sales and harvesting practices

   ___Other – Please list _____

6. List any additional improvements that would result in your using the school forest. Indicate how you would use the school forest.

7. Are you interested in serving on an advisory committee for the school forest and the school grounds as outdoor classrooms? ___yes ___no

Assess Current Community Uses

It will be important to recognize all the ways the school forest land is being used. Enhancements that you make to the property should not eliminate current positive uses. On the other hand, you may want to make some very conscious changes to eliminate or discourage undesirable activity on the land.

There are many ways to obtain this information. The most effective and efficient way will depend on your community, location, and other unique factors. You might:

- Send a survey to all organizations in your community asking them to indicate ways in which they or their members use the school forest. Check out the list of potential partners on pages 22 - 24 of this handbook for ideas on who to include in this survey.
- Interview individuals at a community-wide event.
- Interview individuals who are actually at the school forest.
- Conduct a random telephone survey.
- Solicit comments through the district's newsletter.

Here are some examples of questions you may want to ask:

- What other users/groups are currently using the site? How?
- How is the school forest being used for recreation? For example, are people skiing, snowmobiling, hiking, or bird watching?
- How is the community benefiting from the forest as a resource? For example, are people harvesting firewood, game, fish, maple sap, mushrooms, or other wild edibles?
- Are there any concerns about the school forest from the perspective of people in the community? For example, are there signs of vandalism, parties, or fires?

Take Some Field Trips

Part of your information gathering process should include visiting other school forests and networking with school forest coordinators. Choose school forest situations that are similar to yours in acreage of land, size of school district, or level of staffing. A list of registered school forests is included on page 99 of the Appendix. Use it to find nearby schools.

Representatives of your school forest committee should also consider attending workshops and conference sessions focusing on school forests. Trees For Tomorrow, Nicolet College, and Treehaven offer school forest planning workshops. These workshops offer great ways for you find out what is being done and *can* be done around the state.

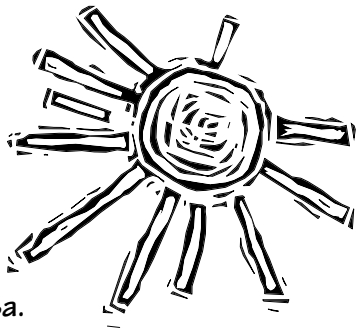
How to Grow a School Forest © 2001 WFREA & WEED

Begin the Master Planning Process

Your school forest might be used solely for educational purposes. Or possibly your school district relies on timber production from the school forest to fund ongoing needs. In most cases, school forests need to meet a variety of demands: environmental education, timber production, community recreation, wildlife habitat, scenic attraction, watershed protection, and other social, ecological, and economic needs.

How will you decide the best plan for the land? How will you balance all these demands on just a few acres? Start by looking at three areas of planning: education programs, natural resource management, and facility development.

Divide your committee into working groups to address each of these areas. Stay in touch with each other. Ideas from one group will encourage and guide the plans of another. Keep the school board and school administrators informed of your progress. The goal is to come up with a comprehensive and compatible master plan that will fully utilize your school forest.



Consider Educational Programming

This is a *school* forest – your school forest education program should dictate the management and development of your forest, not vice versa. Some committees make the mistake of concentrating primarily on the physical parts of the forest, but it is the programming that will make a difference in the lives and learning of your students!

Activities planned for the school forest should:

- Connect directly to academic standards in the district and the state.
- Follow a logical scope and sequence tied to curriculum goals.
- Enhance current curriculum.
- Allow students to participate in real-life situations.
- Get students outside doing things they can't do in the classroom.

This working group should answer the following questions:

- How will students get to the school forest? Given the current budget, length of class periods, distance to the forest, and other local factors, what will we need to do to ensure that students can access the forest?

- Other than those related to transportation and time, what other challenges do we face in achieving a high level of use? For example, will we need to offer teacher inservices or other resources to help teachers feel comfortable teaching in the forest?
- What type of programs will be conducted at the school forest? We *could* allow each teacher to use the forest independently, but will the program be stronger, easier to fund, and much more effective if we develop a school forest curriculum that identifies how the land will be used in each grade and discipline?
- If a curriculum guide exists, are teachers using it to plan their visits? Does it meet current academic standards?
- How will the education program and the management of natural resources at the school forest complement each other? Think about how management of the school forest could enhance the experiences of students.
- How will the education program and the development of facilities complement each other? Think about the kinds of facilities that could enhance the experiences of students.
- What types of teaching equipment, training, or resources do we need to implement the curriculum?

Brainstorm the Possibilities

Dream on! From what you currently know about your school forest, think of all the curriculum connections you *could* make! The following list is not meant to limit you, but to inspire you and challenge you to connect the outdoor classroom to your school's educational plan.

Environmental Education

- conduct independent research
- monitor environmental quality
- improve wildlife habitat
- investigate local watersheds
- monitor change in ecosystems over time
- compost all appropriate wastes from picnic lunches or food service
- investigate human impacts on native communities
- investigate local environmental issues
- work with professionals in the field

Earth and Space Science

- view celestial objects
- identify constellations
- conduct geological studies
- observe glacial formations
- collect fossils
- study soil characteristics
- analyze soil samples
- witness the water cycle at work
- study and control erosion
- observe soil formation
- analyze weather patterns
- record climate trends
- construct a weather station
- investigate microclimates
- explore water resources in the form of ponds, wetlands, creeks

Life Science

- identify trees, shrubs, and wildflowers
- evaluate wildlife habitat
- observe wildlife and wildlife signs
- compare natural communities
- investigate forest ecology
- conduct deer browse studies
- experiment with wild edibles
- identify poisonous and hazardous plants
- investigate microhabitats
- follow and interpret tracks and other animal signs
- experience the woods at night
- collect insects
- research plant succession
- correlate plant communities with animal presence
- analyze forest, meadow, or wetland food webs
- collect, identify, and press plants
- develop a list of threatened and endangered species
- count the plants and animals in a small plot of land
- investigate ponds, wetlands, streams

Forestry / Agricultural Education

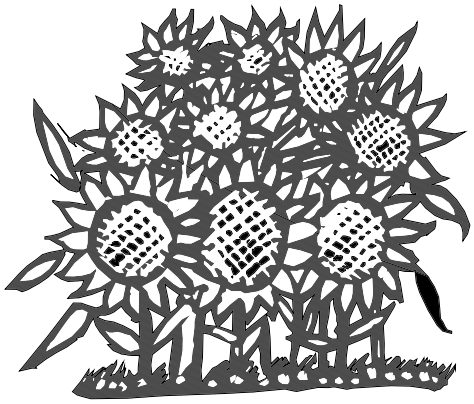
- plant trees
- participate in management decisions
- inventory trees
- conduct timber surveys
- manage timber stands
- prune and thin timber stands
- scale logs
- conduct forest health surveys
- monitor insect pests such as the gypsy moth
- prepare for selective harvesting and/or clearcutting
- restore or establish native plant communities
- measure trees to search for champion trees

Social Studies

- cultivate farm crops and vegetables so students can connect their food to the earth
- reenact historical events
- determine human uses of plants for art, medicine, food, etc.
- conduct an archeological dig
- engage in local government processes
- identify historical uses of the school forest land
- work cooperatively with others to accomplish school forest goals
- investigate the economics of timber sales
- write an historical trail for the forest
- create a wildlife viewing guide

Math

- survey forest land
- map the forest
- interpret data
- manage a budget
- evaluate population studies
- master use of compass and topographic map
- calculate species frequency
- graph the growth of vegetation



English Language Arts

- write the master plan
- deliver oral presentations to organizations
- keep a nature journal
- write newspaper articles
- communicate with organizations and individuals
- produce a school forest newsletter
- write trail guides
- share personal reflections about experiences in the forest with others through discussions and writings

Visual Arts

- study the work of wildlife artists
- experiment with different media in the field
- sketch, paint, or draw scenes, plants, or animals
- use native plants to make dyes and paints
- create field guides for the school forest
- develop photography skills
- develop site maps
- illustrate signs, trail guides, and other educational publications
- illustrate newsletters

Music

- schedule concerts at the school forest
- conduct practice sessions in the outdoors
- listen to music inspired by nature
- learn how to tape animal sounds
- incorporate natural sounds into original compositions
- create musical instruments from natural objects

Health and Physical Education

- practice survival skills
- experience a challenge course
- compete in cross-country events
- learn new outdoor skills (e.g., camping, canoeing, hunting, ice-fishing, archery, and others)
- build and maintain trails for recreational and educational use

Special Students

- offer alternatives for at-risk, gifted, and special education students

Career and Technical Education

- practice skills learned in the classroom
- construct a shelter, bridge, or other structure at the forest
- develop safety awareness with hand and power tools

Computer Technology

- create maps for planning and archival purposes
- maintain databases
- develop and maintain a website for the school forest
- produce brochures, publicity materials, and other documents

Plan!

Gather together the academic standards for your district or the state, the scope and sequence charts for various disciplines at relevant grade levels, your current school forest curriculum, and your dreams for what you can do. Now you should have enough information to begin your planning process. Start plugging in concepts and activities at each grade level that can make use of the school forest. Look for overlap between what you dream you can do and what you need to do.

Since every situation is unique, you will probably just have to find what works for you and go for it. Take advantage of curriculum specialists in your district and environmental education specialists from the Department of Natural Resources, University of Wisconsin – Extension, and nearby nature and environmental education centers.

You may want to think in terms of a long-range plan which will be phased in over a number of years. If you are creating new activities, you may need to allow considerable development time. (Note about new activities: You really shouldn't need to develop much from scratch. There are so many excellent resources to choose from. Check out pages 132 - 134 in the Appendix for a listing of some of the best in environmental education and outdoor education curriculum and activity guides. You can also draw on work done by other school districts. Contact school forest coordinators in similar situations and request copies of their school forest curricula. You will probably just need to adapt existing activities to meet your specific needs.)

As you and your fellow teachers develop, review, and refine your curriculum plans, don't forget to ask teachers who are not on the committee for input. The final product needs to be a user-friendly document that meets the needs of the staff in your school district.

Kindling

from Boston School Forest in Stevens Point

As part of their curriculum plan, the committee members have established grade level content emphases. This allows them to see at a glance that there is a good balance of topics across the school forest curriculum. It also allows them to ensure that students get to visit the school forest in all of the seasons during their elementary school years.

Grade Level Emphasis

Kindergarten and Early Childhood (February, April, May)

- Introduction to the School Forest
- Awareness of Environment
- Animal Homes

First Grade (April, May)

- Signs of Spring
- Five Senses
- Camouflage
- Trees are Terrific

Second Grade (December, January)

- Winter Hike – Animal Signs
- Animal Adaptations

Third Grade (September, October)

- Food Chains, Food Webs
- Pond Study
- Team Building

Fourth Grade (January, February)

- Winter Recreation
  (cross-country skiing, snowshoeing)
- Animal Tracking

Fifth Grade (October, November)

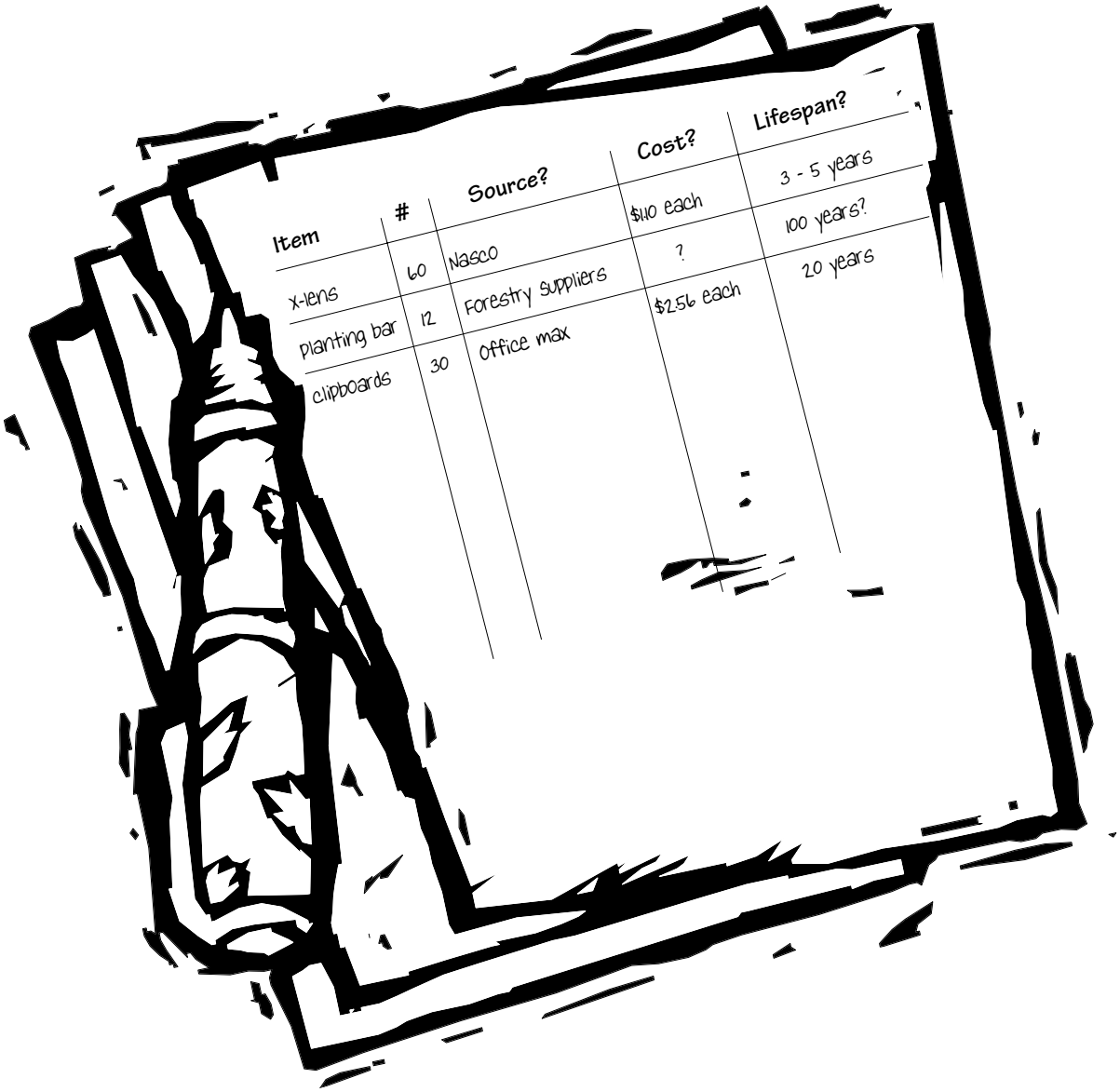
- Team Building
- Problem Solving (low ropes)
- Compass and Orienteering

Sixth Grade (March, April)

- Outdoor Skills, Survival
- Team Building, Problem Solving
- Low Ropes, High Ropes

Make a Wish List

Look back over your school forest curriculum. Identify the teaching equipment and resources that you will need to conduct your program at this point. Check this list with your inventory of existing equipment on pages 54 - 55 to compile a school forest wish list. Indicate possible sources, approximate costs, and predict expected lifespan for each item. This list will help you take advantage of grant opportunities when they arrive. It will also help you to refuse donations of unneeded or unwanted materials, as in, "I'm sorry, but three stuffed African lions are not on our list of needed materials at this time."



Item	#	Source?	Cost?	Lifespan?
x-lens	60	Nasco	$140 each	3 - 5 years
planting bar	12	Forestry suppliers	?	100 years?
clipboards	30	Office max	$2.56 each	20 years

Define Sustainable Forestry

Wisconsin's forests cover 46% of the state. That's 16 million acres of forests! With all those trees, forests should be able to meet everyone's needs, right?

Well, it's not that simple. We demand a lot from our forests. We expect our forests to be beautiful places to relax and enjoy the great outdoors. At the same time, we want forested lands to remain wild—undisturbed and able to support diverse species of wildlife. On top of that, we demand that forests produce wood, paper, and other products for our use. That's asking quite a bit—even from 16 million acres!

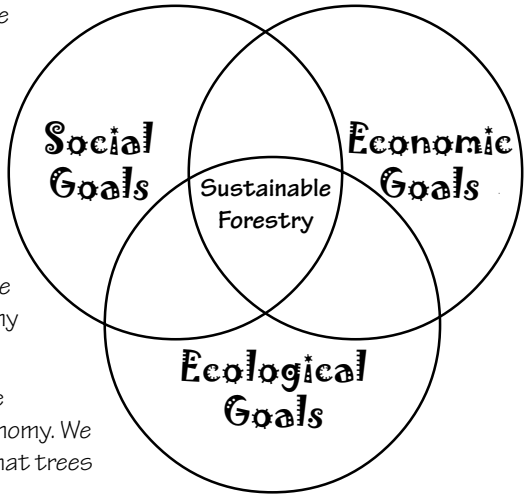
Today, we realize more than ever that forest resources are limited. With the growing population and increasing demands, the resiliency and productivity of forests will be put to the test. It's time to plan for the future!

Sustainable forestry is a goal that many foresters and owners of forested lands are striving to attain. It reaches beyond the traditional focused goal of timber production. Sustainable forestry tries to balance the economic, ecological, and social goals of today with the needs of the generations to come.

Ecological Goals: Forests are an important part of Wisconsin's environment. They provide habitats for plants and wildlife and help keep our air and water clean.

Social Goals: Forests are great places for people to have fun and relax. They give us many social benefits.

Economic Goals: Forests are important to Wisconsin's economy. We need the products and jobs that trees provide.



Today's forest managers and resource professionals try to manage forests to meet ecological, economic, and social goals both today and in the future. That's what sustainable forestry is all about—planning to ensure that there will always be diverse and productive forests. It means making choices. The choices aren't always easy ones, but through sustainable forestry, we can enjoy **all** the benefits of forests.

Adapted from "Picture the Forest" in ***Wisconsin Forests Forever Teachers' Guide*** produced by Wisconsin Forest Resources Education Alliance. ©2000 WFREA.

Consider Sustainable Natural Resource Management

Whether you have forested lands or prairies or wetlands, you will need to make a comprehensive management plan for the land. Working with resource specialists, your goal should be to create a plan that is sustainable.

Connect with Professional Help

The WDNR forester in your county (see pages 107 - 110 in the Appendix) can help you with direct onsite planning, harvesting, reforestation, pest control, and other forestry assistance. You can also ask for assistance from other government agencies, forest industry specialists, and private foresters. The following agencies and institutions have professional foresters, wildlife managers, water resource specialists, and numerous other qualified staff:

- Wisconsin Department of Natural Resources
- University of Wisconsin – Extension
- USDA Forest Service
- USDA Natural Resources Conservation Service
- Bureau of Indian Affairs
- County Parks and Forests
- County Land Conservation Departments
- Industrial foresters (e.g., Lake States Lumber Association, Lake States Resource Alliance, Stora-Enso North America [formerly known as Consolidated Papers], Louisiana-Pacific, Georgia-Pacific, Weyerhauser, Packaging Corporation of America [PCA], and International Paper)
- Private consulting foresters (e.g., Society of American Foresters)
- College, university, or technical school staff
- Nature centers and other non-formal educational facilities (e.g., Trees For Tomorrow and Treehaven)

The working group focusing on natural resource management should answer the following questions:

- After considering the data collected during the inventory process, divide the land into sections based on unique plant communities. What is the composition of each parcel of land?
- What are the management needs of each land parcel? Do we need to harvest, thin, plant, or remove invasive plants?

- What options do we have for improving wildlife habitat, water quality, or educational value of the land?
- How will resource management decisions impact the education programs at the school forest? Ask the curriculum committee how different management scenarios might enhance or limit onsite programming.
- How will resource management decisions impact the development of facilities at the school forest? Think about where facility development should and should not take place from the standpoint of resource management.

Brainstorm the Possibilities

Included in this list are many options that will enhance the educational value of the land and improve wildlife habitat. While they are probably considered part of the management plan, work closely with the education committee to determine which are most valuable to the educational use of the site.

Timber Management

- Harvesting timber through selective cutting
- Clearcutting of aspen, jack pine, red pine, etc.
- Regenerating oaks through shelterwood cutting
- Improving the forest through thinning, pruning, culling, or weeding
- Planting trees for future harvests
- Controlling insects and diseases
- Conducting a prescribed burn to control invasive species or manage forest debris
- Controlling the spread of invasive species through other methods
- Creating fire breaks
- Establishing a nursery

Grassland Management

- Introducing or restoring native prairie plantings
- Setting aside an area for natural plant succession
- Burning, mowing, or applying herbicides to maintain existing grassland communities

Wetlands/Water Management

- Protecting water quality
- Introducing aquatic habitat in the form of a pond or wetland
- Cleaning up litter from stream banks
- Revegetating a damaged waterway
- Enhancing existing water resources with native aquatic plants
- Improving fish habitat
- Controlling erosion along streambanks, trails, and roads
- Controlling the spread of invasive species

Wildlife Management

- **Planting trees and shrubs to add diversity or improve wildlife habitat**
- **Creating wildlife habitat for an individual species or a group of species – including non-game, game, and endangered species**
- **Constructing wildlife openings**
- **Planting wildlife food plots**
- **Building brush piles and rock piles**
- **Putting up exclosures**
- **Constructing nesting boxes and feeders for specific wild animals**
- **Planting windbreaks, fencerows, or shelterbelts**
- **Leaving dead trees (both standing snags and downed logs), den trees, and wolf trees for wildlife habitat**
- **Creating artificial hibernacula for reptiles and amphibians**
- **Managing grassland areas for grassland birds**

Kindling

from Grand Rapids High School in Minnesota

Students at this school forest decided to set an example for the community. They assisted in the harvest of timber for the building of a Habitat for Humanity home. For more information, check into the National Society of American Foresters' project called ***Forests for Humanity***.

Your school could also participate in the ***Log a Load for Kids*** program. Sponsored by the Timber Producers Association of Michigan and Wisconsin, this program benefits the Children's Miracle Network (CMN). The CMN is a nonprofit organization committed to helping sick and injured children of all ages, regardless of their affliction or ability to pay. Loggers all over the country can donate the value of one load of "logs," or any amount they can, to help make hospital stays easier for sick or injured children. What a great way to show how school forests can benefit the community!

Kindling

from Tri-County School Forest

Over the past 10 years, students have built over 2000 wildlife houses (i.e., bat houses and nest boxes for bluebirds, kestrels, and wood ducks). But the students don't just **build** the houses! They selectively mark the trees. They watch as a portable sawmill operator cuts the logs. Students scale the logs and determine board feet. The wood is dried. Then students in career training classes use the wood to build houses. Students place some of the houses and monitor them throughout the summer. They give others to individuals who will place them in appropriate habitats and monitor them. They collect and compile data and send it to the Bluebird Restoration Association of Wisconsin for inclusion in a statewide database.

Plan!

With the help of foresters and other resource professionals, begin to plan for the management of your school forest's natural resources.

Composition of Plant Communities

Together you can organize and make sense of the inventory information you have gathered. In addition to species lists, refer to site conditions, soil types, sunlight, and climate factors. Determine the composition of each unique plant community. For forested areas, the foresters will help you define a stand of trees in terms of species, age, and density of trees.

Management Recommendations

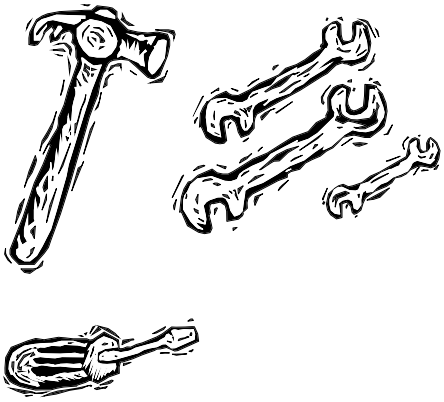
Make recommendations for each plant community. Resource specialists will help you know if a prairie/grassland area needs a prescribed burn, extensive removal of invasive plants, or supplemental plantings. Forested areas may require thinning, harvesting, or replanting. Produce species lists that will guide the trees, shrubs, and wildflowers that will be planted on the school forest. These forest management decisions and practices are excellent opportunities for student learning and involvement.

Each situation is unique. We have included sample management plans on pages 89 - 92 in the Appendix. They will give you an idea of how plans might look and what information they might include. Your county forester will probably have other sample plans from your area of the state.

Consider Maintenance

Care should be taken not to plan or implement more than can be maintained. Always compare maintenance costs to the budget, staff, and other resources available when developing the management plan.

For each part of the management plan, list what will need to done, how it will be accomplished, and who will need to do it. It might be helpful to make a schedule listing monthly, seasonal, and annual maintenance tasks.



Consider Facility Development

The facilities present at a school forest will limit or enhance the educational uses of the land. Dream big. What types of facilities are possible at your forest? During the brainstorming process, ask yourselves – if we want this type of programming, what kind of facilities do we need?

This working group should answer the following questions:

- After considering the data collected during the inventory process, what are the strengths and weaknesses of the current facilities?
- What are the maintenance needs of current facilities? Are there any structures beyond repair? Any that are hazards? Are there any historical features that we should preserve?
- How can we make this forest accessible to all people? What legal obligations (e.g., ADA) for accessibility do we have? Remember, if you remodel or add to a building, the whole building must meet current codes.
- Does the school's insurance cover teachers, students, and volunteers working on the school forest grounds?
- What permits will we need to put up structures near waterways, wetlands, or lakes?
- How will site development decisions impact the education programs at the school forest? Ask the curriculum committee what kinds of facilities could enhance the experiences of students at the school forest.
- How will site development decisions impact the resource management plan of the school forest? Talk with the resource management committee about where development should take place.

Brainstorm the Possibilities

The following list is provided to inspire you and generate new ideas for your forest. You will notice some duplication with the resource management list. They are listed twice because they involve a "facility" or development that will need to be maintained.

Site Access

- entrance road –gated or not gated?
- parking lot – large enough to accommodate buses?

Site Amenities

- outdoor classroom – open shelter or year-round building?
- restrooms – flush toilets or portable toilets?
- drinking water – indoors and/or outdoors?

- overnight lodging
- office space
- equipment storage
- museum
- greenhouse
- cooking facilities – indoors and/or outdoors?
- fireplace
- campfire ring
- amphitheater – indoors and/or outdoors?
- outdoor art sculptures
- benches
- picnic areas
- observation towers
- camping areas for scouts and students
- sledding/snowboarding hill
- dam for creating a wetland/pond

Trails

- accessible trails
- nature trails with markers/ signs/booklets
- hiking trails
- cross-country ski/run trails
- mountain bike trails
- snowmobile trails
- boardwalks and piers
- culverts
- bridges

Teaching Stations

- ropes course/challenge course
- fitness course
- weather station
- wildlife blinds
- bird feeding station
- animal tracking plot
- wildlife exclosures
- orienteering course
- demonstration areas
- rifle and/or archery range
- soil profile
- stumps, logs, and/or brushpiles
- sundial
- arboretum
- groundwater monitoring well and/or piezometer

Kindling

from Turtle Lake School Forest

Don Dipprey and the Turtle Lake School Forest Committee wanted to use their school forest year-round, but they didn't have a building. They purchased a shelter made of conduit and canvas for about $600. They only put it up when it is needed.

Plan!

Condition of Existing Facilities

Determine the condition and potential of existing facilities. Decide whether to repair, remove, or replace them.

Development Recommendations

Based on your current facilities and the future plans for the school forest, develop a list of recommended improvements to the facilities. For each project, determine a projected budget, an implementation timeline, and a maintenance schedule.

Permits and Permissions

Be sure to check local zoning regulations and any deed restrictions on your property before you begin planning a building project.

If you are planning to build anything on or near water, you should also contact the closest WDNR Service Center. See page 106 - 107 in the Appendix for a listing of locations. Speak with someone from the Bureau of Water Regulations about whether you need state or federal permits for your project. You can also refer to ***Building Near Wetlands, The Dry Facts***, and ***Pond Planner*** published by the Wisconsin Department of Natural Resources. Order at no cost from WDNR – Bureau of Water Regulations, P.O. Box 7921, Madison, WI 53707, (608) 266-8030, <www.dnr.state.wi.us/org/water/fhp/waterway/index.htm>.

Consider Maintenance

Care should be taken not to plan and implement more than can be maintained. Always compare maintenance costs to the budget, staff, and other resources available when planning site developments.

For each part of your plan, list what will need to done, how it will be accomplished, and who will need to do it. It might be helpful to make a schedule listing monthly, seasonal, and annual maintenance tasks.

Duplicate this form for each facility you need to inventory.

Facility Inventory

This list will get you started. Use it to check the features the building has. Indicate the condition of each feature and any necessary repairs on a separate page. For a thorough check, arrange an inspection by the head of your school district's maintenance department.

The Basics

- ☐ Ceilings
- ☐ Doors
- ☐ Floors
- ☐ Foundation
- ☐ Gutters
- ☐ Insulation
- ☐ Roof
- ☐ Sidewalks
- ☐ Siding
- ☐ Stairways
- ☐ Walls
- ☐ Windows

Safety and Security

- ☐ Exit signs
- ☐ Smoke detectors
- ☐ Fire extinguishers
- ☐ Security system
- ☐ Locks and keys

Heating and Ventilating

- ☐ Boilers/Furnaces
- ☐ Fireplace and chimney
- ☐ Ceiling fans
- ☐ Heat controls
- ☐ Exhaust fans/Ventilators
- ☐ Air conditioning

Plumbing

- ☐ Bubblers
- ☐ Faucets
- ☐ Sinks
- ☐ Toilets
- ☐ Urinals
- ☐ Water heater
- ☐ Sewers/Septic system

Electrical and Telephone

- ☐ Lights - interior
- ☐ Lights - exterior
- ☐ Outlets
- ☐ Wiring
- ☐ Panelboards
- ☐ Telephones

Other Facilities

Check the condition of all structures and facilities. This list will get you started.

Signs

- ☐ Entrance
- ☐ Directional
- ☐ Trail
- ☐ Maps
- ☐ Road - e.g., speed limit
- ☐ Rules and regulations
- ☐ Boundary

Roads, Parking Lots, and Trails

- ☐ Surface
- ☐ Overhead clearance
- ☐ Hazard trees
- ☐ Parking stalls

Outdoor Structures

- ☐ Bike rack
- ☐ Flagpole
- ☐ Picnic tables
- ☐ Benches
- ☐ Amphitheater
- ☐ Playground equipment
- ☐ Bridges
- ☐ Culverts

Develop a School Forest Master Plan

Now it's time to think about the big picture and begin to put the pieces of the puzzle together. If your education, management, and facilities teams have worked together all along, you shouldn't have any surprises! In fact, this might be the easiest part of the process! Just remember, a good plan will be like a solid building foundation. With it you can:

- Keep your project in perspective.
- Ensure that each phase is integrated into a whole.
- Share your overall vision with others.
- Seek donations of time, money, and materials.
- Measure your accomplishments.

In addition to all of the above, your plan should also be a practical tool. The finished document doesn't need to be lengthy or professionally done. It does need to be organized in such a way that someone unfamiliar with the project could understand it. Decide whether a narrative or outline form best suits your needs. Your outcome should be a blueprint that spells out what you plan to accomplish both immediately and over the next few years.

Planning Steps

1. Formalize your background information.
2. Write your mission statement.
3. Consider and state your goals.
4. Write objectives and activities for each goal.
5. Prioritize.
6. Establish an overall timeline.
7. Identify needed resources.
8. Organize your plan.
9. Solicit comments.
10. Request approval.
11. Implement, evaluate, and reassess!

The viable age of most master plans is 5 – 10 years. You will want to have some short-term projects so that committee members, teachers, students, administrators, and the community see positive things happening. Maybe litter clean-up and trail work would transform an unused piece of land into an attractive, inviting forest in an afternoon. You also should plan for some long-term projects. A little work on the plan each year will begin to show after just a couple of years.

Formalize Your Background Information

The first section of your master plan should organize all the information you gathered about the school forest into an easily used format. Every member of the committee should have access to this information.

Using the base map and overlays you created earlier (see page 51 for more information), review the existing conditions at the school forest. Briefly discuss the plant communities, facilities, and existing educational programming. This section should include:

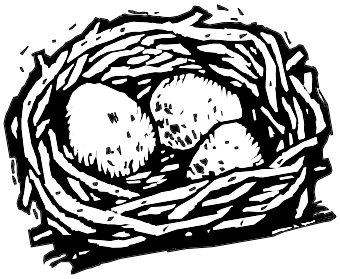
- Title page – State the name of your school district, the name of your school forest, and the forest's size and location. Be sure to date your master plan.
- History – Write a brief history of the site. You can include early maps, survey notes, historical photos, the results of title searches, and any other information you have collected.
- Natural resources – Describe the existing conditions on the land. For example, you would want to include a map showing plant communities. Also indicate species lists and other information you collected during the resource inventory process.
- Facilities – Describe buildings, trails, and bridges. Indicate the current condition of each.
- Publications – Include a listing and samples of any publications developed for the forest such as brochures, trail guides, manuals, or curriculum guides.
- Educational uses – Summarize the information you collected from teachers and students concerning current uses of the school forest and the teaching materials that are available.
- Community uses of the site – Summarize the current community uses of the site for recreation, educational programming, or hunting/gathering.
- Committee – List all of the members of the school forest committee and related subcommittees.

Write Your Mission Statement

It is important to have a clearly stated mission. The process of crafting your statement will clarify the vague feelings and thoughts that are swirling in each person's head. It will give your group a common vision that you can refer to when questions arise about what direction you should be heading.

A mission statement should clarify:

- Who you are
- What you do
- Why you do it



Think about what it is that you want your school forest to do for students, teachers, the district, and the community. Why are you trying to develop the school forest? If you can answer these questions, then you have a handle on your mission. As a committee, talk about the concepts and direction of the statement. Assign a small group of two or three to actually write the statement and bring it back to the group for approval or further editing.

Kindling

from Boston School Forest in Stevens Point

Instead of just a mission statement, this school forest committee wrote a philosophy, mission statement, and by-laws.

Philosophy

Citizens must regard their environment as something to respect and protect for existence of life. Human life depends upon the ability to exist with, nurture, and conserve the environment. This attitude can best be achieved through the understanding of the concepts of interrelationships and interdependency of things in nature.

Mission Statement

Our mission is to:

1. Help students become good stewards of the earth.
2. Have students understand that the environment is something to nurture, respect, and conserve.
3. Teach the concepts of interrelationships and interdependence.

All forest uses need to be reviewed in light of this mission.

By-laws

1. The forest shall be kept as a natural learning environment.
2. Children should receive the first consideration when determining forest use.
3. The free opportunity for education should be available, as much as possible, to all youth-affiliated organizations.
4. Raising revenues should not be the primary goal in operating the facilities, however, fees may be charged at times.

Consider and State Your Goals

Goals are general statements that reflect your desires about the school forest or the things that you would like to see happen. They should be clear, but they don't need to be specific or measurable.

Brainstorm Your Goals

Although probably not stated as goals, goals have been surfacing throughout your planning. Someone might have said, "It would be great if we could get each student in the district out to the school forest more often." Or, "What we really need is for teachers to feel more comfortable teaching outside the four walls of their classrooms!" Or, "If we harvested timber, we could use the lumber or money from a timber sale to build a shelter at the school forest." With a little editing, those are goals!

Take some time to write down your goals for the school forest. Record everyone's thoughts. You can combine similar ideas and reject wild or impractical ones later!

Kindling

from Florence School Forest

Here are a few of the goals for their school forest:

- Provide an outdoor learning site for local schools and the community in the areas of environmental education and natural science education.
- Increase student self-esteem and confidence through challenge initiatives and hands-on learning while providing exposure to natural resources.
- Support community use and appreciation for natural resources.

Kindling

from Glidden School Forest

The school forest committee shared a few of their goals:

- Make classroom learning more meaningful through application of knowledge of the environment and practical outdoor experiences.
- Gain and promote an understanding of our natural resources.
- Provide opportunities for community learning.
- Enable teachers to gain a better understanding of students through situations outside of the classroom.

Formalize Your Goals

Look back over the ideas your group has generated. As you consider each goal, do a double check. Ask these questions:

- Does this goal support our mission statement?
- Is this goal realistic? Do we have or know where to get the resources needed to accomplish this goal?
- Is it a short-term goal that we could achieve in the next year or a long-range goal that could take several years to accomplish? (You will probably want some of both!)

Don't Forget Maintenance

Be sure that you have included maintenance goals in your list! In order to properly plan and budget for regular and periodic maintenance, you must include it in this master planning process. Consider what needs to be done, who will do it, and how much it will cost.

Compile Your Final List

Combine similar ideas, eliminate unrealistic or misdirected goals, and come up with a final list. This might be enough for your first meeting on goals!

Write Objectives and Activities for Each Goal

Objectives are statements that describe how to accomplish the goals. They are specific and measurable. They often outline the general steps needed to reach each goal.

Activities are the specific steps or tasks that people must complete in order to achieve an objective. An activity statement should say what will be done, who will do it, and when it will be accomplished.

Check out the samples on the next pages. Choose one goal to work on as a committee until everyone feels comfortable with the process and then divide into small groups to write measurable objectives and step-by-step activities for each goal. Assign someone to organize the results. Before the next meeting, committee members should receive a list of all of the goals and their underlying objectives and activities.

Sample Goal

To empower teachers so they feel more comfortable teaching outdoors in the school forest.

Objective: A group of teachers (composed of those using the forest and those not using it) will determine the obstacles to use of the school forest.

- Activity: The committee will send surveys to all teachers. August.
- Activity: The committee will review survey results and decide if additional objectives need to be added to this goal. Early September.

Objective: Participating teachers will develop a school forest curriculum.

- Activity: Curriculum specialists and representative teachers will develop a scope and sequence for the school forest curriculum. It will outline the concepts to be taught at each grade level . October.
- Activity: Curriculum specialists and grade level teachers will design grade-specific lesson plans for use at the school forest. January 24 inservice.

Objective: Resource specialists and environmental education specialists will provide a one-day training session at the school forest for all teachers in the district.

- Activity: Teachers will participate in a mock field trip led by experienced teachers and/or environmental education specialists. March 24.
- Activity: Resource specialists will give a guided tour of the school forest to familiarize teachers with the land and its natural history. March 24.

Objective: Veteran teachers will partner with teachers new to teaching in the outdoors.

- Activity: Teams of teachers will meet to plan field trips. Week of March 30.
- Activity: Teams of teachers will arrange scheduling, bus transportation, and teaching materials for their classes. Week of March 30.

Objective: The school district will provide support staff and/or teaching staff on the day of field trips.

- Activity: Administrators will work with teachers to be sure that there is adequate staff available for a successful field trip on the day of each scheduled trip. April 15 through May 25.

Objective: Teams of teachers will evaluate the outdoor teaching experience.

- Activity: Teachers will meet by grade level to evaluate the effectiveness of their lesson plans. Week of their field trip.
- Activity: Teachers will meet by school building to evaluate their use of the school forest and to assess what additional resources they need to continue using the school forest . Before May 30.

Sample Goal

To provide students with opportunities to improve their self-esteem at the school forest.

Objective: Teachers and students will develop a challenge course.

- Activity: A special projects committee made up of physical education teachers, school counselors, classroom teachers, and students will form. September.
- Activity: The committee will visit and participate in challenge courses at other school forest sites. Early October.
- Activity: The committee will determine sources for ready-made components and/or construction plans. October.
- Activity: A representative of the committee will research liability concerns with the school board. October.
- Activity; The committee, in cooperation with the advanced high school drafting class, will decide on features to include and develop a phased-in site plan. January.
- Activity: The committee will establish a budget and seek funding sources. February through May.
- Activity: The committee will arrange for contractors to work with industrial arts students to install and/or construct Phase I of the challenge course. May and June.

Objective: School counselors and other interested teachers will receive training in how to use the challenge course.

- Activity: The committee will contact an experienced facilitator to train staff who intend to use the challenge course. District counseling staff will assist during the debriefing after the training. August inservice.

Objective: Teachers will schedule a variety of student groups to take part in the challenge course.

- Activity: Teachers will identify students or groups of students who would most benefit from the experience. August.
- Activity: Teachers will cooperate to adjust schedules and arrange for groups of students to participate in the challenge course. September through October.

Objective: Teachers and students will evaluate the success of the challenge course in accomplishing its goal.

- Activity: Focus groups will meet to allow students to discuss the influence of the course on their own feelings and their relationships with others. November.
- Activity: Teachers will meet to discuss any indications of changes in the students involved in the program. November.
- Activity: The committee will determine if adjustments need to be made to the challenge course design or the way it is used and set objectives and activities for the next phase of development. December.

Prioritize

Your committee is probably thinking that your plate looks way too full! Now it's time to get realistic! Discuss as a group which goals are more important. Do some goals depend on others? For example, it would be difficult to accomplish the goal of year-round programming before accomplishing the goal of constructing a winterized building. Maybe some of the resource management-related goals must be completed before the forest can even function as a safe teaching area. And, don't forget that you must maintain current facilities and schedule in the maintenance of any new developments to the site!

What are your priorities? Look back at that mission statement you wrote! Which of the goals before you are essential to beginning to fulfill your mission statement? Which goals could you put on hold for several years?

As a group, decide on a manageable set of short- and long-term goals. It is better to start small and steadily grow, rather than to overcommit and not be able to follow through.

Establish an Overall Timeline

Since your committee may be working on several goals simultaneously, draft an overall timeline. Your timeline may be very specific for the first year, listing when you will accomplish each activity. Your long-range timeline might just indicate the starting point for larger or more long-term projects.

When you see all the activities laid out on a timeline, you may need to make some adjustments. Check that your resources of time, people, or money are not spread too thin. Be sure that some of your goals have short timelines. You will want some quick success to ensure continued interest in the project. Also, steady progress on your master plan will give you an advantage in receiving grant money.

Identify Needed Resources

List the resources that you will need to accomplish each of the activities in your targeted goals. Identify the sources for funds, volunteers, equipment, or other needed resources.

Organize Your Plan

Decide on a framework that works for your committee. Somehow you need to organize all your goals, objectives, activities, priorities, and timelines into a working document. Think of the master plan as a roadmap that shows where you want to be and how to get there.

Solicit Comments

Share your draft master plan with fellow teachers, resource specialists, and teachers at other school forests. Welcome their comments about its completeness and organization. Ask them to evaluate the plan in terms of practicality and achievability. Be ready to make adjustments.

Request Approval

Your school forest master plan will probably need to be approved by the school board before it can be implemented. This should be simply a formality if a school board member has been involved in the planning process and if you have done a good job communicating your progress.

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Implement

Now it is time to put your plan to work. You will probably find that you need to do some housekeeping tasks before you are ready to take students to the school forest. You will find samples of the some of the following in the Appendix.

- Rules & Regs for using the school forest on page 94.
- School Forest Manual – Put together a manual with all the information teachers will need. A sample table of contents is on page 93.
- School Forest Curriculum – Publish your scope and sequence. Some schools put all of the activities used at the forest in a binder for reference.
- Procedures for scheduling groups at the forest.
- Procedures for recording use.

Monitor/Assess/ Evaluate

How will you evaluate the success of your School Forest Plan? What benefits do you expect to receive? What methods and procedures will you use to assess how well your goals and objectives are being met?

Your school forest committee should review the plan and the budget annually to assess your accomplishments and progress. Be ready to issue updates or revisions based on experiences and feedback. And don't forget to share your progress, success stories, and program evaluation with the school board, district staff and administrators, and the community.

Appendix

Sample Natural Resource Management Plans

Management Plan and Marking of Compartment 3

Madison School Forest
December 1997

General Goal

The general goal of the 76-acre Forestry Demonstration Area is to show how sustainable light harvesting of trees in a mature oak forest in southern Wisconsin can be done in such a way as to preserve biological diversity, maintain the aesthetics of a mature forest, and promote the development of old-growth features. It will become, in essence, a managed old-growth forest. We hope it will become a regional showcase of ecologically sound management.

Because of this management philosophy, we expect that most visitors will not be able to see much difference between the Forestry Demonstration Area and the Natural Area preserve on the other side of the main trail. This approach will help maintain the overall ecological integrity and mature character of the entire school forest.

Specific Features of the Plan

The forestry management plan was developed in October 1995 by team members from the Madison Metropolitan School District, U.W. Dept. of Forest Ecology & Management, U.W. Arboretum, Wisconsin DNR Bureau of Forestry, Wisconsin DNR Bureau of Endangered Resources, and the School Forest Naturalists staff.

The plan is very specific, setting up numerical criteria to ensure that the overall goals will be met. The 76-acre area is divided into 3 compartments. Each compartment will receive a light selective harvest once every 15 years. No more than 20% of the timber volume will be cut in any one harvest. Trees will be marked for cutting and inspected by team members, and only marked trees can be cut by the logger. Trees will be marked in such a way as to maintain the dominance of oak, maintain the large-tree character, and discourage succession to other species. The harvest can only be done on frozen ground to minimize soil disturbance. Because the rate of harvest is less than the natural rate of growth, the stand basal area and number of large trees will gradually increase over present levels.

To maintain the large-tree and old-growth character, stand basal area (currently 100-120 sq ft/acre) will be at least 90 sq ft immediately after harvest, and there must be at least 40 sq ft per acre in large trees (16-32 inches dbh). Three large cavity trees per acre will be designated as reserve trees, which will be allowed to live out their natural lifespan. When these trees die, they will not be salvaged, so that they will create large snags and hollow logs of benefit to wildlife.

Because oak saplings need sizable openings for long-term survival and growth, a few small openings will be created in each harvest to encourage the regeneration and perpetuation of oaks. These openings will not be larger than needed to ensure adequate survival and growth. Initially, openings of 0.1 acre will be tried (75 feet across) and the success of oaks in these openings monitored. These larger openings will not occupy more than 3% of the compartment area in each harvest, a rate which is similar to the natural gap formation rate

Current Marking in Compartment 3

Compartment 3, about 20 acres in size, was marked in November 1997. This proposed harvest is lighter than required in the guidelines. An estimated 14% of the timber volume has been marked. More than 60% of the marked trees are of modest size (12-14" dbh) and poor in quality and vigor. They are a legacy of the exploitive logging that occurred on this tract in the 1950's. By thinning the canopy and removing the poor quality trees, the more impressive specimens left behind will accelerate their growth and reach a large size sooner than otherwise.

There will also be more large trees immediately after harvest than required in the guidelines. Whereas the guidelines require 40 sq ft /acre in trees 16-32" dbh, the marked stand will retain 65 sq ft/acre in these size classes. Only 5% of trees larger than 20" dbh were actually marked. When the next harvest is made 15 years from now, there will be substantially more large trees than there are today, and the average size will be bigger. We did not encounter any live trees larger than 26" dbh in our 1997 sample, but we expect some trees to reach a dbh of 30" in the next 20 years.

We identified and marked for retention (blue spot of paint on the root collar) all medium and large cavity trees that we saw on the 20-acre tract. Potential cavity trees (those with large broken limbs that may develop cavities in the future) were also marked as reserves. A total of 46 cavity and potential cavity trees were discovered and recorded. Additional cavity trees will be reserved in the future as soon as their presence becomes apparent, in order to fulfill the goal of 3 per acre.

Two 0.1-acre openings were marked to stimulate oak regeneration. These occupy 1% of the compartment area, which again is more conservative than the 3% allowed in the guidelines. In the process of examining the tract thoroughly, we came across many small oaks 2-6" dbh, and we are reasonably optimistic that the removal of scattered mature trees may be sufficient to release these small oaks from competition. The two 0.1 acre openings were placed in pockets of poor-quality, medium-sized trees in areas where some trees had already died from oak wilt.

To retard succession to red maple, 24 maples ranging from 12-18" dbh were marked for removal, along with numerous small elm and boxelder. However, we retained the pocket of red maples in the north part of the compartment for the benefit of the naturalists, who have traditionally used that spot to demonstrate the differential effect of maple on the microclimate.

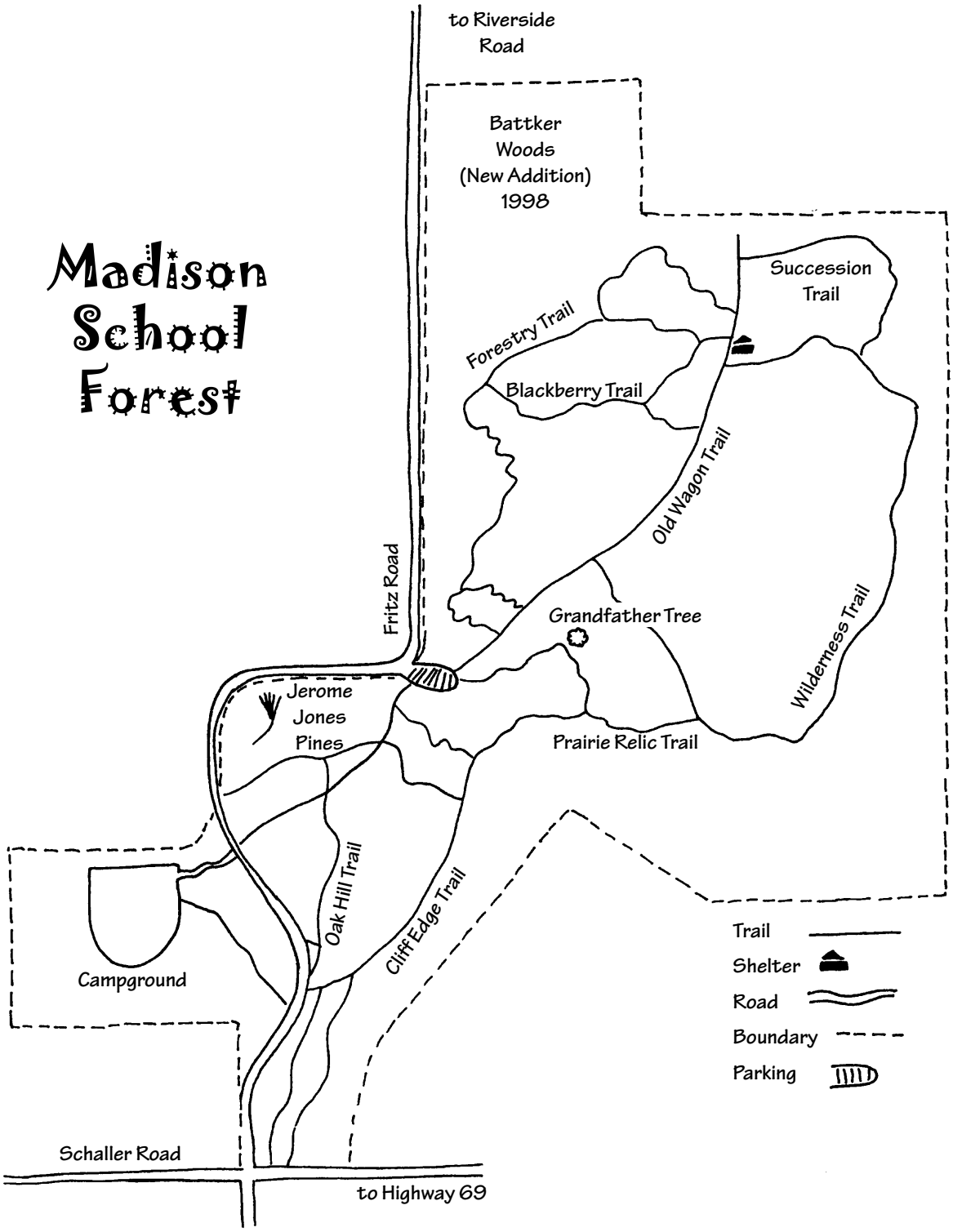
Management Plan Summary

Goal: A Managed Old-Growth Forest

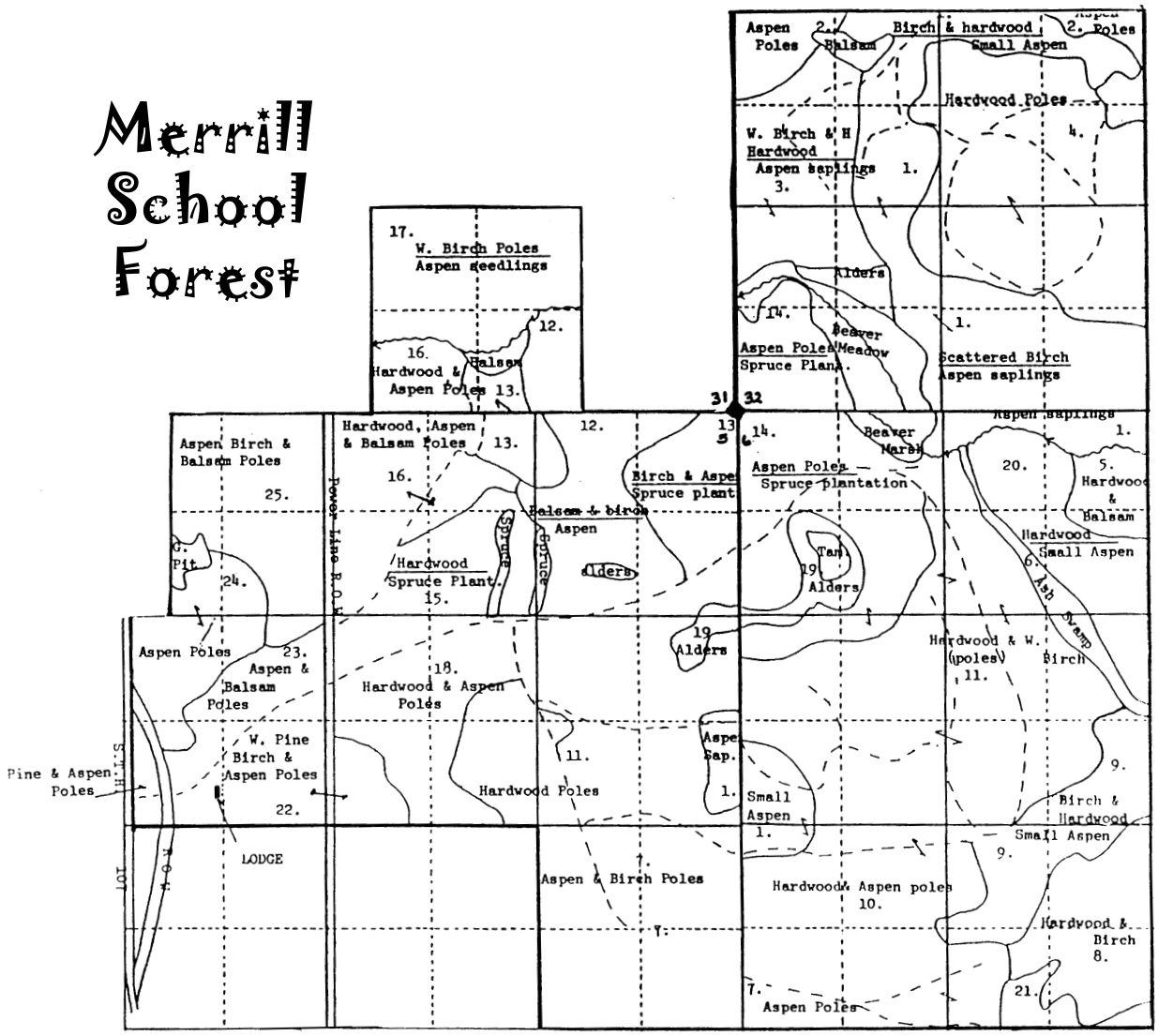
To demonstrate how light timber harvests can be done in a way that maintains biological diversity, maintains mature forest values, and accelerates the development of old-growth features.

Summary of Marking on Compartment 3

Management Plan Specifications	Actual Marking
Not more than 20 % of timber volume cut	14% marked
At least 40 sq ft/acre in trees 16 - 32" dbh remaining after harvest	65 sq ft/acre retained
Not more than 20 % of large trees cut	5% of large trees marked
3 large cavity trees/acre, permanently reserved for wildlife	2.3 large cavity trees/acre currently present and reserved; more will be added as they develop
Openings of 0.1 acre will not occupy more than 3% of stand area	Two 0.1-acre openings, occupying 1% of stand area
Retard succession to maples and elms	24 red maples (12-18") marked for removal
	35 elms and other misc. hardwoods marked for removal
Retain uncommon species	Several fine specimens of hickory, black cherry, black walnut, and hackberry retained


Madison School Forest
to Riverside Road
Battker Woods (New Addition) 1998
Succession Trail
Forestry Trail
Blackberry Trail
Old Wagon Trail
Fritz Road
Grandfather Tree
Wilderness Trail
Jerome Jones Pines
Prairie Relic Trail
Oak Hill Trail
Cliff Edge Trail
Campground
Trail
Shelter
Road
Boundary
Parking
Schaller Road
to Highway 69

Merrill School Forest



Merrill School Forest Management Plan

A WDNR forester prescribed management practices for each stand in this forest. You will find a few of the recommendations listed below. The numbers correspond to the numbers on the map above.

Stand No. 2 – 13 acres – Mature aspen should be cut within the next five years.

Stand No. 4 – 47 acres – Well stocked stand of mixed hardwoods. No treatment needed. Reexamine in 10 years.

Stand No. 7 – 66 acres – Mature aspen, birch, and balsam. Should have a regeneration cut now.

Stand No. 11 – 94 acres – Mixed stand of hard maple, basswood, birch, and ash. Somewhat overstocked in spots and would benefit from a light thinning. Cut products could be salvaged for firewood.

Stand No. 15 – 15 acres – Hardwood, aspen, and birch overtipping Norway spruce. A commercial timber sale should be held to remove the aspen and hardwoods. If the spruce does not respond to the release in five years, consideration should be given to complete removal and replanting with a more suitable species.

Stand No. 25 – 26 acres – Overmature balsam and aspen. Considerable balsam has already been lost to wind damage. High priority for timber sale soon.

Stand No. 26 – 8 acres – Road and power line right-of-way. No treatment advised. These areas provide valuable "edge" effect for wildlife in their present condition.

School Forest Manual

Your school forest committee might want to develop a school forest manual or handbook. The manual would give classroom teachers the basic information needed to use the school forest as a teaching resource. You can borrow the following parts from the master plan:

- **Mission statement**
- **History**
- **Site map**
- **Plant communities and species lists**

Add logistical information, curriculum planning guidelines, and any other necessary bits of information, and you have a tool that will help teachers use the school forest.

Kindling

from Marshfield School Forest

Larry Wisniewski and the school forest committee have developed a *School Forest Handbook.* It looks like a great way to organize the information that teachers need to have! Here's a peek at the Table of Contents:

- Location Map (showing relationships between the school forest and all schools in the district)
- History of the School Forest
- Maps (geographic location and legal description, soils, topography, trails, vegetation)
- Procedures for Reserving the School Forest (scheduling form, preference scheduling for certain grades in different seasons, scheduling process, permission slips)
- Policy, Rules and Procedures (School Board policy related to outdoor education, dangerous weapons in the schools, and school forest regulations)
- Health, First Aid, and Safety (emergency procedures for the school forest in the event of injury or illness with specific information on tick bite and Lyme disease, spider bites, heat exhaustion, heat stroke, hypothermia, wounds, blisters)
- Teacher Supplies (checklist of things to bring to the forest and a list of items available at the forest)
- Forest Procedures and Courtesies (information on how to take care of indoor facilities and outdoor areas at the forest including how to handle garbage, adjust thermostats, and respect the land)
- Appendix (*Field Trip Notification* to send to parents, list of important school forest resource people with contact information: committee members, local conservation warden, area foresters, area nature centers, local societies and organizations, local businesses, and emergency phone numbers)

Rules & Regs

Most school forests will need or want rules for their school forest. The school board will be responsible for establishing policies concerning the use of the school forest. They will probably want considerable input from your school forest committee.

Kindling

from Marshfield School Forest

The school board established this policy concerning the use of the school forest:

Use of School Forest (832)

The School Forest's primary use is for environmental education of the students of the School District of Marshfield. Recreational use by the public is encouraged if it does not disrupt the environment and is not in conflict with school use.

Regulations

A. The School Forest facilities will be available for public use between the hours of 8:00 a.m. and 5:00 p.m. from November 1 through March 31 and 8:00 a.m. through 9:00 p.m. from April 1 through October 31. Use by the general public will be prohibited at other hours.
   1. Exceptions will include groups from the School District of Marshfield who are staying overnight, organizations that have rented the facilities, or anyone obtaining special written authorization from school district officials.
   2. Questions or concerns regarding use shall be directed to the School Forest Coordinator.
   3. School classes and groups shall have first priority.

B. The use of motorized recreational vehicles on the School Forest property is prohibited.
   1. Motorized recreational vehicles include three-wheelers, four-wheelers, motorcycles, mopeds, snowmobiles, and bikes. Bicycles will be allowed on trails that have a granite or hard surface base. Bicycles are prohibited on the remainder of the skiing and hiking trails.
   2. Any exceptions must be authorized, in writing, by school district officials.

C. Hunting will not be allowed when school or rental groups are on the property.

D. Swimming and boating at the School Forest pond are prohibited unless the activity is directed by school personnel with a qualified lifeguard present. Rental groups wishing to utilize the pond for swimming and/or boating must certify, in writing, at the time they rent the facility, that they will provide a certified lifeguard and/or boating instructor.

E. Any trail clearance and/or modifications are to be approved by the coordinator of the School Forest and the environmental committee.

F. Sledding, tubing, and snowboarding in the School Forest are prohibited.

O. Individuals utilizing the School Forest, including those who have rented the facilities, may not bring pets.

H. Rules and regulations of the School District of Marshfield apply at the School Forest. No smoking, use of drugs or alcoholic beverages, vandalism, or disorderly conduct will be permitted.

I. Campfires should be restricted to the fire pit by the lodge unless other arrangements are approved by the School Forest Coordinator. During the DNR specified or school authorized fire bans, no burning will be allowed.

J. Parking and use of School Forest roads by the public are not permitted unless authorized by school personnel. This is to ensure student safety and guard against the potential of vehicles being locked in.

K. Violators of School Forest regulations will be subject to the laws, ordinances, and penalties of the city of Marshfield, county of Wood, and the state of Wisconsin.

The School Forest Coordinator or any Marshfield Teacher is the authorized person in charge of enforcing the School Forest policy.

Teaching in Classrooms Without Walls

Taking students outside can be a wonderful, rewarding experience. It can also be a teacher's worst nightmare. Helping teachers to feel comfortable taking their students outside the four walls of the classroom is an important part of growing your school forest. Here are some tips:

Teacher Inservices

Are only a handful of teachers using your school forest? Maybe the others would if they felt trained to do so. Offer an inservice at the school forest. Invite a forester or other resource specialists to share information about the forest with the teachers. Ask experienced teachers to model teach several lessons at the school forest. Evaluate the lessons together and help teachers recognize simple techniques that will allow them to teach outside effectively.

Peer Coaching

Encourage veteran outdoor teachers to "coach" inexperienced teachers through their first field trips. The coaches can help plan the lessons, go over the list of things to think about, offer helpful organizational hints, and encourage the teachers who are new to outdoor teaching.

Team Teaching

Teachers can also encourage each other by sharing the teaching responsibilities.

Rules

Students know what is expected of them in the classroom. Teachers establish, discuss, and often post rules early in the year. Students also know the consequences of breaking the rules. When students learn outside, many of those same rules still apply. Here are some things to discuss with students **before** heading outdoors:

- This is class time. Class rules apply.
- You must come outside ready to learn. Be sure you have your notebook or clipboard, pencil, and any other equipment that you need for the lesson.

Tips and Tricks

And finally, some strategies that will make teaching outdoors more productive and less stressful for the teacher and students:

- With lesson plan in hand, visit the site and walk through your planned field trip **without** students! Select a good route which meets your objectives.
- Check for hazards such as poison ivy, nettles, wild parsnip, mosquitoes, bees, ticks, and other potential problems.
- Be sure you have everything you need for your outdoor experience! This includes arranging for chaperones and collecting teaching materials, first aid kits, permission slips, and special clothing. Be sure you know how to get to the site and where restrooms and drinking water are located.
- Be sure your expectations are clear to the students. They should know exactly why they are going outdoors and what they are to accomplish. Go over the rules right before going outside.
- Make sure parents know their children should dress for the weather. Do not make unreasonable demands for dress. If you work in an area where children may not be able to

afford warm clothes, you may have to schedule warm weather outings. Children will not learn if they are too hot, wet, or cold. You may have to cut the trip short. You want their memories of the outdoor experience to be positive so they will try it again.

- In the beginning, be sure that students are producing a product that you can collect. This helps to ensure that students stay on task. The product might be a sketch, a completed data sheet, or a creative writing exercise.
- In the beginning, plan teacher-directed activities. As you and the children become comfortable learning in the outdoors, you can relax and move toward teacher-student cooperative activities.
- Go with the flow. Don't let all of your planning get in the way of a wonderful, spontaneous happening.
- Share yourself. Say, "I really like..." or "My favorite animal is..." Children will remember the sharing of feelings much longer than the sharing of information.
- It's O.K. to say, "I don't know." In fact, it's great, especially if you and the students find out the answer together either by further exploration or research back at school.
- If you do know, don't show off! Sometimes learning seems to stop when something has a name. Ask leading questions. Let the children discover the information themselves.
- Share what feels comfortable. If you are not fond of spiders and snakes, teach about wildflowers! Children will notice your apprehension and fears.
- Actions speak louder than words in other ways too. Modeling positive behavior is more effective than talking about it. Pick up the candy wrapper and put in your pack. The children will notice.
- Evaluate the experience from both your own and the children's perspectives. What would you do the same? Anything you would change? How can you build on this experience?

Helpful Logistics

- Teach the children to arrange themselves in a circle when you stop to discuss something so that everyone has a front row seat.
- Always address the children with the sun in your eyes rather than theirs so that they are not squinting to see you.
- If you have a long explanation for an activity or a discussion planned, have children sit down. It will be much easier to keep everyone on task.
- If you are sending individuals or teams off to investigate, set boundaries and use a prearranged signal to call everyone back.
- Think through what you would do in a worst-case scenario. Know the locations of hospitals, public phones, and permission slips.
- You will need extra help. For hiking and activities requiring individual attention, small group sizes are best. The younger the children, the smaller the group. One adult can probably handle 8 preschoolers or 12 junior high students. Wait. . . maybe that's backwards! If small groups are not possible, structure activities so that children are working in groups of two or three. This means you have 10 to 15 "groups" in a class instead of 30 "children".

Routine and Innovative Ways to Involve Students in the School Forest

It would be easier and faster to complete all the planning steps regarding the school forest without student involvement. However, involving the students on every level will give them ownership of the project and will be a great learning experience.

Students can:

inventory	prune	investigate	design	collect
build	draft	compile	plan	analyze
write	photograph	explore	observe	evaluate
draw	map	measure	ask	identify
record	research	test	interview	listen
clean up	persuade	videotape	survey	speak
plant	solicit	monitor	describe	

In fact, with the right facilitating, students can do many of the tasks needed to grow a school forest!

Kindling

from Tri-County School Forest

For six weeks each summer, selected juniors and seniors in high school earn one elective science credit they will never forget! First they dig in the soil, measure trees, search for wildlife, and investigate the ecology of their school forest. Then they learn how to teach what they have learned to younger students. The "counselors-in-training" practice writing lesson plans using effective teaching strategies. They learn how to handle everything from a medical emergency to a disruptive student. By the time the summer is over, they have the skills they need to lead a group of students on a field trip to the school forest.

And that is exactly what they do! When school starts, the full-fledged counselors can earn additional credit by working as an EE counselor. In this role, they work with teachers to schedule and plan field trips. The students handle most of the planning and logistics, including scheduling their fellow counselors to teach on the day of the field trip. Larry Mancl reports that many of the counselors graduate with plans to pursue careers in education, natural resources, or the environmental sciences.

Kindling

from Tri-County School Forest

Juniors and seniors involved in Larry Mancl's summer counselor training (described above) are also responsible for completing a Legacy Project. Their projects must connect with the environmental education program and serve the district and community for many years to come. Here are some of the projects they have completed: establishing a cross-country ski trail, painting a large map of the forest for the entrance, writing a user's guide for the forest, constructing a challenge-by-choice course, building Leopold benches with inscribed quotes, and developing tree identification stations.

Kindling

from Wonewoc Outdoor Learning Area (OLA)

Natural resource students in John Cler's class begin each school day 40 minutes early at the OLA. Students do maintenance and development projects from August to October. They have built trails, bridges, woodsheds, outhouses, and a group challenge course. They study trapping, white-tailed deer biology, and wilderness survival from October through January.

Kindling

from Boston School Forest in Stevens Point

Sally Ellingboe takes seventh graders on early morning bird walks for six weeks each spring. They witness the northern migration of birds and keep their eyes on a pair of nesting sandhill cranes. She combines journal keeping and bird watching to help them discover the wonder of the approaching spring.

Wisconsin School Forests

This list is maintained by UW-Madison Department of Forest Ecology and Management. Please contact Mark Rickenbach with questions or comments at: (608) 262-0134, mrickenbach@cals.wisc.edu.

Adams

Friendship High School Forest
PO Box 346
Adams, WI 53910
(608) 339-6214
80 acres

Castle Rock School Forest
420 N. Main St.
Adams, WI 53910-0346
(608) 339-3213 (X232)
37 acres

Pine Land School Forest
Rt. 1
Friendship, WI 53934
(608) 564-7424
39 acres

Ashland

Butternut School Forest
PO Box 247
Butternut, WI 54514
(715) 769-3434
40 acres

Glidden School Forest
PO Box 96
Glidden, WI 54527
(715) 264-2021
40 acres

Barron

Chetek School Forest
1201 6th St.
Chetek, WI 54727
(715) 924-2226
97 acres

Cumberland High School Forest
PO Box 670
Cumberland, WI 54829
(715) 822-5117
80 acres

Prairie Farm High School Forest
630 S. River Ave.
Prairie Farm, WI 54762
(715) 455-1861
40 acres

Rice Lake High School Forest
30 S. Wisconsin
Rice Lake, WI 54868
(715) 234-2182
40 acres

Turtle Lake School Forest
205 Oak St
Turtle Lake, WI 54889
(715) 986-4655
153 acres

Bayfield

Drummond School Forest
PO Box 40
Drummond, WI 54832
(715) 739-6231
40 acres

Washburn City School Forest
411 8th Street W
Washburn, WI 54891
(715) 373-6199
40 acres

Brown

Preble High Forestry Lab
241 S. Danz Ave.
Green Bay, WI 54302
(920) 391-2400
40 acres

Buffalo

Alma High School Forest
S1618 State Rd. 35
Alma, WI 54610-8301
(608) 685-4416

Cochrane-Fountain City High School Forest
PO Box 517
Fountain City, WI 54629
(608) 687-4391 (X152)
7 acres

Burnett

Grantsburg School Forest
480 E. James Ave.
Grantsburg, WI 54840
(715) 463-2531
160 acres

Siren School Forest No. 2
PO Box 29
Siren, WI 54872
(715) 349-2277
58 and 40 acres

Calumet

Chilton School District Forest
421 Court St.
Chilton, WI 53014
(920) 849-9152
10 acres

Hilbert High School Forest
1139 W. Milwaukee St.
Hilbert, WI 54129
(920) 853-3558
73 acres

Chippewa

Bloomer High School FFA Forest
1310 17th Ave.
Bloomer, WI 54724
(715) 568-5300
40 acres

Chippewa Falls School Forest
1130 Miles St.
Chippewa Falls, WI 54729
(715) 726-2417
127 acres

Cornell School Forest
PO Box 517
Cornell, WI 54732
(715) 239-6464
80 and 53 acres

Holcombe School Forest
PO Box 40
Holcombe, WI 54745
(715) 595-4241
80 acres

New Auburn Area School Forest
PO Box 110
New Auburn, WI 54757
(715) 237-2202
71 and 40 acres

Stanley School Forest
Stanley-Boyd High School
E. 4th Ave.
Stanley, WI 54768
(715) 644-5357
80 acres

Clark

Colby Union Free High School Forest
PO Box 110
Colby, WI 54421
(715) 223-2338 (X143)
20 acres

Granton High School Forest
217 N. Main St.
Granton, WI 54436
(715) 238-7175
80 acres

Greenwood School Forest
209 S. Hendren St.
Greenwood, WI 54437
(715) 267-6101
80 acres

Neillsville School Forest
401 Center St.
Neillsville, WI 54456
(715) 743-5836
60 and 6 acres

Owen-Withee Public Schools
PO Box 417
Owen, WI 54460
(715) 229-2151
80 acres

Thorp Public School Forest
PO Box 449
Thorp, WI 54771
(715) 669-5401
80 acres

Columbia

Cambria High School Forest
Cambria-Friesland High School
410 E. Edgewater St.
Cambria, WI 53923-1000
(920) 348-5135
20 acres

Lodi School Forest
101 School St.
Lodi, WI 53555
(608) 592-3853 (X449)
40 acres

Pardeeville Memorial School Forest
120 Oak St.
Pardeeville, WI 53954
(608) 429-2153
40 acres

Portage High School Forest
904 Dewitt St.
Portage, WI 53901
(608) 742-4879
34 and 4 acres

Rio School Forest
411 Church St.
Rio, WI 53960
(414) 992-3141
40 acres

Wisconsin Dells Memorial High School Forest Annex
520 Race St.
Wisconsin Dells, WI 53965
(608) 253-1461 (X1205)
70 and 8 acres

Crawford

North Crawford High School Forest
PO Box 68
Gay Mills, WI 54631
(608) 735-4311
10 acres

Prairie du Chien School Forest
800 E. Crawford
Prairie du Chien, WI 53821
(608) 326-8437 (X429)
26 acres

Dane

Cambridge FFA School Forest
Box 27
Cambridge, WI 53523
(608) 423-3262
23 acres

Dodge

Dodgeland Nature Center/School
302 S. Main St.
Juneau, WI 53039
(920) 386-2601
22 acres

Door

Southern Door High School Forest
8240 Hwy 57
Brussels, WI 54204
(920) 825-7333
60 acres

Douglas

Northwestern High School Forest
PO Box 188
Maple, WI 54854
(715) 363-2434
160 acres

Solon Springs School Forest
St. Croix High School
8993 E. Baldwin Ave.
Solon, WI 54873
(715) 378-2263
80 acres

Superior School Forest
Northland Secondary School
611 24th Ave. E
Superior, WI 54880
(715) 398-6608
720 acres

Dunn

Boyceville High School Forest
161 E. St.
Boyceville, WI 54725-9407
(715) 643-4321
20 acres

Colfax School Forest #2
601 University Ave.
Colfax, WI 54730
(715) 962-3155
80 acres

Eau Claire

Fairchild Township School Forest
Osseo-Fairchild High School
PO Box 130
Osseo, WI 54758
(715) 597-3141 (X233)
40 acres

Fall Creek School Forest
336 E. Hoover Ave.
Fall Creek, WI 54742
(715) 877-2809
80 acres

Mondovi High School Forest
337 N. Jackson St.
Mondovi, WI 54755-1197
(715) 926-3656
30 acres

Florence

Florence School Forest
PO Box 440
Florence, WI 54121
(715) 528-3215
80 and 40 acres

Forest

Crandon School Forest
PO Box 310
Crandon, WI 54520
(715) 478-3713
10 acres

Laona School Forest
PO Box 57
Laona, WI 54541
(715) 674-2413
63 acres

Wabeno School Forest
PO Box 60
Wabeno, WI 54566
(715) 473-5122
40 acres

Green Lake

Berlin School Forest
222 Memorial Dr.
Berlin, WI 54923
(920) 361-2000
12 and 20 acres

Rogers Pioneer Family Memorial
Markesan High School
100 Vista Blvd.
Markesan, WI 53946
(920) 398-2373 (X351)
76 acres

Iowa

Dodgeville High School Arboretum
912 W. Chapel
Dodgeville, WI 53533
(608) 935-3307
22 acres

River Valley School Forest-Arena
PO Box 729
Spring, WI 53588-0729
(608) 588-2554
185 and 13 acres

Iron

Hurley School Forest
15517 Range View Dr.
Hurley, WI 54534
(715) 561-3340
120 acres

Mercer School Forest
PO Box 567
Mercer, WI 54547
(715) 476-2154
40 acres

Jackson

Melrose-Mindoro School Forest
N181 State Road 108
Melrose, WI 54642
(608) 488-2201
77 acres

Taylor School Forest
219 S. Main St.
Blair, WI 54616
(608) 989-2525
3 acres

Tomah High Forest
901 Lincoln Ave.
Tomah, WI 54660
(608) 374-7209
78 and 65 acres

Whitehall Memorial High School Forest
PO Box 37
Whitehall, WI 54773
(715) 538-4364
77 acres

Jefferson

Waterloo Community Schools
865 N. Monroe St.
Waterloo, WI 53594
(920) 478-2171
174 acres

Juneau

Elroy-Kendall-Wilton School Forest
Royal High School
PO Box A
Elroy, WI 53929
(608) 462-2602
80 acres

Mauston School Forest
508 Grayside Ave.
Mauston, WI 53948
(608) 847-4410 (X435)
97 and 20 acres

Necedah Public School Forest
200 6th St.
Necedah, WI 54646
(608) 565-2256
40 acres

New Lisbon School Forest
500 S. Forest St.
New Lisbon, WI 53950
(608) 562-3700
40 acres

Wonewoc Center School Forest
PO Box 368
Wonewoc, WI 53968
(608) 464-3165 (X132)
140 acres

Kenosha

Kenosha School Forest
3600 52nd St.
Kenosha, WI 53141
(920) 653-7365
129 acres

Kewaunee

Dana Kewaunee County School Forest
911 3rd St.
Kewaunee,WI 54216-1698
(920) 388-2951
20 acres

Lafayette

Darlington School Forest
11838 Center Hill
Darlington,WI 53530
(608) 776-4001
4 acres

Langlade

Antigo Unified School District
1900 10th Ave.
Antigo, WI 54409
(715) 623-7611
485 acres

Elcho Joint School District #1
Hwy 45 N
Elcho, WI 54428
(715) 275-3707
110 and 286 acres

Peace Lutheran School Forest
300 Lincoln St.
Antigo, WI 54409
(715) 623-2209
40 acres

Lincoln

N.P. Evjue Memorial Forest
Merrill High School
Polk St.
Merrill, WI 54452
(715) 536-4594
732 acres

Tomahawk School Forest
1048 E. Kings Rd.
Tomahawk, WI 54487
(715) 453-2106
520 acres

Trinity School Forest
Tripoli El School
PO Box 38
Tripoli, WI 54564
(715) 564-2642
80, 80, and 80 acres

Marathon

Athens School Forest
PO Box F
Athens, WI 54411
(715) 652-2115
40 acres

Edgar School Forest
PO Box 196
Edgar, WI 54426
(715) 352-2352
80 acres

Everest School Forest
6500 Alderson St.
Schofield, WI 54476
(715) 359-6561
81 and 40 acres

Marathon High School Forest
PO Box 37
Marathon, WI 54448-0037
(715) 443-2226 (X177)
80 acres

Mosinee School Forest
1000 High St.
Mosinee, WI 54455
(715) 693-2550
78 and 40 acres

Spencer School Forest
300 School St.
Spencer, WI 54479
(715) 659-4211
47 acres

Wausau School Forest
650 S. 7th Ave.
Wausau, WI 54401
(715) 261-3140
40, 431, 62, and 80 acres

Marinette

Coleman School Forest
PO Box 259
Coleman, WI 54112
(920) 897-2291 (X159)
53 and 160 acres

Crivitz School Forest
718 Hall Hays St.
Crivitz, WI 54114
(715) 854-7492
44, 40, 80, 80, and 40 acres

Goodman School Forest
PO Box 160
Goodman, WI 54125
(715) 336-2575
26, 41, and 7 acres

Marinette School Forest
2135 Pierce Ave.
Marinette, WI 54143
(715) 732-7920
289 acres

Niagra School Forest
700 Jefferson Ave.
Niagra, WI 54151
(715) 251-4541
30 and 68 acres

Pembine School Forest
PO Box 247
Pembine, WI 54156
(715) 324-5314
40, 38, 40, 32, and 80 acres

Peshtigo School Forest
380 Green St.
Peshtigo, WI 54157
(715) 442-2391
39 acres

Wausaukee School Forest
PO Box 258
Wausaukee, WI 54177-0258
(715) 856-5151
43, 40, 40, 78, and 80 acres

Marquette

St. John's Lutheran School Forest
313 E. Montello St.
Montello, WI 53949
(608) 297-2866
200 and 13 acres

Westfield High School Forest
314 Thomas St.
Westfield, WI 53964
(608) 296-2141 (X236)
40 acres

Milwaukee

Milton C. Potter School Forest
Milton High School
114 W. High St
Milton, WI 53563
(608) 868-9336
51 acres

Monroe

Sparta High School Forest
506 N. Black River St.
Sparta, WI 54656
(608) 269-2107
80 acres

West Salem School Forest
405 E. Hamlin St.
West Salem, WI 54669
(608) 786-1220
160 acres

Oconto

Gillett School Forest
PO Box 227
Gillett, WI 54124
(920) 855-2138
80 acres

Lena Public School Forest
PO Box 48
Lena, WI 54139
(920) 829-5244
25 acres

Oconto Falls School Forest
408 Cedar St.
Oconto, WI 54154
(920) 846-4467
40 acres

Suring School Forest
PO Box 158
Suring, WI 54174
(920) 842-2182
160 acres

Oneida

Arbor Vitae-Woodruff School
PO Box 1517
Woodruff, WI 54568
(715) 356-3282
22 acres

Minocqua School Forest
7450 Titus Dr.
Minocqua, WI 54548
(715) 356-5206
40 acres

Rhinelander K-12 District School Forest
Rhinelander High School
665 Coolidge Ave.
Rhinelander, WI 54501
(715) 365-9506
1239 acres

Three Lakes/Sugar Camp Joint District
PO Box 280
Three Lakes, WI 54562
(715) 546-3321
200 acres

Pierce

Elmwood Area School Forest
213 S. Scott St.
Elmwood, WI 54740
(715) 639-2721
11 acres

River Falls Public Schools Forest
230 N. 9th St.
River Falls, WI 54022
(715) 425-7830
51 acres

Polk

Frederic School Forest
PO Box 790
Frederic, WI 54837
(715) 327-4223
80 and 76 acres

Luck School Forest
810 7th St. S
Luck, WI 54853
(715) 472-2152
80 acres

Osceola Area Schools Forest
PO Box 128
Osceola, WI 54020
(715) 294-2127
80 acres

Portage

Almond/Bancroft School Forest
PO Box 130
Almond, WI 54909
(715) 366-2941
74 and 19 acres

H.D. Boston Memorial Forest
Pacelli High School
1301 Maria Dr.
Stevens Point, WI 54481
(715) 341-2442
16 acres

H.D. Boston Memorial Forest
Stevens Point Area High School
1201 N. Point Dr.
Stevens Point, WI 54481
(715) 345-5587
44 acres

Rosholt School Forest
346 W. Randolph St.
Rosholt, WI 54473
(715) 677-4551
11 acres

Price

Catawba School Forest
N4535 School St.
Catawba, WI 54515
(715) 474-3368
40 acres

Kennan School Forest
N4290 Division St.
Kennan, WI 54537
(715) 474-3344
80 acres

Park Falls School Forest
400 9th St. N
Park Falls, WI 54552
(715) 762-2472
400 acres

Phillips High School Forest
PO Box 70
Phillips, WI 54555
(715) 339-2141
200 acres

Prentice School Forest
PO Box 110
Prentice, WI 54556
(715) 428-2811
80 acres

Racine

Burlington High School Forest
201 S. Kendrick Ave.
Burlington, WI 53105
(920) 763-0200
160 acres

Wilmot Union High School Forest
11112 308th Ave.
Wilmot, WI 53192
(920) 862-2351
160 acres

Rock

Beloit School Forest
1633 Keeler Ave.
Beloit, WI 53511
(608) 364-6017
199 acres

Janesville Schools Outdoor Lab
4838 N. County Rd. F
Janesville, WI 53545
(608) 752-3107
105 acres

Rusk

Glen Flora Grade School Forest
N5778 Prentice Ave.
Glen Flora, WI 54526
(715) 322-5271
40 acres

Glendale School Forest
2600 W. Mill Rd.
Milwaukee, WI 53209
(414) 351-7160
40 acres

Ladysmith High School Memorial Forest
1700 Edgewood Ave. E
Ladysmith, WI 54848
(715) 532-5531
700, 40, and 40 acres

Linden Christian Day School Forest
N2169 County V
Sheldon, WI 54766
(715) 452-5384
40 acres

Weyerhaeuser School Forest
PO Box 1000
Weyerhaeuser, WI 54895
(715) 353-2254
40 acres

Sauk

Black Hawk School Forest
PO Box 303
South Wayne, WI 53587
(608) 439-5371
6 acres

Reedsburg School Forest
1121 8th St.
Reedsburg, WI 53959-1399
(608) 524-2328
80 acres

River Valley High School Forest
PO Box 729
Spring, WI 53588-0729
(608) 588-2556
18 acres

Weston Union High School Forest
E2511A Hwy S
Cazenovia, WI 53924
(608) 986-2151
63 acres

Shawano

Bowler School Forest
PO Box 8
Bowler, WI 54416
(715) 793-4301
80 acres

Mattoon Public Schools Forest
PO Box 80
Mattoon, WI 54450
(715) 489-3631
38 acres

Shawano School Forest
1050 S. Union
Shawano, WI 54166
(715) 526-2175 (X4136)
38 acres

Tigerton High School Future Forest
PO Box 40
Tigerton, WI 54486
(715) 535-3206
40 acres

Sheboygan

Elkhart Lake School Forest
PO Box K
Elkhart, WI 53020
(920) 876-3381 (X3232)
14 acres

Taylor

Gilman School Forest
Fifth Ave.
Gilman, WI 54433
(715) 447-8211
40, 40, 80, 40 acres

Medford Kiwanis School District Forest
1015 W. Broadway
Medford, WI 54451
(715) 748-5951
160 acres

Rib Lake School Forest
PO Box 278
Rib Lake, WI 54470
(715) 427-3220
210 acres

Stetsonville School Forest
W5338 CTH A
Stetsonville, WI 54480
(715) 678-2600
27 acres

Taft-Thorp School Forest
PO Box 449
Thorp, WI 54771
(715) 669-5401
40 acres

Trempealeau

Gale-Ettrick-Trempealeau School
PO Box 4000
Galesville, WI 54630-4000
(608) 582-2291
80 and 20 acres

Vernon

De Soto High School Forest
PO Box 7
De Soto, WI 54624
(608) 648-0112
40 acres

Viola School Forest
PO Box 217
Viola, WI 54664
(608) 627-1871
15 acres

Vilas

Flambeau Graded School Forest
PO Box 86
Tony, WI 54563
(715) 532-5559
40 acres

Lakeland Union High School Forest
8669 Old Hwy 70 W
Minoqua, WI 54548
(715) 356-5252
40 acres

Land O' Lakes School Forest
PO Box 299
Land O' Lakes, WI 54540
(715) 547-3619
40 acres

Northland Pines/Eagle River High School Forest
1800 Pleasure Island Rd.
Eagle River, WI 54521
(715) 479-4473
80 and 60 acres

Phelps School Forest
PO Box 310
Phelps, WI 54554-0310
(715) 545-2724
40 acres

Walworth

St. Mary and St. Charles School
225 W. State St.
Burlington, WI 53105
(920) 763-1515
39 acres

Washburn

Minong School Forest
N14463 Hwy. 53
Minong, WI 54859
(715) 466-2297
40 acres

Shell Lake School Forest
271 Hwy. 63
Shell Lake, WI 54871
(715) 468-7814
94 acres

Waupaca

Clintonville School Outdoor Lab
255 N. Main St.
Clintonville, WI 54929
(715) 823-7232
75 acres

Iola School Forest
Iola-Scandinavia High School
540 S. Jackson St.
Iola, WI 54945
(715) 445-2411
8 acres

New London Future Farmer School
1000 W. Washington St.
New London, WI 54961
(920) 982-8532
78 and 80 acres

Waupaca School Forest
1149 Shoemaker Rd.
Waupaca, WI 54981
(715) 258-4131
20 acres

Wega High School Forest
Weyauwega High School
PO Box 580
Weyauwega, WI 54983
(920) 867-2171
20 acres

Waushara

Coloma Grade School Forest
210 Linden St.
Coloma, WI 54930
(715) 228-2851
43 acres

Rose Township Forest
Wild Rose High School
PO Box 276
Wild Rose, WI 54984
(920) 622-4201
139 acres

Tri County School Forest
PO Box 67
Plainfield, WI 54966
(715) 335-6366
230 acres

Winnebago

Omro School District Forest
455 Leach St.
Omro, WI 54963
(920) 685-7405 X153
6 acres

Wood

Alexander High School Forest
540 Birch St.
Nekoosa, WI 54457
(715) 886-8040
32 acres

Auburndale School Forest
PO Box 190
Auburndale, WI 54412
(715) 652-2115
123 acres

Children's Choice Elementary
2390 48th St. S
Wisconsin Rapids, WI 54494
(715) 422-6126
4 acres

John Edwards School Forest
801 2nd St.
Port, WI 54469
(715) 887-9000
31 acres

Marshfield Senior High School Forest
1401 Becker Rd.
Marshfield, WI 54449
(715) 387-8464
320 acres

Wisconsin Rapids School & Water Department
Lincoln High School
1801 16th St. S
Wisconsin Rapids, WI 54494
(715) 422-6097
252 acres

Wisconsin Department of Natural Resources

Service Centers

Madison Central Office

WDNR Information Center
101 S. Webster St.
Madison, WI 53703
(608) 266-2621 - phone
(608) 261-4380 - fax
(608) 267-6897 - tdd

WDNR Northeast Region

WDNR Northeast Region Headquarters
1125 N. Military Road, Box 10448
Green Bay, WI 54307-0448
(920) 492-5800 - phone
(920) 492-5913 - fax
(920) 492-5812 - tdd

WDNR Oshkosh Service Center
625 E. County Rd. Y, Suite 700
Oshkosh, WI 54903-2565
(920) 424-3050 - phone
(920) 424-4404 - fax

WDNR Peshtigo Service Center
101 N. Ogden Rd.
PO Box 208
Peshtigo, WI 54157
(715) 582-5000 - phone
(715) 582-5005 - fax

WDNR Sturgeon Bay Service Center
110 S. Neenah Ave.
Sturgeon Bay, WI 54235-2718
(920) 746-2860 - phone
(920) 746-2863 - fax

WDNR Southeast Region

WDNR Southeast Region Headquarters
2300 N. Dr. Martin Luther King Jr. Dr.
PO Box 12436
Milwaukee, WI 53212
(414) 263-8500 - phone
(414) 263-8606 - fax

WDNR Plymouth Service Center
W5750 Woodchuck Ln.
PO Box 408
Plymouth, WI 53073
(920) 892-8756 - phone
(920) 892-6638 - fax

WDNR Sturtevant Service Center
9531 Rayne Rd., Suite 4
Sturtevant, WI 53177
(262) 884-2300 - phone
(262) 884-2306 - fax
(262) 884-2304 - tdd

WDNR South Central Region

WDNR South Central Region Headquarters
3911 Fish Hatchery Rd.
Fitchburg, WI 53711
(608) 275-3266 - phone
(608) 275-3338 - fax
(608) 275-3231 - tdd

WDNR Dodgeville Service Center
1500 N. Johns St.
Dodgeville, WI 53533-2116
(608) 935-3368 - phone
(608) 935-9652 - fax

WDNR Horicon Service Center
N7725 Hwy. 28
Horicon, WI 53032-1060
(920) 387-7860 - phone
(920) 387-7888 - fax

WDNR Janesville Service Center
2514 Morse St.
Janesville, WI 53545
(608) 743-4800 - phone
(608) 743-4801 - fax
(608) 743-4808 - tdd

WDNR Poynette Service Center
W7303 County Hwy. CS
Poynette, WI 53955
(608) 635-8110 - phone
(608) 635-8107 - fax

WDNR West Central Region

WDNR West Central Region Headquarters
1300 W. Clairemont
PO Box 4001
Eau Claire, WI 54702-4001
(715) 839-3700 - phone
(715) 839-6076 - fax

WDNR Baldwin Service Center
990 Hillcrest, Suite 104
Baldwin, WI 54002
(715) 684-2914 - phone
(715) 684-5940 - fax

WDNR Black River Falls Service Center
910 Hwy 54 E
Black River Falls, WI 54615
(715) 284-1400 - phone
(715) 284-1737 - fax

WDNR La Crosse Service Center
3550 Mormon Coulee Rd.
La Crosse, WI 54601
(608) 785-9000 - phone
(608) 785-9990 - fax

WDNR Wausau Service Center
5301 Rib Mountain Rd.
Wausau, WI 54401
(715) 359-4522 - phone
(715) 355-5253 - fax

WDNR Wisconsin Rapids Service Center
473 Griffith St.
Wisconsin Rapids, WI 54494
(715) 421-7800 - phone
(715) 421-7830 - fax

WDNR Northern Region

WDNR Northern Region Co-Headquarters
107 Sutliff Ave.
Rhinelander, WI 54501
(715) 365-8900 - phone
(715) 365-8932 - fax
(715) 635-4001 - tdd

WDNR Northern Region Co-Headquarters
810 W. Maple St.
Spooner, WI 54801
(715) 635-2101 - phone
(715) 635-4105 - fax

WDNR Antigo Service Center
223 E. Steinfest Rd.
Antigo, WI 54409
(715) 627-4317 - phone
(715) 623-6773 - fax

WDNR Hayward Service Center
10220 N. St. Hwy. 27
PO Box 2003
Hayward, WI 54843
(715) 634-2688 - phone
(715) 634-6518 - fax

WDNR Ladysmith Service Center
N4103 Hwy. 27
Ladysmith, WI 54848
(715) 532-3911 - phone
(715) 532-4901 - fax

WDNR Park Falls Service Center
875 S. 4th Ave.
PO Box 220
Park Falls, WI 54552
(715) 762-3204 - phone
(715) 762-4348 - fax

WDNR Superior Service Center
1401 Tower Ave.
Superior, WI 54880
(715) 392-7988 - phone
(715) 392-7993 - fax

WDNR Woodruff Service Center
8770 Hwy. J
Woodruff, WI 54568
(715) 356-5211 - phone
(715) 358-2352 - fax

Wisconsin Department of Natural Resources

Foresters by County

WDNR Foresters can provide resource information, technical assistance, applications for free tree and shrub seedlings, and access to many other services and publications from the Wisconsin Department of Natural Resources. Begin by contacting the office of the forester assigned to your county. A more up-to-date version of this list with the current foresters' names is available online at <www.dnr.state.wi.us/org/land/Forestry/ftax/county.htm>.

Adams
WDNR Forester
Hwy. 13, Box 100
Friendship, WI 53934
(608) 339-3385

Ashland
WDNR Forester
Box 709
Mellen, WI 54546
(715) 274-6321

Barron
WDNR Forester
1418 E. La Salle Ave.
Barron, WI 54812-1638
(715) 537-5046

Bayfield
WDNR Forester
PO Box 545
Washburn, WI 54891
(715) 373-6165

Brown
WDNR Forester
1125 N. Military Ave.
PO Box 10448
Green Bay, WI 54307
(920) 492-5856

Buffalo
WDNR Forester
Courthouse, Box 88
Alma, WI 54610
(608) 685-6223

Burnett
WDNR Forester
7410 CTH K, #106
Siren, WI 54872
(715) 349-2158

WDNR Forester
PO Box 367
Grantsburg, WI 54840
(715) 463-2897

WDNR Forester
PO Box 51
Webster, WI 54893
(715) 866-8201

Calumet
WDNR Forester
3369 W. Brewster St.
Appleton, WI 54914
(920) 832-2747

Chippewa
WDNR Forester
711 N. Bridge
Chippewa Falls, WI 54729
(715) 726-7885

Clark
WDNR Forester
400 Hewett St. #106
Neillsville, WI 54456-1924
(715) 743-5134

Columbia
WDNR Forester
120 W. Conant St.
Room 103
Portage, WI 53901
(608) 742-4540

Crawford
WDNR Forester
Box 186
Gays Mills, WI 54631
(608) 735-4672

Dane

WDNR Forester
3911 Fish Hatchery Rd.
Fitchburg, WI 53711
(608) 275-3234

WDNR Forester
PO Box 256
N3150 Hwy. 81
Monroe, WI 53566
(608) 325-3050

Dodge

WDNR Forester
1210 N. Palmatory St.
Horicon, WI 53032
(920) 387-7884

Door

WDNR Forester
110 S. Neenah Ave.
Sturgeon Bay, WI 54235-2718
(920) 746-2880

Douglas

WDNR Forester
Gordon Ranger Station
Box 60
Gordon, WI 54838
(715) 376-2299

Dunn

WDNR Forester
921 Brickyard Rd.
Menomonie, WI 54751
(715) 232-1516

Eau Claire

WDNR Forester
PO Box 4001
Eau Claire, WI 54701
(715) 839-3782

Florence

WDNR Forester
HC 1 Box 81
Florence, WI 54121-9715
(715) 528-4400

Fond du Lac

WDNR Forester
625 E. County Road Y, Suite 700
Oshkosh, WI 54901-8131
(920) 424-3056

Forest

WDNR Forester
PO Box 351
Crandon, WI 54520
(715) 478-3717

Grant

WDNR Forester
150 W. Alona Ln., Ste. 3
Lancaster, WI 53813
(608) 723-2397

Green

WDNR Forester
PO Box 256
N3150 Hwy 81
Monroe, WI 53566
(608) 325-3050

Green Lake

WDNR Forester
363 Church Street
Hwy 22N
Montello, WI 53949
(608) 297-2888

Iowa

WDNR Forester
1500 N. Johns Street
Dodgeville, WI 53533
(608) 935-1917

Iron

WDNR Forester
Ranger Station
Mercer, WI 54547
(715) 476-2240

Jackson

WDNR Forester
910 Hwy 54 E
Black River Falls, WI 54615-9276
(715) 284-1415

Jefferson

WDNR Forester
Janesville Service Center
2514 Morse St.
Janesville, WI 53545
(608) 743-4830

Juneau

WDNR Forester
650 Prairie Street
PO Box 288
Mauston, WI 53948-0288
(608) 847-9394

Kenosha

WDNR Forester
9531 Rayne Rd., Suite IV
Sturtevant, WI 53177
(262) 884-2390

Kewaunee

WDNR Forester
1125 N. Military Ave.
PO Box 10448
Green Bay, WI 54307
(920) 492-5856

La Crosse

WDNR Forester
3550 Mormon Coulee Rd.
LaCrosse, WI 54601
(608) 785-9007

Lafayette

WDNR Forester
1845 Center Dr.
Darlington, WI 53530
(608) 776-3064

Langlade

WDNR Forester
223 E. Steinfest Rd.
Antigo, WI 54409-0310
(715) 627-4317

WDNR Forester
Langlade Ranger Station
W1961 Hwy 64
White Lake, WI 54491
(715) 882-2191

Lincoln

WDNR Forester
DNR Ranger Station
1110 E. 10th St
Merrill, WI 54452
(715) 536-4502

WDNR Forester
Lemay Forestry Center
518 W. Somo Ave.
Tomahawk, WI 54487
(715) 453-1259

Manitowoc

WDNR Forester
2220 E CTH V
Mishicot, WI 54228-9467
(920) 755-4984

Marathon

WDNR Forester
5301 Rib Mountain Rd.
Wausau, WI 54401
(715) 359-4522

Marinette

WDNR Forester
Pembine Ranger Station
PO Box 298
Pembine, WI 54156
(715) 324-5227

WDNR Forester
101 N. Ogden Road
PO Box 208
Peshtigo, WI 54157
(715) 582-5000

WDNR Forester
Ranger Station
Hwy C, PO 199
Wausaukee, WI 54177
(715) 856-9157

Marquette

WDNR Forester
363 Church Street
Hwy 22N
Montello, WI 53949
(608) 297-2888

Menominee

WDNR Forester
Ranger Station, Box 670
Keshena, WI 54135
(715) 799-3405

Milwaukee

WDNR Forester
S91 W39091 Hwy. 59
Eagle, WI 53119
(262) 594-6207

Monroe

WDNR Forester
820 Industrial Dr. #2
Sparta, WI 54656
(608) 269-6901

Oconto

WDNR Forester
DNR Industrial Pkwy., Box 96
Oconto Falls, WI 54154
(920) 846-2980

Oneida

WDNR Forester
Ranger Station, Box 576
Rhinelander, WI 54501
(715) 365-2634

Outagamie

WDNR Forester
3369 W. Brewster St.
Appleton, WI 54914
(920) 832-2747

Ozaukee

WDNR Forester
3544 Kettle Moraine Rd.
Hartford, WI 53027
(262) 670-3404

Pepin

WDNR Forester
Pepin County Govt. Center
PO Box 39
Durand, WI 54736
(715) 672-4153

Pierce

WDNR Forester
PO Box 428
Ellsworth, WI 54011
(715) 273-5525

Polk

WDNR Forester
941 Mallard Ln. #104
Balsam Lake, WI 54810
(715) 485-3518

Portage

WDNR Forester
Ranger Station
301 Cedar St. West
Stevens Point, 54481
(715) 344-2752

Price

WDNR Forester
Co. Normal Bldg.
Phillips, WI 54555
(715) 339-3001

Racine

WDNR Forester
9531 Rayne Rd., Suite IV
Sturtevant, WI 53177
(262) 884-2390

Richland

WDNR Forester
1850 Bohman Dr., Ste. D
Richland Center, WI 53581
(608) 647-4566

Rock

WDNR Forester
Janesville Service Center
2514 Morse St
Janesville, WI 53545
(608) 743-4830

Rusk

WDNR Forester
N4103 Hwy. 27
Ladysmith, WI 54848-9309
(715) 532-3737

Saint Croix

WDNR Forester
990 Hillcrest, Suite 104
Baldwin, WI 54002
(715) 684-2914

Sauk
WDNR Forester
W. Square Bldg.
505 Broadway, Rm 202
Baraboo, WI 53913
(608) 355-4475

Sawyer
WDNR Forester
Ranger Station
Rt. 2, Box 2003
Hayward, WI 54843
(715) 634-6504

Shawano
WDNR Forester
647 Lakeland Rd.
Shawano, WI 54166
(715) 526-4229

WDNR Forester
Bowler Ranger Station
PO Box 41
Bowler, WI 54416
(715) 793-4606

Sheboygan
WDNR Forester
PO Box 408
Plymouth, WI 53073
(920) 892-8756

Taylor
WDNR Forester
660 Wheelock St.
Medford, WI 54451
(715) 748-4955

Trempealeau
WDNR Forester
Courthouse
Whitehall, WI 54773
(715) 538-2311 Ext. 271

Vernon
WDNR Forester
220 Airport Rd.
Viroqua, WI 54665
(608) 637-3784

Vilas
WDNR Forester
1861 Hwy 45 N
Eagle River, WI 54521
(715) 479-8870

Walworth
WDNR Forester
9531 Rayne Rd., Suite IV
Sturtevant, WI 53177
(262) 884-2390

Washburn
WDNR Forester
810 W Maple St.
Spooner, WI 54801-1255
(715) 634-4084

Washington
WDNR Forester
3544 Kettle Moraine Rd.
Hartford, WI 53027
(262) 670-3404

Waukesha
WDNR Forester
S91 W39091 Hwy. 59
Eagle, WI 53119
(262) 594-6207

Waupaca
WDNR Forester
N2480 Hartman Creek Rd.
Waupaca, WI 54981
(715) 258-8432

Waushara
WDNR Forester
Ranger Station
Box 400
Wautoma, WI 54982
(920) 787-4686

Winnebago
WDNR Forester
625 East County Road Y, Suite 700
Oshkosh, WI 54901-8131
(920) 424-3056

Wood
WDNR Forester
473 Griffith Ave.
Wisconsin Rapids, WI 54494
(715) 421-7819

Wisconsin Department of Natural Resources

Education Specialists

Statewide Education Coordinators

Deborah Beringer
State Naturalist
Bureau of Parks and Recreation
WDNR, PR/1
101 S. Webster St., PO Box 7921
Madison, WI 53707-7921
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101 S. Webster St., PO Box 7921
Madison, WI 53707-7921
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Sara Burr
Education Coordinator - Air and Waste
Bureau of Communication & Education
WDNR, CE/6
101 S. Webster St., PO Box 7921
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101 S. Webster St., PO Box 7921
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WDNR Research Center
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gilchs@dnr.state.wi.us

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Forestry Issues & Outreach Specialist
Division of Forestry
WDNR, FR/4
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(608) 264-6036
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Hunter Education Administrator
Bureau of Law Enforcement
WDNR
101 S. Webster St., PO Box 7921
Madison, WI 53707-7921
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Environmental Education Specialist, EEK! Manager
Bureau of Communication & Education
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101 S. Webster St., PO Box 7921
Madison, WI 53707-7921
(608) 267-5239
morgac@dnr.state.wi.us

Mary Kay Salwey
State Wildlife Education Specialist
Bureau of Wildlife Management
WDNR, Courthouse
Box 8
Alma, WI 54610
(608) 685-3744
salwem@dnr.state.wi.us

Theresa Stabo
Aquatic Resources Educator
Bureau of Fisheries Management & Habitat Protection
WDNR, FH/3
101 S. Webster St., PO Box 7921
Madison, WI 53707-7921
(608) 266-2272
stabot@dnr.state.wi.us

Al Stenstrup
Education Coordinator - Science & Land, Project WILD, and PLT
Bureau of Communication & Education
WDNR, CE/6
101 S. Webster St., PO Box 7921
Madison, WI 53707-7921
(608) 264-6282
stensa@dnr.state.wi.us

Joel Stone
Education Coordinator - Recycling & Water and *Into the Outdoors* TV Show
Bureau of Communication & Education
WDNR, CE/6
101 S. Webster St., PO Box 7921
Madison, WI 53707-7921
(608) 266-2711
stonejl@dnr.state.wi.us

Regional Educators

Sherry Klosiewski
Northern Region
107 Sutliff Avenue
Rhinelander, WI 54501
(715) 365-8966
klosis@dnr.state.wi.us

Gene Tiser
Northeast Region
1125 N. Military Ave.,PO Box 10448
Green Bay, WI 54307
(920) 492-5836
tiserg@dnr.state.wi.us

Wildlife Educators

Chris Cold
Northern Region
WDNR, Ranger Station
W8945 Hwy 8
Ladysmith, WI 54848
(715) 532-3911
coldc@dnr.state.wi.us

Jim Hoefler
Northern Region
WDNR, Crex Hdqtrs.
Cty Rd. D, PO Box 367
Grantsburg, WI 54840
(715) 463-2896
hoeflj@dnr.state.wi.us

Dick Thiel
West Central Region
WDNR, Sandhill Project
Co. Hwy. X, PO Box 156
Babcock, WI 54413
(715) 884-2437
thielr@dnr.state.wi.us

Bill Volkert
South Central Region
WDNR, Horicon Service Center
N7725 Hwy. 28
Horicon, WI 53032
(920) 387-7877
volkew@dnr.state.wi.us

Naturalists and Educators at Wisconsin State Parks, Forests, and Education Centers

This listing is limited to permanent naturalists. Many State Parks, Trails, and Forests have part time staff during the spring, summer, and fall. Contact one of the individuals below or your nearest state property to find out about other WDNR resource staff in your area.

Dave Bouche
Devil's Lake State Park
S5975 Park Road
Baraboo, WI 53913-9299
(608) 356-8301 (X3115)
bouchd@dnr.state.wi.us

Sheri Buller
Northern Highland-American Legion State Forest
8770 Hwy. J
Woodruff, WI 54568
(715) 358-9206
bulles@dnr.state.wi.us

Beth Goeppinger
Bong Recreation Area
26313 Burlington Road
Kansasville, WI 53139
(262) 878-5607
goeppe@dnr.state.wi.us

Judy Klippel
Havenwoods State Forest
6141 N. Hopkins St.
Milwaukee, WI 53209
(414) 527-0232
klippj@dnr.state.wi.us

Ron Kurowski
Kettle Moraine State Forest - Southern Unit
S91 W39091, Hwy. 59
Eagle, WI 53119-0070
(262) 594-6215
kurowr@dnr.state.wi.us

Julie Fox-Martin
Interstate Park
PO Box 703
St. Croix Falls, WI 54024
(715) 483-3747
foxj@dnr.state.wi.us

Susan McLarty
Havenwoods State Forest
6141 N. Hopkins St.
Milwaukee, WI 53209
(414) 527-0232
mclars@dnr.state.wi.us

Jennifer Punzel
Pattison & Amnicon Falls State Parks
6294 S. State Rd. 35
Superior, WI 54880-8326
(715) 399-3111
punzej@dnr.state.wi.us

Brenda Rederer
Chippewa Moraine State Recreation Area
Box 13394, County Hwy. M
New Auburn, WI 54757
(715) 967-2800
rederb@dnr.state.wi.us

Kathleen Regnier
Peninsula State Park
9462 Shore Road
PO Box 218
Fish Creek, WI 54212
(920) 854-5976
regnik@dnr.state.wi.us

Carolyn Rock
Whitefish Dunes State Park
3701 Clark Lake Road
Sturgeon Bay, WI 54235
(920) 823-2400
rockc@dnr.state.wi.us

Jackie Scharfenberg
Kettle Moraine State Forest - Northern Unit
N1765 Hwy. G
Campbellsport, WI 53010
(920) 533-8322
scharje@dnr.state.wi.us

Sue Schumacher
Kohler Andrae State Park
1020 Beach Park Lane
Sheboygan, WI 53081
(920) 451-4080

Bob Wallen
MacKenzie Environmental Center
W7303 County Hwy. CS
Poynette, WI 53955-9690
(608) 635-8101
waller@dnr.state.wi.us

Bill Worthman
MacKenzie Environmental Center
W7303 County Hwy. CS
Poynette, WI 53955-9690
(608) 635-8105
worthw@dnr.state.wi.us

Naturalist
Aztalan State Park
1213 S. Main
Lake Mills, WI 53551
(920) 648-8774

Naturalist
Wyalusing State Park
13342 County Hwy. C
Bagley, WI 53801
(608) 996-2261

University of Wisconsin – Extension

Basin Educators

University of Wisconsin – Extension provides an office in each county of the state. Each office offers a wide range of services and publications. For your closest Extension office, check the county listings in your local phone book. The following individuals are education specialists in their regions. At the time of printing, the La Crosse–Bad Axe and Black–Buffalo–Trempealeau positions were not filled. For information about these areas, contact the Environmental Resource Center.

Environmental Resource Center

UW-Madison
216C Agricultural Hall
1450 Linden Drive
Madison, WI 53706-1562
(608) 262-1916

Grant–Platte–Sugar–Pecatonica Basin

Peggy Compton
Lancaster Agriculture
Research Station
7396 State Highways 35 & 81
Lancaster, WI 53813-9725
(608) 723-6243
peggy.compton@ces.uwex.edu

Upper Chippewa Basin

Matt Davis
DNR Service Center
N4103 State Highway 27
Ladysmith, WI 54848-9309
(715) 532-6322
matthew.davis@ces.uwex.edu

Central Wisconsin Basin

John DuPlissis
DNR Service Center
473 Griffith St.
Wisconsin Rapids, WI 54494
(715) 421-7870
john.duplissis@ces.uwex.edu

Lower Wisconsin Basin

John Exo
Sauk County UWEX Office
505 Broadway
Baraboo, WI 53913-2404
(608) 355-3554
john.exo@ces.uwex.edu

St. Croix Basin

John Haack
Agriculture Research Station
W6646 Highway 70
Spooner, WI 54801-9468
(715) 635-7406
john.haack@ces.uwex.edu

Headwaters Basin

Bill Klase
DNR Service Center
PO Box 695
107 Sutliff Ave.
Rhinelander, WI 54501
(715) 365-2658
william.klase@ces.uwex.edu

Lake Superior Basin

Mike Kroenke
Northern Great Lakes Visitor Center
29270 County Highway G
Ashland, WI 54806
(715) 685-2674
mike.kroenke@ces.uwex.edu

Lower Chippewa Basin

Darren Lochner
UW-Eau Claire, Phillips Hall,
Room 146
105 Garfield Ave.
Eau Claire, WI 54702
(715) 836-5513
darren.lochner@ces.uwex.edu

Milwaukee and Sheboygan Basins

Gretchen Messer
Southeast Area UW-Extension
640 South 84th St.
Milwaukee, WI 53214-1438
(414) 290-2434
gretchen.messer@ces.uwex.edu

Upper Green Bay Basin

Diane Munroe
DNR Service Center
101 N. Ogden Rd.
Peshtigo, WI 54157
(715) 582-1002
diane.munroe@ces.uwex.edu

Lower Fox, Upper Fox, and Wolf Basins

Catherine Neiswender
Winnebago Co. UW-Extension
625 E. County Y, Suite 600
Oshkosh, WI 54901-9775
(920) 232-1990
catherine.neiswender@ces.uwex.edu

Lake Shore Basin

Patrick Robinson
925 Marquette Dr.
Kewaunee, WI 54216
(920) 388-4313
patrick.robinson@ces.uwex.edu

Upper Rock and Lower Rock Basins

Suzanne Wade
UW-Extension Jefferson County
864 Collins Road
Jefferson, WI 53549
(920) 674-8972
suzanne.wade@ces.uwex.edu

Southeast Wisconsin Fox and Root-Pike Basins

Andy Yencha
Southeast Area UW-Extension
640 South 84th St.
Milwaukee, WI 53214-1438
(414) 290-2431
andrew.yencha@ces.uwex.edu

Other Resource Professionals

Local

County and City Forestry Departments

Check in "government" section of your local phone book.

County and City Parks and Recreation Departments

Check in "government" section of your local phone book

County and City Planning and Zoning Departments

Check in "government" section of your local phone book. County listings are also online.
<www.dnr.state.wi.us/org/water/wm/dsfm/shore/county2.htm>

County Land Conservation Department

Check in "government" section of your local phone book.

Environmental Education Centers, Nature Centers, Museums, etc.

<www.wisconline.com/attractions/naturecenters.html>

Historical Societies

There is a list of over 300 local historical societies at the State Historical Society of Wisconsin website.
<www.shsw.wisc.edu/localhistory/directory/>

Industrial Foresters

<www.dnr.state.wi.us/org/land/forestry/Private/Assist/industfor.htm>

Private Consulting Foresters

<www.dnr.state.wi.us/org/land/forestry/Private/Assist/privfor.htm>

UWEX - Community, Natural Resource and Economic Development (CNRED)

<www1.uwex.edu/ces/cnred>

UWEX – Cooperative Extension

Check the "county government" section of your local phone book.
<www1.uwex.edu/ces/cty>

State

College of Menominee Nation – Sustainable Development Institute

<www.menominee.edu/sdi/forestry.htm>

Resource Conservation and Development Offices in Wisconsin

Lumberjack RC&D Area
518 W. Somo Avenue
Tomahawk, WI 54487
(715) 453-1253
spencb@dnr.state.wi.us
<www.wi.nrcs.usda.gov/RCD/lumberjack/lumber.html>

Glacierland RC&D Area
4319 Expo Drive, Box 578
Manitowoc, WI 54221-0578
920-683-5196
greg.hines@wi.usda.gov

Golden Sands RC&D Area
1462 Strongs Avenue
Stevens Point, WI 54481
715-343-6215
bill.ebert@wi.usda.gov
<www.goldensandsrcd.org >

Pri-Ru-Ta RC&D Area
850 N. 8th Street
Medford, WI 54451
715-748-2008
ken.rismeyer@wi.usda.gov

River Country RC&D Area
1101 W. Clairemont Avenue
Eau Claire, WI 54701
715-834-9672

Southwest Badger RC&D Area
310 E. Main Street
Platteville, WI 53818
608-348-3235
sbertjen@wi.nrcs.usda.gov

State Historical Society of Wisconsin

816 State St.
Madison, WI 53706
(608) 264-6400
<www.shsw.wisc.edu>

University of Wisconsin – Stevens Point Treehaven Field Station

W2540 Pickerel Creek Avenue
Tomahawk, WI 54487
(715) 453-4106
<www.newnorth.net/treehaven/>

Wisconsin Center for Environmental Education

College of Natural Resources
University of Wisconsin - Stevens Point
Stevens Point, WI 54481
(715) 346-4973
<www.uwsp.edu/acad/wcee>

Wisconsin Conservation Corps

30 W. Mifflin, Suite 406
Madison, WI 53703-2558
(608) 266-7730
<www.dwd.state.wi.us/wcc/>

Wisconsin Department of Agriculture, Trade, and Consumer Protection

2811 Agriculture Drive
PO Box 8911
Madison, WI 53708-8911
(608) 224-5012
<http://datcp.state.wi.us/>

Wisconsin Department of Natural Resources

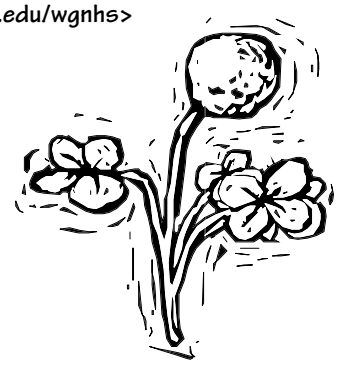
101 S. Webster St.
PO Box 7921
Madison, WI 53707-7921
<www.dnr.state.wi.us>
See page 106 for WDNR service centers.
See page 107 for foresters listed by county.
See page 111 for education specialists.

Wisconsin Department of Public Instruction

125 S. Webster St.
Madison, WI 53707-7841
(800) 441-4563
<www.dpi.state.wi.us/>

Wisconsin Geological and Natural History Survey

3817 Mineral Point Road
Madison, WI 53705-5100
(608) 263-7389
<www.uwex.edu/wgnhs>



Wisconsin State Cartographer's Office
160 Science Hall
550 North Park Street
Madison, WI 53706-1491
(608) 262-3065
<http://feature.geography.wisc.edu/sco/sco.html>

University of Wisconsin – Extension
432 N. Lake Street
Madison, WI 53706
(608) 262-3980
info@uwex.edu
<www1.uwex.edu>
See page 113 for basin educators.

Federal

Bureau of Indian Affairs
Great Lakes Agency
615 West Main Street
Ashland, WI 54806-0273
(715) 682-4527
<www.na.fs.fed.us/spfo/BIA/biagla/index.html>

National Park Service
Midwest Region
1709 Jackson St.
Omaha, NE 68102
(402) 221-3471
<www.nps.gov>

United States Army Corps of Engineers
St. Paul District
190 Fifth Street East
St. Paul, MN 55101-1638
(651) 290-5200
<www.usace.army.mil/>

United States Bureau of Land Management
Office of Public Affairs
1849 C Street, Room 406-LS
Washington, DC 20240
(202) 452-5125
<www.blm.gov/nhp/index.htm>

United States Department of Agriculture
USDA Farm Services Agency
Wisconsin State FSA Office
6515 Watts Road
Madison, WI 53719-2726
(608) 276-8732
<www.fsa.usda.gov/wi/>

USDA Forest Service
Chequamegon National Forest
1170 Fourth Avenue South
Park Falls, WI 54552
(715) 762-2461
<www.fs.fed.us/r9/cnnf>

Nicolet National Forest
68 South Stevens Street
Rhinelander, WI 54501
(715) 362-1300
<www.fs.fed.us/r9/cnnf>

Forest Products Laboratory
1 Gifford Pinchot Drive
Madison, WI 53705-2398
(608) 231-9200
<www.fpl.fs.fed.us>

USDA Natural Resource Conservation Education
Henry S. Reuss Federal Plaza Suite 500
310 West Wisconsin Avenue
Milwaukee, WI 53203
(414) 297-1394
<www.na.fs.fed.us/spfo/ce>

USDA Natural Resources Conservation Service
6515 Watts Road, Suite 200
Madison, WI 53717
(608) 276-USDA
<www.wi.nrcs.usda.gov>

United States Fish and Wildlife Service
Department of the Interior
1849 C Street NW
Washington, DC 20240
<www.fws.gov>

United States Geological Survey
8505 Research Way
Middleton, WI 53562-3581
(608) 821-3801
<www.usgs.gov>

Organizations

The following organizations are dedicated to land conservation or wildlife habitat improvement. They may have local or statewide chapters that can provide you with people power, information, or funding for your school forest projects. Addresses, phone numbers, and email addresses are as accurate as possible.

Bat Conservation International
PO Box 162603
Austin, TX 78716
1-800-538-BATS
<www.batcon.org>

Bluebird Restoration Association of Wisconsin
PO Box 2482
Appleton, WI 54913
<http://community.homeearth.com>

Defenders of Wildlife
National Headquarters
1101 14th Street, NW #1400
Washington, DC 20005
(202) 682-9400
info@defenders.org
<www.defenders.org>

Ducks Unlimited, Inc.
One Waterfowl Way
Memphis, Tennessee 38120
(800) 45DUCKS or (901) 758-3825
<www.ducks.org>

International Crane Foundation
E 11376 Shady Lane Road
PO Box 447
Baraboo, WI 53913
(608) 356-9462
Explorer@savingcranes.org
<www.savingcranes.org>

Izaak Walton League
Wisconsin Division
5316 Forest Circle
Stevens Point, WI 54481
(715) 344-1803
belliker@usa.com
<www.iwla.org>

Lady Bird Johnson Wildflower Center
4801 La Crosse Avenue
Austin, TX 78739
(512) 929-4200
<www.wildflower.org>

Leave No Trace, Inc.
PO Box 997
Boulder, CO 80306
(303) 442-8222
(800) 332-4100
<www.lnt.org>

LoonWatch
Sigurd Olson Environmental Institute
Northland College
Ashland, WI 54806
(715) 682-1220
loonwatch@northland.edu
<www.northland.edu/soei/loonwatch>

National Arbor Day Foundation Tree City USA
100 Arbor Ave
Nebraska City, Nebraska 68410
<www.arborday.org>

National Audubon Society
700 Broadway
New York, NY 10003
(212) 979-3000
<www.audubon.org>

National Association of State Foresters
444 N. Capitol St. NW, Suite 540
Washington, DC 20001
<www.stateforesters.org>

National Gardening Association
1100 Dorset St.
South Burlington, VT 05401
(802) 863-5251
<www.garden.org>

National Wild Turkey Federation
PO Box 530
Edgefield, SC 29824-0530
(800) THE-NWTF
nwtf@nwtf.net
<www.nwtf.org>

The Nature Conservancy
Madison Field Office
633 West Main Street
Madison, WI 53703
(608) 251-8140
<www.tnc.org/states/wisconsin>

North American Butterfly Association
4 Delaware Road
Morristown, NJ 07960
<www.naba.org>

Pheasants Forever
W9947 Ghost Hill Road
Beaver Dam, WI 53916
(920) 927-3579
jgaska@pheasantsforever.org
<www.pheasantsforever.org>

Ruffed Grouse Society
451 McCormick Rd.
Coraopolis, PA 15108
(888) 564-6747
<www.ruffedgrousesociety.org>

Sierra Club
John Muir State Chapter
222 S. Hamilton St., #1
Madison, WI 53703-3201
(608) 256-0565
john.muir.chapter@sierraclub.org
<www.sierraclub.org>

Society of American Foresters
UWSP – Student Chapter
<www.uwsp.edu/stuorg/saf/safhp.htm>
National website
<www.safnet.org>

Timber Producers Association
Log-A-Load for Kids Program
6343 Hwy. 8 West
PO Box 1278
Rhinelander, WI 54501
(715) 282-5828
timberpa@newnorth.net
<www.timberpa.com>

Timber Wolf Alliance
Sigurd Olson Environmental Institute
Northland College
Ashland, WI 54806
(715) 682-1490
twa@northland.edu
<www.northland.edu/soei/twa/>

Timber Wolf Information Network
Waupaca Field Station
E110 Emmons Creek Road
Waupaca, WI 54981
<www.timberwolfinformation.org>

Trees for Tomorrow
Natural Resource Education Center
PO Box 609
Eagle River, WI 54521
(800)TFT-WISC
<www.treesfortomorrow.com>

Trout Unlimited
Wisconsin Council
PO Box 228
Eau Claire, WI 54702-0228
<www.tu.org>
<www.lambcom.net/witu>

Water Action Volunteer Program
Environmental Resources Center
UW-Madison College of Agriculture and Life Sciences
Agriculture Hall, Rm. 216
1450 Linden Drive
Madison, WI 53706-1562
(608) 262-1916
rlshepar@facstaff.wisc.edu
<http://clean-water.uwex.edu/WAV>

Whitetails Unlimited, Inc.
PO Box 720
1715 Rhode Island Street
Sturgeon Bay, WI 54235
(800) 274-5471
<www.whitetailsunlimited.org>

The Wild Ones – Natural Landscapers, Ltd.
PO Box 1274
Appleton, WI 54912-1274
(920) 730-3986, (877) FYI-WILD
<www.for-wild.org>

Wisconsin Association for Environmental Education (WAEE)
233 Nelson Hall
University of Wisconsin - Stevens Point
Stevens Point, WI 54481
(715) 346-2796
<www.uwsp.edu/cnr/waee>

Wisconsin Breeding Bird Atlas
Dept. of Natural and Applied Sciences
University of Wisconsin-Green Bay
Green Bay, WI 54311
(920) 465-2545
wbba@uwgb.edu
<http://wso.uwgb.edu/wbba>

Wisconsin County Forests Association
W7300 Ridge Road
Tomahawk, WI 54487
(715) 453-9125
wcfa@newnorth.net
<www.wisconsincountyforests.com>

Wisconsin Farm Bureau Federation
PO Box 5550, 1212 Deming Way
Madison, WI 53705-0550
(800) 261-FARM
<www.wfbf.com>

Wisconsin Forest Resources Education Alliance
6343 Hwy 8 West
Rhinelander, WI 54501
(888) WFREA-64
wfrea@newnorth.net
<www.wfrea.org>

Wisconsin Herpetology Society
Section of Vertebrate Zoology
Milwaukee Public Museum
800 W. Wells St.
Milwaukee, WI 53233
(414) 278-2766
gsc@mpm.edu
<www.mpm.edu/collect/vertzo/herp/atlas/>

Wisconsin Land and Water Conservation Association Inc.
One Point Place, Suite 101
Madison, WI 53719
(608) 833-1833
<www.execpc.com/~wlwca>

Wisconsin Prairie Enthusiasts
4192 Sleepy Hollow Trail
Boscobel, WI 53805
(608) 375-5271
<www.prairie.pressenter.com>

Wisconsin Society for Ornithology
W330 N8275 West Shore Drive
Hartland, WI 53029-9732
(262) 966-1072
<http://wso.uwgb.edu/wso>

Wisconsin Waterfowl Association
PO Box 180496
Delafield, WI 53018-0496
(800) 524-8460
h2ofowl@powercom.net
<www.wisducks.org>

Wisconsin Wetlands Association
222 S. Hamilton Street, Suite #1
Madison, WI 53703
(608) 250-9971
wetlands@execpc.com
<www.wiscwetlands.org>

Wisconsin Wildlife Federation
242 N. Koeller St.
Oshkosh, WI 54901-4109
(920) 235-9136
<www.execpc.com/~wiwf>

The Wildlife Society
5410 Grosvenor Lane
Bethesda, MD 20814-2197
(301) 897-9770
tws@wildlife.org
<www.wildlife.org>

Wisconsin Woodland Owners Association
PO Box 285
Stevens Point, WI 54481
(715) 346-4798
nbozek@uwsp.edu
<www.geocities.com/RainForest/1704/>

Wisconsin's Trumpeter Swan Recovery Program
WDNR, Bureau of Endangered Resources
PO Box 7921
Madison, WI 53707
<www.dnr.state.wi.us/org/land/er/factsheets/birds/SWAN.htm>

The Xerces Society
4828 SE Hawthorne Blvd.
Portland, OR 97215-3252
(503) 232-6639
xerces@teleport.com
<www.xerces.org>

Finding the Resources You Need – Money, People, and Materials

With a complete master plan in hand, you are in a good position to seek funding for your school forest. Use the plan to show how the forest will benefit the entire community. Show potential donors how their contribution to the project fits into the big picture. Take advantage of the partnerships you have formed to apply for grants. Remember . . . you won't receive funding at all if you don't ask! Ask for all kinds of help: direct monies to fund a special project or provide bus transportation, in-kind donations, and matching funds.

When asking for donations, remember that face-to-face requests are the most time-consuming and the most effective. Next on the scale of effectiveness versus efficiency are personalized letters and follow-up calls or special mailings to a "friends" list. The least effective and most time-efficient ways to solicit donations are special events and direct mailings.

Don't forget to say thank you! Recognize donations of time, materials, and money. Establish a policy for recognition. Individual donor plaques attached to picnic tables and trees can begin to look cluttered. You may decide to recognize all donations on a donor wall in your school or school forest building.

Consider these sources of human, material, and financial resources:

School System

- School district budget line item
- Funding from individual schools' budgets
- PTA/PAC-sponsored events and fundraisers
- Fundraisers such as raffles, rummage sales, auctions, fun runs, vending machines, recycling, and t-shirt, candy, or bake sales
- Funding from companies (e.g., General Mills' Box Tops for Education and Campbell's Soup Labels for Education)
- Endowment programs

Kindling
from Wonewoc Center Outdoor Learning Area

In October, the OLA comes alive with students dressed in costumes. Students organize and put on a haunted hike for the community. John Cler reports that is a great fundraiser as well as a fantastic fun-raiser.

Kindling
from Tomah School Forest

The Tomah Community School superintendent reports that they use gate receipts from athletic events to support their school forest.

School Forest Property

- Timber harvests – logs, chips, and mulch. Work with the school board prior to harvest to ensure funding goes back into the school forest program and not the general fund.
- Non-timber forest product harvests – maple syrup, moss, Christmas trees and wreaths, firewood, or grapevines. Make arrangements for students to be involved in or at least observe these harvests.
- Rental of grounds/buildings – scout jamborees, reunions, meetings, and sports competitions.
- Usage fee for individuals and groups – hunting rights, trail passes, and admission fees.

Kindling

from the Boston School Forest

Sally Ellingboe and the school forest committee sponsor an annual tree sale to raise money for equipment at their school forest. Each year they sell 500 to 800 three-foot white pines that are growing at the forest and need to be thinned. Sixth graders dig up the trees in April. They use the profits to purchase equipment like skis and binoculars.

Kindling

from Osceola Ag Farm

Pumpkins anyone? In addition to growing red pines, the students in Osceola plan to grow strawberries and pumpkins on school forest land. FFA students will plant and care for the crops. Hopefully, their harvest will provide income for the Ag Farm and a great learning experience for the students.

Local Businesses

- Donated services – laminating, printing, advertising, mapping, logging, excavating, landscaping, electrical, plumbing, catering, media coverage
- Donated materials – lumber, hardware, stone, sand, cement, tools, landscape materials, nursery stock, soil, bird seed, woodchips, paper
- Community Cash programs (e.g., Pick 'n Save)

Human Resources – Workforce!

- Students
- Teachers and other school staff members
- Future Farmers of America (FFA) Clubs
- Technical education classes
- Members of any of the organizations listed below under "Local Organizations"
- Families organized into "Work Bees"
- Telephone Pioneers (i.e.,volunteer organization of retired phone company employees)
- RSVP (Retired and Senior Volunteer Program)
- Green Thumb
- Wisconsin Conservation Corps (WCC)
- US Army Reserve
- National Guard
- Master Gardeners from the University of Wisconsin – Extension
- Community service workers

Local Organizations

- Youth organizations (e.g., 4-H, Boy Scouts, Girl Scouts, YWCA, YMCA, Pioneers, Boys and Girls Clubs, day care centers, after school clubs, church youth groups)
- Civic groups (Look under "clubs" in your local yellow pages for groups such as Elks, Jaycees, Kiwanis, Lions, and Rotary.)
- Garden clubs
- State or national organizations dedicated to land conservation or wildlife habitat improvement that may have local chapters or representatives (See the listing on pages 117 - 119 in the Appendix for contact information.)
- Neighborhood associations or religious organizations (e.g., Aid Association for Lutherans)

Area Educational Institutions

- Colleges and universities
- Technical schools
- Nature centers, environmental education centers, and museums
- Neighboring public and private schools that do not have a school forest of their own

Local Government

- County and city forestry departments
- County and city parks and recreation departments
- County and city planning and zoning departments
- City councils

Other Government Sources

- Wisconsin Department of Natural Resources
- University of Wisconsin – Extension
- Wisconsin Department of Public Instruction
- Wisconsin Department of Transportation
- United States Department of Agriculture – Forest Service
- United States Fish and Wildlife Service
- Soil and Water Conservation District
- Natural Resources Conservation Service
- Bureau of Land Management
- National Park Service
- United States Army Corps of Engineers
- National Guard or Army Reserve

Cost-sharing Programs for Habitat Restoration

The state and federal governments offer a number of programs to landowners interested in restoring or establishing habitat on their properties. Each program has its own qualifications, restrictions, and deadlines for application. If you are interested in applying for cost-sharing programs, you should contact your local WDNR Forester and/or Natural Resources Conservation Service specialist. Find out about the details of the programs to see if your school forest qualifies. Be sure you share the history and resources of your school forest, since some programs are only available to landowners with stream buffers, abandoned cropland, and/or drained wetlands. Some possible programs include:

- Forestry Incentives Program (FIP)
- Wisconsin Forest Landowner Grant Program
- Conservation Reserve Program (CRP)
- Wildlife Habitat Incentives Program (WHIP)
- Wetland Reserve Program

Forest Industry

The forest industry might be able to fund special projects; provide materials such as lumber for bridges, buildings, picnic tables, benches, signs, or boardwalks; or donate equipment and skilled operators to harvest or plant trees, develop trails, or clear areas for construction.

- Wisconsin Paper Council
- Wisconsin Timber Producers Association
- Lake States Lumber Association
- Lake States Resource Alliance
- Great Lakes Kiln Drying Association
- Wisconsin Professional Loggers' Council

Individuals

- Parents and grandparents of students
- Retired teachers and support staff
- Alumni
- Contributors of memorials to the school forest
- Retired craftspeople such as carpenters, architects, plumbers, electricians who donate expertise or supervise student workers
- Naturalists or birdwatchers who inventory the site
- Loggers, farmers, electricians, plumbers, contractors, builders, masons, landscapers, excavators, caterers, printers, designers! Try to ensure that volunteers are willing to work with students. That will help increase the educational value of every aspect of growth in your school forest.

Tap into Grants

Most foundations won't approach you. You will have to find them. Here are some resources for finding out about and applying for grants.

EE Link

Check out this environmental education site with information about available grants and tips on how to apply for them.
<http://eelink.net>

Environmental Grantmaking Foundations Directory

PO Box 22770
Rochester, NY 14692-2770
(800) 724-1874

The Foundation Center

79 Fifth Avenue
New York, NY 10003
(212) 620-4230
<www.fdncenter.org>

Grants for Teachers: A Guide to Federal and Private Fundraising

Capital Publishing
PO Box 1453
Alexandria, VA 22313

Local Grant Programs

Check with local service organizations and conservation clubs for special project funding. See lists of potential sources under Organizations on page 117 - 119 of this Appendix. Several nationwide discount chains have grant programs for schools and community organizations. Ask your local Wal-Mart, Home Depot or other retail store! For example, Target and the National Wildlife Federation sponsor Earthsaver clubs around the country. Check out their website for more information: <www.nwf.org/earthsavers>.

Wisconsin Grant Programs

C.D. Besadny Conservation Grants. Fund your small-scale, grassroots conservation project! Grants of up to $1,000 are awarded to schools, organizations, individuals, and government agencies for projects involving education, restoration, research, and management of Wisconsin's natural resources. Contact: Natural Resources Foundation of Wisconsin, (608) 266-1430, <www.nrfwis.org>.

Forest Stewardship Grants. Do you have a forest stewardship project you would like to undertake? Projects can include: training natural resource professionals, landowners, youth, or loggers; developing training materials, educational resources, or programs; providing technical assistance to landowners; and completing forestry demonstration projects. These grants require a dollar for dollar match. Contact: Forest Stewardship Coordinator, WDNR, 101 S. Webster St., PO Box 7921, Madison, WI 53707-7921.

Urban Forestry Assistance Grants. These grants are administered through the WDNR's Urban Forestry Program. They fund projects that improve a community's capacity to manage its trees. The applicant may be a city, village, town, county, tribal government, or not-for-profit organization. Joint applications are encouraged. Grants range from $1,000 to $25,000. Contact: <www.dnr.state.wi.us/org/land/forestry/uf/grants>.

WEEB Grants. The Wisconsin Environmental Education Board (WEEB) awards grants for the development, dissemination, and implementation of environmental education programs. Awards are available for small grants requesting up to $5,000 and for large grants requesting $5,001-$20,000. Contact: WEEB, Wisconsin Center for Environmental Education, College of Natural Resources, University of Wisconsin - Stevens Point, Stevens Point, WI 54481,(715) 346-3805, <www.uwsp.edu/cnr/weeb>.

Wild Ones – Natural Landscapers. The Lorrie Otto Seeds for Education Fund of the Milwaukee Foundation gives small monetary grants to schools whose efforts best reflect the message of creating natural landscapes using native plants and appreciating humankind's proper place in the web of life. Contact: Lorrie Otto Seeds for Education, PO Box 23576, Milwaukee, WI 53223-0576, <www.for-wild.org>.

National Grant Programs

America the Beautiful Fund. Receive free seeds for the cost of shipping and handling ($12/100 packs). Contact: ABF, 1511 K Street NW Suite 611, Washington D.C. 20005, (202) 638-1649.

Sea World/Busch Gardens Environmental Excellence Awards. Because this is an awards program, applicants must be able to demonstrate significant accomplishments by the time of their application. Each year, eight schools are chosen. Contact: Sea World, Education Department, 7007 Sea World Drive, Orlando, FL 32821, (877) 792-4332, <www.seaworld.org/EEAwards/eea01.htm>.

The Center for Environmental Education. The "Make Your World Better" Grant Program grants $1000 - $5000 to initiate environmental education projects. CEE encourages multi-disciplinary projects that involve teachers working collaboratively and projects which focus on the local school, community, and ecosystem. Contact: CEE, Antioch New England Graduate School, 40 Avon Street, Keene, NH 03431 (603) 357-3122, <www.cee-ane.org>.

Chevron Corporation. Chevron awards grants for environmental and educational programs in an effort to make a difference in local communities. Contact: Grants Administrator, 575 Market Street, San Francisco, CA 94105, (415) 894-7700, <www.chevron.com/community/>.

Cottonwood Foundation. This foundation is interested primarily in funding programs that make a difference for local community empowerment. Contact: Cottonwood Foundation, 10803 White Bear Lake, MN 55110, <www.pressenter.com/~cottonwd>.

Environmental Protection Agency. Contact the EPA for a federal registry of environmental education grant recipients as well as grant project outlines, grant specifications, and deadlines. Grants of up to $25,000 are available. Contact: U.S. EPA, Region V, Environmental Education Grants, Grants Management Section (MC-10J), 77 West Jackson Boulevard, Chicago, IL 60604, (312) 353-5282,<www.epa.gov/enviroed/grants.html>.

Eisenhower Math and Science Funds. Check with your school district to see if these funds are available for teacher inservices.

GreenWorks! GreenWorks is a Project Learning Tree environmental community action program. It encourages students to participate in community-based partnerships by developing and implementing environmental action projects, such as graffiti paint-overs, tree plantings, stream clean-ups, and recycling projects. Contact: National PLT, (202) 463-2462, <www.plt.org/html/plt_in_action/greenworks.html>.

The Jordan's Fundamentals Grants Program. Four hundred $2500 grants are awarded to educators to recognize excellent teaching in secondary schools which serve economically disadvantaged students. Contact: National Foundation for the Improvement of Education, 1201 16th Street NW, Washington, D.C. 20036, <www.nfie.org/programs/jordan.htm>.

The Joyce Foundation. This midwest-based foundation supports projects that promise broad, systemic change. Contact: Joyce Foundation, Three First National Plaza, 70 W. Madison Street, Suite 2750 Chicago, IL 60602, (312)782-2464, <www.joycefdn.org/programs/envir/envirofs.html>.

National Environmental Education and Training Foundation. NEETF awards one-year challenge grants requiring a cash match of at least one non-federal dollar for each NEETF dollar awarded. Grants range from $5,000 to $40,000. Contact: NEETF, 1707 H Street NW, Suite 900, Washington D. C. 20006, (202) 261-6478, <www.neetf.org>.

National Gardening Association. Four hundred grants consisting of gardening tools and useful gardening products (valued at $750) are awarded each year. Contact: NGA, Youth Garden Grants Program, 1100 Dorset Street, South Burlington, VT 05403, (800) 538-7476, <www.kidsgardening.com/grants.asp/>.

National Science Foundation. This government agency distributes funds for science education programs. Contact: NSF, 4201 Wilson Boulevard, Arlington, VA 22230, (703) 292-5111, <www.nsf.gov>.

National Tree Trust. The Community Tree Planting Program (CTP) facilitates tree planting on public lands. Receive seedlings, containers, and a cash subsidy to underwrite the cost of potting medium. Contact: CTP, 1120 G Street NW, Suite 770, Washington, DC 20005, (800) 846-8733, <www.nationaltreetrust.org/CTP.htm>.

Phillips Petroleum Environmental Partnership Awards (PEP). Contact: Center for Environmental Education, College of Education, Oklahoma State University, 304 Willard Hall, Stillwater, OK 74078.

Toyota TAPESTRY Grants for Teachers. Fifty one-year grants totaling up to $500,000 are awarded each year for innovative projects that enhance science education in the school and/or school district. Contact: TAPESTRY, National Science Teachers Association, 1840 Wilson Boulevard, Arlington, VA 22201, <www.nsta.org/programs/tapestry/>.

W.K. Kellogg Foundation. This non-profit organization awards educational grants in community-based service learning. Contact: Kellogg Foundation, One Michigan Avenue East, Battle Creek, MI 49017-4058, (616) 968-1611, <www.wkkf.org>.

Weyerhaeuser Grants. This foundation focuses most of its giving in the communities — many rural — where Weyerhaeuser has a major presence and employs a significant number of people. Their priorities include education and programs that promote awareness about responsible natural-resource management. Contact: Weyerhaeuser Company Foundation, CH1 K35C, PO Box 9777, Federal Way WA 98063-9777, (253) 924-2345, <www.weyerhaeuser.com/community/foundation>.

Youth As Resources Grants. YAR is a community-based program that provides small grants to young people to design and carry out service projects that address social problems and contribute to significant community change. Contact: Center for Youth as Resources Headquarters, 1000 Connecticut Ave, NW, 13th Floor, Washington, DC 20036, (202) 261-4131, yar@ncpc.org,<http://yar.org>.

Wisconsin Department of Natural Resources

Tree and Shrub Application

Registered school forests qualify for free tree seedlings from WDNR nurseries. A copy of part of the Spring 2001 application is provided for your information. To receive the complete application along with information about deadlines and tree species availability, contact your local forester or log on to <www.dnr.state.wi.us>.

State of Wisconsin
Department of Natural Resources
Division of Forestry

Spring 2001
Tree and Shrub Application
Form 2420-031 Rev. 8/00

LEAVE BLANK - DNR USE ONLY	
Order Number	Nursery

Please read instructions on page 1 before completing this application.

IMPORTANT: THIS SECTION MUST BE COMPLETELY FILLED OUT OR ORDER WILL BE RETURNED

Applicant's Last Name, First (Please print)

Street or Route

City | State | ZIP Code

Daytime Phone No. (include area code) | Evening Phone No. (include area code)

Preferred Method of Delivery: (Select one)
- ☐ Ship By _____ County Truck (Check Page 4 to see if your county provides this service.)
- ☐ I will pick up on _____ (date between 4/1 and 5/15) at: (Select one)
  - ☐ Griffith Nursery in Wis. Rapids
  - ☐ Hayward Nursery in Hayward
  - ☐ Wilson Nursery in Boscobel

This Stock Shall be Planted In:

County | Section | Township | Range

Select one:

PAID ORDER: See instructions 8 and 9, Page 1
1. ☐ Private Order (100% remittance attached)
2. ☐ Private Order (25% down payment attached)
3. ☐ Conservation Reserve - CP3
4. ☐ Conservation Reserve - other than CP3 (100% remittance attached)
5. ☐ Conservation Reserve - other than CP3 (25% down payment attached)
6. ☐ County Forest
7. ☐ VO-Ag., FFA, 4-H and Youth Groups
8. ☐ Other State Agency or Federal

FREE ORDER: Order prior to January 15
1. ☐ Registered School Forest or Community Forest
2. ☐ DNR Lands (Fish, Wildlife, Parks)
3. ☐ University of Wisconsin (Research)
4. ☐ State Forest

Species or Packet - First Choice (see instruction 3, page 1)	Species - 2nd Choice (see instruction 5, page 1)	Seedling Age	Quantity (minimum total order: 1000 seedlings in increments of 100)	Total $
Leave Blank - DNR Use Only		SUB-TOTAL		
		ADD 5% SALES TAX See instruction 7, page 1		
		If exempt from sales tax, provide ES # or Farmers Certificate		
		TOTAL See instructions 8 and 9, page 1		

AGREEMENT - PLEASE READ CAREFULLY

As applicant I agree:

1. Not to sell or give away this stock; I'm aware that violation of this clause is punishable by a forfeiture of not more than $100.00 as provided in s. 28. Wis. Stats.
2. That this stock will not be used for decorative, ornamental, landscaping purposes or Christmas trees and am aware that violation of this clause is punishable by a forfeiture of not more than $500.00 as provided in s. 28.06, Wis. Stats.
3. Not to harvest or remove trees after planting until they are large enough to be sold or utilized as cut merchantable forest products, or as an approved precommercial thinning. No trees may be removed from a plantation with roots attached for resale.
4. To protect the area planted from fire and grazing.
5. That a claim for adjustment regarding shortages or quality of stock must be made within ten days of delivery with the local DNR forester.
6. That cancellation of an order after March 1 will be at the discretion of the seller.
7. That I am responsible for payment at the rates established by the Department.
8. To comply with all the rules and statutes applicable to the obtaining, use, and disposition of this forestry stock.

☐ Withhold personal identifiers collected on this form from disclosure on any list of 10 or more individuals that the DNR is requested to provide to another person [s. 23.45, Wis. Stats.]. Effective date: November 1, 2000.

Signature of Applicant | Date Signed

State of Wisconsin
Department of Natural Resources

APPLICATION FOR REGISTRATION OF A COMMUNITY FOREST
Form 2400-88 Rev. 4-90

Name of Property	
Street or Route	Name of Person to Contact
City, State, Zip Code	Telephone Number (Include Area Code)
In what name is title to property recorded?	
If owner is not a governmental unit, do articles of incorporation authorize the ownership of property?	☐ Yes ☐ No
Date Property Officially Designated by Municipality for Forest Purposes	

PROPERTY DESCRIPTION

County		Legal Description 1/4-1/4____ Section____ Town____ Range____
Total Acreage	Wooded Acreage	Acreage Requiring Reforestation
Is there a forest management plan for the property?		☐ Yes ☐ No
When was plan prepared or last revision?		

The undersigned hereby apply for registration of their community forest with the Department of Natural Resources.

Signature of Applicant	Signature of Applicant
Title	Title
Date Signed	Date Signed

DO NOT WRITE BELOW THIS LINE - DNR USE ONLY

FORESTER'S REPORT

Percent Nonproductive Forest	Acceptance Recommended? ☐ Yes ☐ No

Supplemental Information

	Signature of Forester	Date Signed
DNR DIVISION OF FORESTRY		
☐ Approved ☐ Rejected	By	Date Signed
UW-EXTENSION FORESTER		
☐ Approved ☐ Rejected	By	Date Signed

General Information Concerning the School and Community Forest Law (Section 28.20. Wis. Stats.)

The School and Community Forest Law, enacted in 1947, allows schools, villages, cities, and towns to own land and practice forestry. The original intent of the Law was to demonstrate the economic advantages of managing timber and to allow municipalities to receive an income from these lands.

Over the years, forestry and forestry education have changed. Lands entered under the Law provide an excellent opportunity to demonstrate not only the economics of forestry, but also the overall concepts of forest management and land stewardship.

Who is eligible to apply? Any city, village, town, or school district.

What is permitted under the Law? Allows municipalities to acquire land, engage in forestry, and appropriate funds for this purpose.

What are the benefits? Upon registration with the Department of Natural Resources, the municipality is eligible (1) for free trees from the state forest nurseries and (2) technical assistance by Department foresters in carrying out tree planting and forest management plans.

What types of timber sales are allowed? No trees may be cut unless they are marked or designated for cutting by a state forester. All sales must be based on the scale, measure, or count of products, and sales over $250 in value must be by public notice (class 2) and public sale. Income is paid into the municipality's treasury and may be used for any legal purpose. Products from the forest may be used for improvement of the public lands or other public use.

What is the application process? Submit a completed application to the WDNR forester in your county or the WDNR in Madison. Application forms and information are available from the UW-Extension forester, any WDNR office or County Extension Office. Assistance in completing the application is available from the WDNR forester serving the county in which the lands are located.

What happens after the application is filed? The application is reviewed by the WDNR forester for eligibility. Applications that do not meet the requirements will be returned with an explanation. Applications that appear to meet the spirit of the Law and the minimum criteria will be processed for entry.

The WDNR forester will meet with the manager of the land to discuss the municipality's program for management. The forester will look at the land and prepare a report and map of the vegetation and condition of the land. Forester assistance is also available in the preparation of the forest management plan for the property.

The forester sends the completed report and map, along with a recommendation for entry or rejection, to the UW-Extension forester, who, with the assistance of the DNR Forest Resource Educator, will make a final decision on acceptance.

Acceptance is based on the requirement of the Law and the established criteria for entry.

What are the criteria for entry?

1. The lands must be under the control of the municipality through deed, lease, or contract.
2. Lands should normally be a minimum of ten contiguous acres dedicated to forestry and be at least an average width of 120 feet.
3. Eighty percent of the lands should be stocked with productive forest types (20% of the area may be in marsh, swamp, brush open field, roads, water, etc.).

   Exception: Areas not meeting the 80% stocking requirement may be conditionally entered if there is a written plan to meet the requirement by planting trees. At the end of one year, the owner must have shown substantial progress toward meeting the stocking requirement for the land to be continued under the program.
4. The owner must indicate the intention of the municipality to maintain the lands to demonstrate good forest and land management. A management plan must be completed in cooperation with (or approved by) the WDNR forester within one year of the approval date.

For more information, contact your local WDNR Forester or Extension office, or:

Extension Forester
University of Wisconsin
126 Russell Labs
1630 Linden Drive
Madison, WI 53706
(608) 263-0134

Forest Resource Education and Awareness Specialist
Division of Forestry
Wisconsin Department of Natural Resources
PO Box 7921
Madison, WI 53707
(608) 267-3120

General Resources for Enhancing School Grounds

Homes for Wildlife: A Planning Guide for Habitat Enhancement on School Grounds by Marilyn Wyzga (New Hampshire Fish and Game Department, 1995). Students design and carry out plans for improving wildlife habitat, mapping the area, developing and implementing a plan, and following the changes that ensue. Grades K – 6.

Greening School Grounds: Creating Habitats for Learning published by Green Teacher, 2001. Schoolyard "greening" is an excellent way to promote hands-on, interdisciplinary learning through projects that benefit schools and increase green space and biodiversity in communities. In this new anthology from *Green Teacher* magazine, readers will find step-by-step instructions for numerous schoolyard projects, from tree nurseries to school composting to native-plant gardens, along with ideas for enhancing learning by addressing the diverse needs of students. Contact: Green Teacher, Box 1431, Lewiston, NY 14092, <www.web.net/~greentea/>. Grades K – 12.

Guidelines and Features for Outdoor Classrooms published by Indiana Department of Natural Resources, Division of Forestry, 1992. Over 50 school site features are described and correlated to PLT and WILD activities. In addition, about 20 sample plans for school sites are included. Available from IDNR, 402 W. Washington, Room 296, Indianapolis, IN 46204, (317) 232-4105, <www.state.in.us/dnr/forestry/index.html>.

Habitat 2000 published by the Canadian Wildlife Federation. This series of packages is similar to National Wildlife Federation's Wildlife Week Kits. Contact: Canadian Wildlife Federation, 350 Michael Cowpland Drive, Kanata, Ontario K2M 2W1, (800) 563-WILD, info@cwf-fcf.org, <www.wildeducation.org/program/hab2000.htm>.

Habitats for Learning: A Planning Guide for Using and Developing School Land Labs published by Ohio Environmental Education Fund, 1995. This manual encourages teachers to use the land that is already available outside their schools. It promotes enhancement as you go along and development only as needed! Available from ODNR, 1894 Fountain Square Court, Columbus, OH 43224-1360, (614) 265-6878.

The Outdoor Classroom: Educational Use, Landscape Design, and Management of School Grounds by B. Billimore, J. Brooke, R. Booth, and K. Funnell, 1990. This design manual provides information and ideas on how to develop school grounds for use in all curriculum areas. Different sections outline design criteria for school ground features and their qualities, with case studies and ideas for site planning, budgeting and construction, and for planning the management and maintenance of the school grounds. Grades K - 12.

School Nature Area Project sponsored by St. Olaf College. This website contains back issues of newsletters, extensive links, and great resource lists. Log on to <www.stolaf.edu/other/snap>.

Schoolyard Habitat Planning Guide published by the National Wildlife Federation. A guide for planning and implementing habitat improvement projects. It includes information on how to conduct an inventory, design curriculum, and carry out habitat projects. Available online <www.nwf.org/habitats/schoolyard/help.cfm>.

Special Places: Special People; The Hidden Curriculum of School Grounds by Wendy Titman, 1994. This working manual will assist schools and communities in the management of schools and their grounds. The document is divided into four sections: Section One outlines the background of the research project with a short review of previous research; Section Two presents research gathered about children's perceptions, together with a summary of the main findings; Section Three discusses the key issues that arose and what major implications they will have for all schools, along with suggestions for changing how school grounds are designed and used; Section Four contains an alphabetical list of references and other resources. Grades K - 8.

Using School Grounds as an Educational Resource by Kirsty Young, 1990. This booklet provides ideas on ways to develop and use school grounds within the daily curriculum. It is divided into two sections. *Case Studies* look at sites in the U.K. that illustrate some of the most imaginative work taking place in school grounds. *Action Plan* provides six stages for changing school grounds: thinking, surveying, planning changes, consultation, costs, and doing it! Grades K - 12.

WILD School Sites: A Guide to Preparing for Habitat Improvement Projects on School Grounds by Paul Schiff and Dr. Cindi Smith-Walters (Western Regional Environmental Education Council, 1993). This publication offers a rationale for taking action on the school site, a discussion of basic wildlife principles, and an outline of the steps in the process.

Environmental Education Curriculum and Activity Guides

Beyond the Classroom: Exploration of Schoolyard and Backyard by Charles E. Roth, Cleti Cervoni, Thomas Wellnitz, and Elizabeth Arms (Massachusetts Audubon Society, 1991). Try some science activities that require a minimal investment of time and equipment. Available from The Audubon Shop, c/o Massachusetts Audubon Society, 208 South Great Road, Lincoln, MA 01773, (800) AUDUBON, <www.massaudubon.org/>. Grades K – 8.

Earthchild 2000:Games, Stories, and Activities for Young Children by K. Sheehan, and M. Waider (Council Oak Books, 2000). Fun games, engaging stories, creative experiments, and ideas provide open-ended environmental education exercises for children ages 3 to 10.

Eco-Inquiry: A Guide to Ecological Learning Experiences for the Upper Elementary and Middle Grades by Kathleen Hogan (Kendall-Hunt, 1994). Three in-depth modules allow students to investigate ecological processes within their local environment. This resource provides authentic assessment tools and emphasizes cooperative learning. Grades 5 – 8.

Forest Management Lessons: Grades 9-12 developed by the Grand Rapids School Forest Stewardship and Demonstration Center, 1998. While this resource was developed for Minnesota teachers to use at their school forests, much of it transfers easily to Wisconsin. Lessons include Forest History, Tree Identification, Forest Measurements, Cultural Practices, Wildlife, and Forest Protection. Contact: MDNR, 500 Lafayette Rd., St. Paul, MN 55155. Grades 9 – 12.

Gypsy Moth Classroom Activities produced by US Forest Service, DNR and UW-River Falls, 1999. This website features classroom activities, a PowerPoint presentation, clip art, links, and considerable background information. Contact: <www.uwrf.edu/ag-education/resource/>.

Hands-on Nature: Information and Activities for Exploring the Environment with Children edited by Jenepher Lingelbach (Vermont Institute of Natural Science, 1986). This resource is packed with background information, activity ideas, and references for further study. Grades K – 6.

Homes for Wildlife: A Planning Guide for Habitat Enhancement on School Grounds by Marilyn Wyzga (New Hampshire Fish & Game Department, 1995). Students design and carry out plans for improving wildlife habitat, mapping the area, developing and implementing a plan, and following the changes that ensue. Grades K – 6.

Hug a Tree and Other Things to Do Outdoors with Young Children by Robert Rockwell, Elizabeth Sherwood and Robert Williams (Gryphon House, Inc., 1983). Uses the natural environment to explore concepts in science, math, and language. Preschool - Kindergarten.

Lessons in a Land Ethic: Teacher's Guide with Student Activities for Indoor and Outdoor Use published by The Leopold Education Project, 1991. Contact Pheasants Forever for information about attending a workshop and receiving this curriculum guide. Find your local chapter by visiting the national Pheasants Forever website (www.pheasantsforever.org). Also check out the Leopold Education Project website (www.lep.org). Grades 6 - 12.

Material World: A Global Family Portrait by Peter Menzel (Sierra Club Books, 1994). This resource book provides an intimate look into the everyday lives of typical families from around the world. It is also available as an interactive CD-ROM.

Nature with Children of All Ages by Edith Sisson (Prentice Hall, 1982). Fourteen chapters of activities and adventures encourage teachers and students to explore, learn, and enjoy the natural world. All ages!

NatureScope Series produced by the National Wildlife Federation, 1985. These multidisciplinary guides feature good background information, hands-on activities, and "copycat" pages. Check out these individual guides: *Trees Are Terrific; Wading into Wetlands; Birds, Birds, Birds; Endangered Species: Wild and Rare; Incredible Insects; Amazing Mammals (I & II);* and *Let's Hear It for Herps.* They are available through Acorn Naturalists, (800) 422-8886, <www.acornnaturalists.com>. Preschool - grade 7.

Naturewatch: Exploring Nature with Your Children by Adrienne Katz (Addison-Wesley Publishing Company, Inc., 1986). This book offers over 50 projects that encourage exploration and discovery in the out-of-doors.

One Bird - Two Habitats: A Middle School Environmental Education Curriculum on Migratory Birds produced by the Wisconsin Department of Natural Resources, 1994. This interdisciplinary curriculum unit focuses on the interconnectedness of birds, forests, and people in Nicaragua and Wisconsin. It is available only through workshops. Contact the State Coordinator at WDNR, Communications and Education, PO Box 7921, Madison, WI 53707, (608) 264-6282. Grades 6 - 8.

Paper Makes Wisconsin Great! produced by the Wisconsin Paper Council, 1998. This multimedia educational program explains the papermaking process, highlights the socio-economic contributions and history of the industry, and demonstrates the industry's commitment to environmental stewardship. Contact: Wisconsin Paper Council, PO Box 718, Neenah, WI 54957-0718, (920) 722-1500, <www.wipapercouncil.org>. Grades 4 - 5.

ParkPacks produced by the Wisconsin Department of Natural Resources - Bureau of Parks and Recreation, 1999. ParkPacks were developed through a grant from the Wisconsin Environmental Education Board. They focus on sustainable forestry and include engaging activity cards, books, and other materials. Contact: Chief Naturalist, WDNR, PO Box 7921, Madison, WI 53707, (608) 267-9351. Grades 6 - 8.

Prairie Restoration for Wisconsin Schools by Molly Fifield Murray (University of Wisconsin – Madison Arboretum, 1993). Education through ecological restoration is the theme of this curriculum. It features a guide to prairie ecosystems plus dozens of interdisciplinary, open-ended activities for grades K-12. Contact the University of Wisconsin – Madison Arboretum, 1207 Seminole Highway, Madison, WI 53711.

Project Learning Tree published by the American Forest Foundation, 1994. The PLT guide is a set of action-oriented activities that uses the forest as a "window" into natural and built environments. The guides can be obtained by attending PLT workshops. Contact: Wisconsin PLT, WDNR, PO Box 7921, Madison, WI 53707, (608) 264-6280, <www.dnr.state.wi.us/org/caer/ce/pltwild>. Grades K - 8.

Project Seasons by Deborah Parrella (Shelburne Farms, 1995). Follow the school year seasons with thematic activities that reflect changes on the farm and in the natural world.

Project WET published by The Watercourse and the Council for Environmental Education, 1995. Project WET is an interdisciplinary, supplementary environmental education program dealing with water resources and the issues surrounding these resources. Materials are only available through a workshop. Contact: State WET Coordinator, College of Natural Resources, UW-Stevens Point, Stevens Point WI 54481, (715) 346-3366. Grades K - 12.

Project WILD published by the Western Regional Environmental Education Council, 1992. Project WILD is an interdisciplinary, supplementary conservation and environmental education program emphasizing wildlife. Contact: Wisconsin Project WILD, WDNR, PO Box 7921, Madison, WI 53707, (608) 264-6280, <www.dnr.state.wi.us/org/caer/ce/pltwild/>. Grades K – 12.

Sustainable Forestry: Commitment to the Future produced by the Wisconsin Department of Natural Resources, 1996. This packet is no longer being produced, however you might be able to borrow one from your local forester, or contact Havenwoods State Forest (414) 527-0232. Grades 6 - 12.

Taking Action: An Educator's Guide to Involving Students in Environmental Action Projects produced by Project WILD and the World Wildlife Fund, 1995. This resource was compiled to inspire and to provide models for conducting effective environmental projects. Contact: Wisconsin Project WILD, WDNR, PO Box 7921, Madison, WI 53707, (608) 264-6280, <www.dnr.state.wi.us/org/caer/ce/pltwild/>.

Wisconsin Forests Forever CD-ROM and Teachers' Guide produced by Wisconsin Forest Resources Education Alliance, 2000. This interactive CD-ROM focuses on sustainable forestry in Wisconsin. The activities in the teachers' guide supplement the CD and are correlated with Wisconsin's Model Academic Standards. Contact: WFREA, (888) WFREA-64, <www.wfrea.org>. Grades 4 - 6.

Wisconsin's Millennium Tree: Sustainable Forestry Activities for Elementary School Students produced by Department of Public Instruction, Wisconsin Department of Natural Resources, USDA Forest Service, and several other agencies, 1999. The complete activity guide can be downloaded from WDNR's EEK! website <www.dnr.state.wi.us/org/caer/ce/eek>. Grade 4.

WOW! The Wonders of Wetlands: An Educator's Guide by A.S. Kesselheim, B.K. Slattery, S.H. Higgins, and M.R. Schilling (Environmental Concern, Inc., and The Watercourse, 1995). This is a comprehensive guide to teaching about wetlands. It includes background information on wetlands and their role in our world, followed by wetland-related activities for the field and classroom.

Teaching Supplies

You can buy everything from tree measuring equipment to puppets from these suppliers! This is only a sampling! For a more complete listing, see the National Science Teachers Association Guide to Science Education Suppliers. You can purchase a copy by calling (800) 722-NSTA.

Acorn Naturalists
17300 East 17th Street
Tustin, CA 92780
(800) 422-8886
<www.acornnaturalists.com>

Ben Meadows Company
PO Box 20200
Canton, GA 30114
(800) 241-6401
<www.benmeadows.com>

Carolina Biological Supply
2700 York Rd.
Burlington, NC 27215
(800) 334-5551
<www.carolina.com>

Connecticut Valley Biological Supply Co., Inc.
82 Valley Rd.
PO Box 326
Southampton, MA 01073
(800) 628-7748

Davis Instruments
3465 Diablo Ave.
Hayward, CA 94945
(800) 678-3669
<www.davisnet.com>

Delta Education
PO Box 3000
80 Northwest Blvd.
Nashua, NH 03061
(800) 258-1302
<www.delta-education.com>

Fisher Science Education
Educational Materials Division
485 S. Frontage Rd.
Burr Ridge, IL 60521
(800) 955-1177
<www.fisheredu.com>

Forestry Suppliers
PO Box 8397
Jackson, MS 39284-8397
(800) 752-8460
<www.forestry-suppliers.com>

Global Rivers Environmental Education Network
1908 Mt. Vernon Ave., 2nd Floor
Alexandria, VA 22301
(703) 299-9400
<www.earthforce.org>

The Green Brick Road
429 Danforth Ave., Suite 408
Toronto, Ontario M4K 1P1
Canada
(800) GREEN-38
<www.gbr.org>

Hach Co.
PO Box 389
Loveland, CO 80539
(800) 227-4224
<www.hach.com/h2OU>

Insect Lore
PO Box 1535
Shafter, CA 93263
(800) LIVE BUG
<www.insectlore.com>

International Reforestation Suppliers
2100 W. Broadway
Eugene, OR 97402
(800) 321-1037
<http://members.net-tech.com.au/irs>

LaMotte Co.
PO Box 329
802 Washington Ave.
Chestertown, MD 21620
(800) 344-3100
<www.lamotte.com>

Let's Get Growing
1900 Commercial Way
Santa Cruz, CA 95065
(800) 408-1868
<www.letsgetgrowing.com>

Museum Products Co.
84 Route 27
Mystic, CT 06355
(800) 395-5400
<www.museumproducts.net>

Nasco
901 Janesville Ave.
PO Box 901
Fort Atkinson, WI 53538
(800) 558-9595
<www.nascofa.com>

Nature Discoveries
389 Rock Beach Rd.
Rochester, NY 14617
(716) 544-8198

Nature's Own
Earth Science Supplies
3564 Pearl St.
Boulder, CO 80301
(800) 213-2341
<www.naturesown.com>

Orion Telescopes and Binoculars
PO Box 1815
Santa Cruz, CA 95061
(800) 447-1001
<www.telescope.com>

RainWise, Inc.
25 Federal St.
Bar Harbor, ME 04609
(800) 762-5723
<www.rainwise.com>

Science Kit and Boreal Laboratories
PO Box 5003
Tonawanda, NY 14151
(800) 828-7777
<www.sciencekit.com>

Skulls Unlimited International
10313 S. Sunnylane
Oklahoma City, OK 73160
(800) 659-SKULL
<www.skullsunlimited.com>

WARD's Natural Science
5100 W. Henrietta Rd.
PO Box 92912
Rochester, NY 14692-9012
(800) 962-2660
<www.wardsci.com>

Wildlife Supply Co.
95 Botsford Pl.
Buffalo, NY 14216
(800) 799-8301
<www.wildco.com>

Natural Resource Management Publications

American Wildlife and Plants, A Guide to Wildlife Food Habits by Arnold L. Nelson, A. C. Martin, and H. S. Zim (Dover Press, 1985). This resource lists the primary food sources month by month for many North American birds and mammals.

Enhancement of Wildlife on Private Lands by Daniel Decker and John Kelley (Cornell Cooperative Education, 1998). This publication shows what types of habitat attract which animals so you can either attract, or discourage, these creatures. Includes dozens of illustrations and detailed instructions for making 10 habitat projects. Many are applicable for an urban park, suburban backyard or rural area. Contact: Cornell University Resource Center, 7 Business and Technology Park, Ithaca, NY 14850, (607) 255-2080, <www.cce.cornell.edu/>.

Guidelines and Features for Outdoor Classrooms published by Indiana Department of Natural Resources, Division of Forestry, 1992. Over 50 school site features are described and correlated to PLT and WILD activities. In addition, about 20 sample plans for school sites are included. Available from IDNR, 402 W. Washington, Room 296, Indianapolis, IN 46204, (317) 232-4105, <www.state.in.us/dnr/forestry/index.html>.

Homes for Wildlife: A Planning Guide for Habitat Enhancement on School Grounds by Marilyn Wyzga (New Hampshire Fish & Game Department, 1995). Students design and carry out plans for improving wildlife habitat, mapping the area, developing and implementing a plan, and following the changes that ensue. Engaging activities and worksheets for children in grades K – 6. Order from Acorn Naturalist <www.acornnaturalists.com>.

Lakescaping for Wildlife and Water Quality by Carrol Henderson, Carolyn Dindorf and Fred Rozumalski (Minnesota DNR, 1998). Contact: Minnesota's Bookstore, 117 University Avenue, St. Paul, MN 55155, 1-800-657-3757, <www.dnr.state.mn.us/information_center/books.html>.

Landscaping for Wildlife by Carrol L. Henderson (Minnesota DNR, 1987). Contact: Minnesota's Bookstore, 117 University Avenue, St. Paul, MN 55155, 1-800-657-3757, <www.dnr.state.mn.us/information_center/books.html>.

Outdoor Hazards in Wisconsin: A Guide to Noxious Insects, Plants, and Wildlife by Scott R. Craven, Robert C. Newman, and Phillip J. Pellitteri (University of Wisconsin – Cooperative Extension Publication # G3564). Contact: Cooperative Extension Publications, 45 North Charter Street, Madison, WI 53715, (877) WIS-PUBS.

Prairie Restoration for Wisconsin Schools by Molly Fifield Murray (University of Wisconsin – Madison Arboretum, 1993). Education through ecological restoration is the theme of this curriculum. It features a guide to prairie ecosystems plus dozens of interdisciplinary, open-ended activities for grades K-12. Contact the University of Wisconsin – Madison Arboretum, 1207 Seminole Highway, Madison, WI 53711.

Urban Wildlife Manager's Notebook published by the National Institute for Urban Wildlife. This series of pamphlets covers natural history and practical construction information. Titles include "Rockpiles and Brushpiles," "Saving Snags for Urban Wildlife," and "A Wildlife Plan for Small Properties." Contact: Urban Wildlife Resources, 5130 W. Running Brook Rd., Columbia, MD 21044, (410) 997-7161, <http://users.erols.com/urbanwildlife/>.

Wetland Restoration Handbook for Wisconsin Landowners by Alice L. Thompson and Charles S. Luthin (WDNR - Bureau of Integrated Science Services, 2000). This handbook defines wetlands, describes wetland practices, and walks the landowner through the restoration process.

Wild School Sites: A Guide to Preparing for Habitat Improvement Projects on School Grounds published by Western Regional Environmental Education Council, 1993. This guide contains everything you need to start a wildlife habitat project. Contact the Wisconsin Project WILD office: WDNR, P.O. Box 7921, Madison, WI 53707, (608) 264-6280.

Wildlife Habitat Evaluation Handbook by Edward Neilson and Delwin Benson, 1991. This handbook, for use in 4-H wildlife management competition, covers management concepts and an index to 43 large-scale management practices. Includes photographs, charts, and mapping diagrams. Available from National 4-H Council, 7100 CT Avenue, Chevy Chase, MD 20815.

Wildlife and Timber from Private Lands: a Landowner's Guide to Planning by Daniel Decker, John Kelley, T.W. Seamans, and R.R. Roth (Cornell Cooperative Extension, 1990). This informational booklet includes a sample woodland-wildlife management plan and explains how landowners can make a personal plan by using clues from wildlife. (Publication # 147IB193) Contact: Cornell University Resource Center, 7 Business & Technology Park, Ithaca, NY 14850, (607) 255-2080, <www.cce.cornell.edu/>.

Wildlife and Your Land: A Series About Managing Your Land for Wildlife by Mary K. Judd, Diane Schwartz, and Todd L. Peterson, 1996 - 1998. This is a series of booklets about managing your land for wildlife. Contact: WDNR, Bureau of Wildlife Management, P.O. Box 7921, Madison, WI 53707. They are also listed on the WDNR website under Wildlife Publications.

Wisconsin's Champion Trees published by the Wisconsin Department of Natural Resources, 1998. This resource contains information on how to measure a tree and how to compare it to the state records. It also includes a detailed listing of the largest trees in the state organized by species. You can get a copy by contacting your local WDNR Forester and asking for publication number PUB-FR-115 98. It is also available online at the WDNR website.

Wisconsin's Forestry Best Management Practices for Water Quality by Steve Holaday (Wisconsin Department of Natural Resources, 1995). This manual tells loggers, landowners, and foresters how to plan timber harvests, build roads, and replant harvested areas in ways that protect water quality. Publication number FR093. Available from WDNR foresters and online at <www.dnr.state.wi.us/org/land/forestry/usesof/bmp/BMP.htm>.

Wisconsin Manual of Control Recommendations for Ecologically Invasive Plants edited by Randy Hoffman and Kelly Kearns (WDNR – Bureau of Endangered Resources, 1992). This guide provides specific measures for chemical, mechanical, and biological control of Wisconsin's invasive plants.

Wisconsin Woodlands: Wildlife Management by Scott Craven (University of Wisconsin – Cooperative Extension publication # G3097). Contact: Cooperative Extension Publications, 45 North Charter Street, Madison, WI 53715, (877) WIS-PUBS. Also available as a PDF file by searching at <www1.uwex.edu/ces/pubs/search.cfm>.

Facility Development Resources

General Guidelines for Facility Development

Keep in mind local zoning regulations, shoreline development regulations, and accessibility when considering all construction projects.

The Americans with Disabilities Act Handbook
Available online at <www.usdoj.gov/crt/ada/publicat.htm>.

Everyone's Nature: Designing Interpretation to Include All by Carol Hunter (Colorado Division of Wildlife, 1994). The author encourages the use of universal design principles that allow all people to access wild places.

Trail Construction, Signage, and Maintenance

The Complete Guide to Trail Building and Maintenance by Carl Demrow and David Salisbury (Appalachian Mountain Club, 1981). Learn all the right tools and techniques to build and maintain woodland trails Contact: AMC, C/O 10 Water St, Lebanon, NH 03766, (800) 262-4455, <www.outdoors.org/>.

Planning Trails with Wildlife in Mind, A Handbook for Trail Planners published by Trails and Wildlife Task Force, Colorado State Parks and Hellmund Associates, 1998. A pdf file is available for download from the Colorado DNR <www.dnr.state.co.us/trails/planning_trails.html>.

Recreational Trail Design and Construction by David M. Rathe and Melvin J. Baughman (University of Minnesota - Extension Service, 1994). This resource gives step-by-step instructions for planning and constructing woodland trails. It provides detailed standards and illustrations for various types of trails including hiking, horseback riding, cross-country skiing, and snowmobiling. It was written for private woodland owners; also valuable to organizations and businesses interested in constructing trails. Contact: Extension Distribution Center, 405 Coffey Hall, 1420 Eckles Avenue, University of Minnesota, St. Paul, MN 55108-6068, (800) 876-8636. View copy on line by following links from <www.extension.umn.edu/units/dc/catalog.html>.

Signs, Trails, and Wayside Exhibits: Connecting People and Places by Suzanne Trapp, Michael Gross and Ron Zimmerman (University of Wisconsin – Stevens Point, College of Natural Resources, 1992). Part of the Interpreter's Handbook Series, this book contains photos, practical ideas, and case studies from around the world. Find out about planning and producing effective signage and interpretive trails.

Wildlife Homes, Feeders, and Habitat

Basic Projects in Wildlife Watching by Sam Fadala (Stackpole Books, 1989). Build projects that attract wildlife such as watering holes, blinds, woodpiles, calling stations, and scent posts.

Beastly Abodes: Homes for Birds, Bats, Butterflies and Other Backyard Wildlife by Bobbe Needham (Sterling Pub., 1996). This resource describes 35 projects, all made with natural materials that blend into and enhance backyard settings or school sites. Build rustic bat houses, butterfly boxes, gourd birdhouses, woven vine bird feeders, toad houses, and more. Find detailed drawings for creations that are fun to build and attractive. Ages 8 – 15.

Bird Feeding: Tips for Beginners and Veterans by Scott Craven and Robert L. Ruff (University of Wisconsin – Extension Publication # G3176). Contact: Cooperative Extension Publications, 45 North Charter Street, Madison, WI 53715, (877) WIS-PUBS. Also available as a PDF file by searching at <www1.uwex.edu/ces/pubs/search.cfm>

Stokes Birdhouse Book: The Complete Guide to Attracting Nesting Birds by Donald and Lillian Stokes (Little, Brown & Company, 1990). Complete plans, materials list, and precise dimensions ensure success.

Homes for Wildlife: A Planning Guide for Habitat Enhancement on School Grounds by Marilyn Wyzga (New Hampshire Fish & Game Department, 1995). Students design and carry out plans for improving wildlife habitat, mapping the area, developing and implementing a plan, and following the changes that ensue. Grades K – 6.

Shelves, Houses and Feeders for Birds and Mammals by G. Barquest, S. Craven, and R. Ellarson (University of Wisconsin – Extension publication number NCR338). Contact: Cooperative Extension Publications, 45 North Charter Street, Madison, WI 53715, (877) WIS-PUBS. Also available as a PDF file by searching at <www1.uwex.edu/ces/pubs/search.cfm>.

Wild About Birds: The DNR Bird Feeding Guide by Carrol L. Henderson (Minnesota DNR, 1995). Build 26 different feeders and discover tips on feeding. Contact: Minnesota's Bookstore, 117 University Avenue, St. Paul, MN 55155, 1-800-657-3757, <www.dnr.state.mn.us/information_center/books.html>.

Woodworking for Wildlife: Homes for Birds and Mammals by Carrol Henderson (Minnesota DNR, 1992). A very comprehensive guide to creating housing for wildlife. In addition to detailed plans and drawings, this book shows you how to foil predators that try to turn nest boxes into dinner stations. Details for housing 45 different species of birds and mammals. Contact: Minnesota's Bookstore, 117 University Avenue, St. Paul, MN 55155, 1-800-657-3757, <www.dnr.state.mn.us/information_center/books.html>.

Check Out These Websites!

Association for Biodiversity Information
www.natureserve.org

Center for Environmental Education
www.cee-ane.org

Chequamegon - Nicolet National Forests
www.fs.fed.us/r9/cnnf

Classroom FeederWatch
http://birdsource.cornell.edu/cfw

Earth Partnership for Schools Program
http:/wiscinfo.doit.wisc.edu/arboretum

Earthsaver Clubs
www.nwf.org/earthsavers

EEK! Environmental Education for Kids!
www.dnr.state.wi.us/eek/

EE Link
http://eelink.net

eNature, Inc.
www.enature.com

Environmental Systems Research Institute
www.esri.com

Evergreen
www.evergreen.ca

Forest Research Community
www.reeusda.gov/forest

Forest Stewardship Council
www.fscus.org

F.R.E.E. Network
Forest Resource Environmental Education
www.freenetwork.org

Georgia Pacific
www.gp.com/educationalinnature

Great Lakes Ecological Assessment
www.ncrs.fs.fed.us/gla/

Green Brick Road
www.gbr.org

Green Teacher
www.web.net/~greentea/

Greening Schoolgrounds
www.greengrounds.org

Journey North
www.learner.org/jnorth

Library of Congress
http://lcweb2.loc.gov/ammem/collections/finder.html

Madison School Forest Guidebook
www.madison.k12.wi.us/forest/edguide.htm

Minnesota Department of Natural Resources
www.dnr.state.mn.us

National Weather Service
www.crh.noaa.gov/mkx/climate.htm

National Wildlife Federation's Schoolyard Habitats Site
www.nwf.org/habitats/schoolyard

Project WET
www.montana.edu:80/wwwwet

Project Learning Tree
www.plt.org

School Nature Area Project (SNAP)
www.stolaf.edu/other/snap

State Historical Society of Wisconsin
www.shsw.wisc.edu

State of Wisconsin
www.wisconsin.gov

Terraserver.com
www.terraserver.com

Topozone.com
www.topozone.com

Trees For Tomorrow
www.treesfortomorrow.com

USDA – Forest Service – Northeastern Area State and Private Forestry
www.fs.fed.us/na/

USDA – Natural Resource Conservation Education
www.na.fs.fed.us/spfo/ce

USDA – Natural Resources Conservation Service
www.nrcs.usda.gov

US Environmental Protection Agency
www.epa.gov

US Fish and Wildlife Service
www.fws.gov

US Geological Survey
www.usgs.gov

University of Wisconsin – Community, Natural Resource and Economic Development
www1.uwex.edu/ces/cnred

University of Wisconsin – Cooperative Extension
www1.uwex.edu/ces

University of Wisconsin – Extension
www1.uwex.edu

University of Wisconsin – Stevens Point: Treehaven Field Station
www.newnorth.net/treehaven/

Wisconline
www.wisconline.com

Wisconsin Center for Environmental Education
www.uwsp.edu/acad/wcee

Wisconsin Department of Agriculture, Trade, and Consumer Protection
http://datcp.state.wi.us

Wisconsin Department of Natural Resources
www.dnr.state.wi.us

Wisconsin Department of Public Instruction
www.dpi.state.wi.us

Wisconsin Environmental Education Board
www.uwsp.edu/cnr/weeb

Wisconsin Forest Resources Education Alliance
www.wfrea.org

Wisconsin Geological and Natural History Survey
www.uwex.edu/wgnhs

The Wisconsin Page
www.uwsp.edu/acaddept/geog/wisconsin

Wisconsin State Cartographer's Office
http://feature.geography.wisc.edu/sco

Wisconsin State Climatology Office
www.aos.wisc.edu/~sco

Wisconsin's Vascular Plants
www.wisc.edu/herbarium

World Forest Institute
www.vpm.com/wfi

WWW Virtual Library: Forestry
www.metla.fi/info/vlib/Forestry

Evaluation

How to Grow a School Forest

We hope that you found this handbook useful and inspiring. Please take a few minutes to share your thoughts, reactions, criticisms, and comments.

What is your position? (For example, school forest coordinator, member of school forest committee, administrator, etc.)

Would you recommend this handbook to other educators? Why?

What did you find most useful about the handbook?

Was the handbook easy to follow, or do you have suggestions for ways to make it more user-friendly?

If we publish a second edition, what would you like to see added?

If we publish a second edition, what would you leave out?

Do you have any "kindling" to share with other educators around the state?
(Please give us your name and the name of your school forest so we can give you credit!)

Optional

Name _____
Address _____
City _____
State _____
Zip _____

Please send this completed form to:
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FAX: (715) 282-7112
wfrea@newnorth.net
or fill it in on the website
<www.wfrea.org>

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