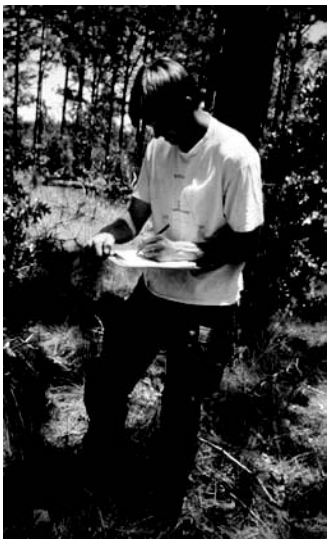
Make a Master Plan

Develop a vision for your Indiana woodlot

Why should I plan?
Your backyard woods is like a garden that needs to be tended to get the best results. By weeding, adding new trees and shrubs, managing insects and diseases, and harvesting products, you'll help nature create the backyard woods that meets your needs and wants.

Even if you are contented with your backyard woods today, it will change over time. As trees and the associated plants sprout, grow, and die, other plants and wildlife will replace some of the trees and wildlife you currently enjoy. Brush will fill in the trails. Trees will invade your favorite berry-picking spots or obscure your favorite view. Your trees may become overcrowded, lose their vigor, and become susceptible to insects and diseases.



Caring for your backyard woods can take a lot of time and money. A master plan will help you focus on what is important to you and your family. It will help you organize the work so that it is manageable and fits your budget and available time.

How do I get started?
The first step requires a pencil and paper, and some time to think. You may want to sit down with your family and talk about your backyard woods.

Answers to questions such as these will help you to develop a vision for your backyard woods:

- Why do we have this land?
- What do we like about it?
- What words describe the feelings we have for this land?
- What do we want it to produce?
- What do we want it to look like in 5, 10, and 20 years from now?

What are my objectives for my woods?
The most common objectives for backyard woods are to improve wildlife habitat, aesthetics, and recreation. Other objectives include tree value and special forest products. You can have more than one objective. Maintaining a healthy woods and a safe environment should always be included among your objectives.

To reach your vision for your backyard woods, develop specific objectives that will help you identify the actions you need to take. Here are a couple of examples:

- It is not enough to say you want more wildlife. You need to decide which animals are most desirable, and whether improved bird watching, hunting, or just a greater variety of animals is your objective.
- Perhaps natural beauty is what you want. Your objectives may be to improve the view from your house or possibly to add some color or different shapes to your backyard woods by planting a variety of trees.

With backyard woods management, achieving several objectives at once is usually easy. For example, when you are cutting firewood, which of these would you say you are doing: producing fuel, providing space for your favorite trees to grow, making brush piles for rabbits, or enjoying yourself? Many backyard woods owners would answer, "All of these!"

Talk with your neighbors and ask them about their plans for their woods. Working together on similar objectives can make the task easier and greatly increase the impact on wildlife and other values you share.

What do I have on my property?
The trees you have or can grow on your property are determined by climate, soils and the previous landowner's activities. You may not be able to develop specific objectives and activities to reach your objectives until you know more about your property.

Temperature and precipitation are the main climate factors affecting the types of trees and their growth on your property. Each type of tree has a minimum and maximum temperature that limits its growth, and an optimum temperature for growth. Trees need at least 15 inches of annual precipitation to grow, but they can use much more.

Depth and texture are soil factors that control the amount of moisture and nutrients available to trees and other plants. Deep soils are generally better than shallow soils because they have the potential for greater nutrient supply and water-holding capacity.

Soil texture refers to the size and shape of the sand, silt, and clay particles in your soil. Sand particles are relatively large and irregularly shaped. Silt particles are very small sand particles. Clay particles are extremely small and flat. Soils are named based on the percentage of sand, silt, and clay they contain. Loam is the name for soils with various mixtures of sand, silt, and clay particles. Sandy soils have large spaces between the particles enabling water to move through it quickly, so less water and nutrients are available to plants. Clay soils hold a large amount of water and nutrients but the spaces between particles are so small that roots have a difficult time reaching it. Silt soils are similar to clay soils. Loams are the most productive soils because they have the best qualities of sand and clay without their undesirable characteristics.

Talk with your neighbors and visit the local Soil and Water Conservation District to find out the previous uses of your property.

Climate, soils, and previous uses are beyond your control. The best way to work within these conditions is to maintain and plant native trees and plants. They have adapted to the climate and soils in your backyard woods, and need the least amount of your time and work for them to grow.

Refining your objectives and activities requires you to find out what is on your property. Walking your property and sketching a map is a good way to inventory your woods. The sketch map can be developed using different materials, such as one of the following:

1. **An aerial photograph.** A "birds-eye-view" of your backyard woods may help you locate different vegetated areas, property boundaries, streams, ponds, roads, and trails before you walk through your woods. Aerial photographs are available in black and white or color prints in a variety of scales and sizes. (One or more of these offices should have the photos you need: USDA Natural Resources Conservation Service, Farm Service Agency, or Soil and Water Conservation District; U.S. Department of Interior, Bureau of Land Management; State forestry agency, Department of Revenue, Department of Transportation; and County assessor and surveyor.) Make a photocopy and draw your sketch map on it, or use clear acetate overlay and transparent markers to sketch your map.

2. **A photocopy of the plot map for your property.** Enlarge the map to a size that's easy to work with. The plot map is available from your county assessor's office.

3. **A sheet of graph paper.** Sketch your map to scale on the graph paper by designating each inch on the graph paper equal to a set number of feet on the ground, such as 1 inch equals 100 feet.

An aerial photograph helps you identify land uses and variations in your backyard woods.

As you walk through your property sketch tree-covered areas, treeless areas, unique features like rock outcrops, streams, ponds, swamps, wet spots, stone fences, and colorful foliage, roads, trails, house, other structures, and yard. Be sure to walk your boundary lines, and if they are not evident, locate them and mark them.

Where does my backyard end and my backyard woods begin? There is no exact, defined line, but generally your backyard woods is at least as far away from your house or other structure as the height of a mature tree in your area. In other words, if a mature tree on your property would be cut and would fall on your house or other structure, you are in your backyard, not your backyard woods.

Look for variation in tree-covered areas. Variations in your woods occur because of changes in elevation, proximity to water, differences in soil, and activities of previous landowners. Identify patches with distinct tree type, size, or tree grouping, or all of these. For example, you might identify medium-sized broadleaf trees that are evenly spaced, a crowded patch of small needleleaf trees, and a group of large needleleaf and broadleaf trees widely spaced.

Record tree conditions and clues to wildlife uses for each patch you identify. Look for full healthy foliage or discolored or shredded leaves, caterpillars on trees, dead branches in the tops of trees, odd growths on stems or branches, or dead trees. Clues to wildlife use could be a nest in a tree, a den, beaver pond, animal tracks, or dead tree with a large hole in the trunk.

Walking your property and reviewing your map and descriptions at different times of the year will help you identify seasonal features like wet spots, channels that carry water periodically, flowering plants, and colorful foliage.

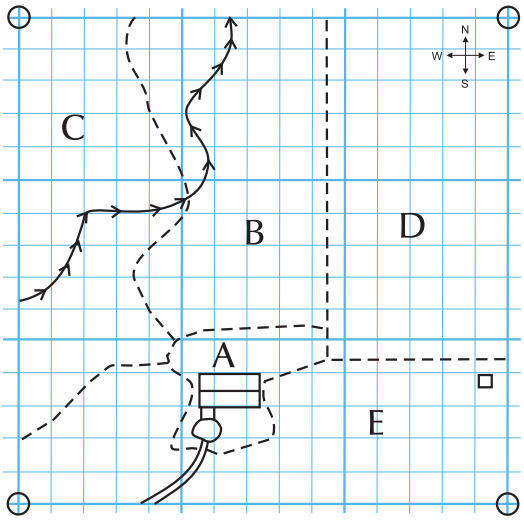
As you make your map, also look at what's on the other side of your property line. Features on your neighbors' properties can affect what you do on yours, so sketch in their significant features such as ponds, streams, pastures, or woods of various kinds.

The example property is located in plant hardiness zone 5 with 35 inches of annual precipitation. A soil map identified the soil as a sandy loam, on 12 to 18 percent slopes, and with a depth greater than 2 feet. Soil interpretations recommended pine and oak as trees suited for the soil.

The description recorded by the landowner for each area on the map is as follows:

A. Home, lawn, and yard trees. One yard tree near area C. has several dead branches. A nice lawn on the south has a large turnaround. The north has a great view of the neighbor's pond and a beautiful lawn. The woods is close to the house on the east and west providing morning and evening shade.

B. Treeless area with grass and some flowering plants, and numerous small trees and shrubs. The small stream has some eroding banks because the previous owner used the surrounding area as a pasture. The water in the stream gets cloudy after a rain. This is a good place to see deer and birds.



A - E Different areas and tree covered patches
⊕ Boundary corner
--- Area and patch boundaries
↣ Stream
Home
Driveway
Turn-around in driveway
Viewpoint

After you inventory your backyard woods you can draw your own map on graph paper.

C. Several large broadleaf trees. It's shady under the large trees, with a few small trees and shrubs. The trees next to the stream are a different type than the trees in the rest of the area with more shrubs and other plants. The woods continues into the neighbor's property. A small opening with stumps indicates tree cutting. The stream contains clear cool water.

D. Small needleleaf trees with thin foliage close together in rows. Plants are growing between the rows of trees. The former owner tried to grow Christmas trees, but chose trees not suited to the soil or the climate.

E. Mixture of medium-size needleleaf and broadleaf trees. All the tree's branches are growing together and most of the needleleaf trees have dead branches. There is a good view from the hill near the east boundary. A large tree on the hill is mostly dead.

What will I do?

Compare your objectives and inventory, and make adjustments if needed. In the example, the objectives of the landowner and his family were to keep the property natural, watch wildlife, and enjoy the view from their home. After they talked with their neighbors, attended a university extension service workshop on living on a few acres, and surveyed their property, they changed their

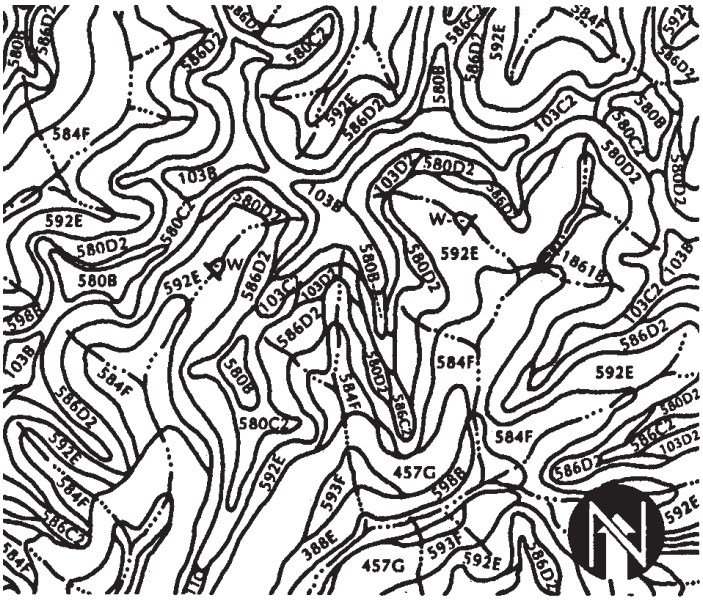
objectives. Their revised primary objectives are to protect their home from wildfire and improve wildlife viewing, especially of birds and deer. Secondary objectives are to construct a trail for walking and truck access, cut firewood, produce oak lumber for woodworking projects, and improve the appearance of their woods.

Use your inventory to plan activities that will accomplish your objectives. The order and year in which you list the activities will depend on your objectives, time, and money. Don't try to do everything at once. Think long term and develop a 10-year plan. Your 10-year plan may look something like the version on the next page for the example backyard woods.

Your plan is flexible. Review it periodically to be sure it still meets your objectives and that you have the time and money to implement it.

Can I get help with my plan?
A county soil survey contains the soil map along with information on soil use and management for trees, wildlife, and trail building. USDA Natural Resources Conservation Service, Soil and Water Conservation District, and Cooperative Extension Service offices are places to obtain soil surveys. Average annual precipitation amounts and plant hardiness zone maps are also available at these offices.

You will need information on what to do and how to do it. Personal education is available on the Web. A good place to start is www.arborday.org, which contains links to Web sites that may be helpful to you. Soil and Water Conservation District and Cooperative Extension Service offices are good sources of local information.



A soil map will identify the soil types on your land.

There are opportunities to get personal assistance. Many states have Master Forest Owner programs that are similar to Master Gardener programs. Woodland owners receive training on caring for trees and woods and then volunteer their time to help other landowners. Contact your local Cooperative Extension Service office to see if there is a Master Forest Owner program in your area.

You may be able to hire a consulting forester, landscape architect, or arborist on an hourly basis to do a short "walk through" with you to give you ideas on what you might do to reach your objectives. Try to find someone who can tell you about the soil, historical land use, the health and economic value of your trees, the resident wildlife, and what the woods will look like in 20 years if you leave it alone or if you choose to apply practices to improve it. Consider talking with your neighbors about having a natural resource professional look over all of your properties.

If you don't have the equipment, time, or skill for a project, seek local sources of help. The farm and garden supply store, weekly swap and sell guide, and local newspaper contain information on locally available services.

Whatever you do, have fun doing it. Include your family, and your neighbors if possible. A large task can be made easier with partners.

In the Forest

Private forest landowners with larger acreages become woodland stewards by actively managing their land for personal benefits, while protecting the quality of its natural resources (soil, water, wildlife, trees, and other plants) for future generations. A forester or a natural resource manager helps these landowners understand current forest conditions, and management activities needed to obtain their desired goals. As these plans are implemented, forest health, wildlife habitat, water quality, and forest products are protected and improved. As neighboring forest landowners begin to mange their land the benefits multiply and forested landscapes are conserved.

Plans developed for these private forest landowners are called Forest Stewardship Plans. Forest Stewardship Program is a national program administered by the USDA Forest Service, and implemented by State forestry agencies. Forest landowners contact their local state forester to request a plan.

Ten-Year Activity Plan

Year	Area	Activities	Help Needed
1.	All	Learn more about plants, animals on land, and take chainsaw training.	
	A	Conduct fire audit.	
	A	Hire someone to inspect unhealthy tree, and remove it and protect other trees if needed.	Arborist Contractor
	B	Explore methods to remove trees and shrubs from area.	
2.	D	Cut three rows of needleaf trees next to area B and make wildlife brush piles among adjacent rows of trees.	
	All	Add birdhouses in various places.	
	B	Remove trees and shrubs.	
	A	Expand lawn to at least 30 feet on east and west sides of house, remove some trees with branches touching, and remove branches on trunks up to 10 feet.	Contractor
3.	D	Plant mixture of trees and shrubs for wildlife and aesthetics as border between area B.	
	D	Control weeds in planted area.	
	D	Do nothing on the rest of the area and see what grows.	
4.	D	Continue weed control on wildlife planting.	
	All	Design, lay out, and construct trail for hiking, truck use, and fire break. Construct bridges at stream crossings.	Contractor
	E	Remove the top of old tree on top of hill, and leave trunk for wildlife use.	Contractor
	B	Remove a 30-foot strip of vegetation along both sides of stream for tree and shrub planting.	
5.	D	Continue weed control on wildlife planting.	
	C	Work with neighbor to share costs of cutting 2-3 oak trees. Purpose: lumber and firewood, wildlife opening, and space for young oak to grow. Hire portable sawmill operator to saw logs into lumber, and stack boards to dry. (See the Backyard Woods Tip Sheet on Generate Wood Products for more information.)	Neighbor Logger Operator
	B	Plant trees and shrubs along stream to cool the water, reduce bank erosion and improve wildlife habitat.	
6.	D-B	Continue weed control on planting sites.	
	C	Check opening to be sure young oaks have room to grow. Remove any competition.	
	E	Select individual trees that you want to keep for aesthetics and wildlife uses. Cut or girdle some trees for the next several years that are touching selected trees' crowns. Use cut trees for firewood or leave on ground, and leave girdled trees standing for wildlife.	
	E	Prune branches on trunks of selected trees for wildfire safety and aesthetics.	
7.	C	Continue to check on oaks in opening.	
	E	Continue to remove trees competing with selected trees.	
	B	Continue weed control on streamside planting.	
	E	Place oak bench on overlook.	
8.	C	Cut 2-3 oaks using the same method if young oaks are growing in the first opening. If they are not growing find another method.	Logger Operator
	B	Continue weed control on streamside planting.	
9.	C	Check opening for young oak growth.	
	E	Continue removal of trees competing with selected trees.	
	B	Remove trees and shrubs from area.	
10.	C	Check opening for young oak growth	
	E	Finish removal of trees competing with selected trees.	
	D	Check the kinds of trees and shrubs replacing the needleleaf trees, and decide if need to change tree types.	
	All	Obtain information on how to grow ginseng and shiitake mushrooms.	

Bibliography

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INDIANA FORESTRY and WOODLAND OWNERS ASSOCIATION
www.fnr.purdue.edu/inwood/ifwoa%20home.htm

The National Arbor Day Foundation®
www.arborday.org/backyardwoods

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