

Case Study 2

The Rothmans

Property description and why we bought the land

Recently, we (my wife, Aliza, age 44; me, Hirsh, age 45; our children, Jody, age 17, and Chris, age 15) purchased a site for our new home. We call it the Pine Woods. For several years, we'd been searching for the ideal place to build. We wanted a forested tract with good access into the woods and the home site, yet isolated enough that we felt we were in the woods. We also wanted a relatively large tract with diverse tree species and wildlife management opportunities.

The Pine Woods meets our needs perfectly. The total area is about 10 acres. The lot is on a dirt road off the road to town. Once the dirt road enters the woods, it loops completely around the property and we own the entire loop. This will give us a place to walk and easy access to firewood to help heat the house.

The property has three streams that flow year-round. Two of them (Rocky Run and Stony Creek) originate from springs on the property. The one on the east side (Farm Creek) starts at a spring just over the property line. We thought maybe we could make a pond on the property, but the soil has limestone under it and we've been told that building a pond here would not be easy. That's okay because we like the streams.

Land management history

The Pine Woods is on the north side near the bottom of a large hill. In some areas there are lots of rocks on the surface, but we are told that the soil is really productive. Because of the rocks, the site was never cleared for farming; however, there is wire in some of the trees, so we think that parts of it may have been pastured.

The previous owner, Chuck Brown, who still owns some of the land to the southwest of us, had done some timber harvesting in the woodlot over the past 20-some years. He had worked with a state forester on each occasion to meet his specific objectives. His objectives closely paralleled our interests, except we don't need to earn income from timber sales. However, if sometime in the future we make some timber income, that'd be fine.

Anyhow, Mr. Brown did some cutting for wildlife. On the north side, near our neighbor's cornfield, there's a small cut (less than an acre in total) done in the early 1980s to leave nut-producing hickory trees and to make some wildlife cover. This has come back mostly in eastern white pine. Two of the remaining hickories have since blown over, and the area where they stood is full of what we've been told are "exotic invasive plants." Most of them are honeysuckle, multi-flora rose, barberry, and autumn olive. We don't know anything about these plants, but have been told that they are not desirable.

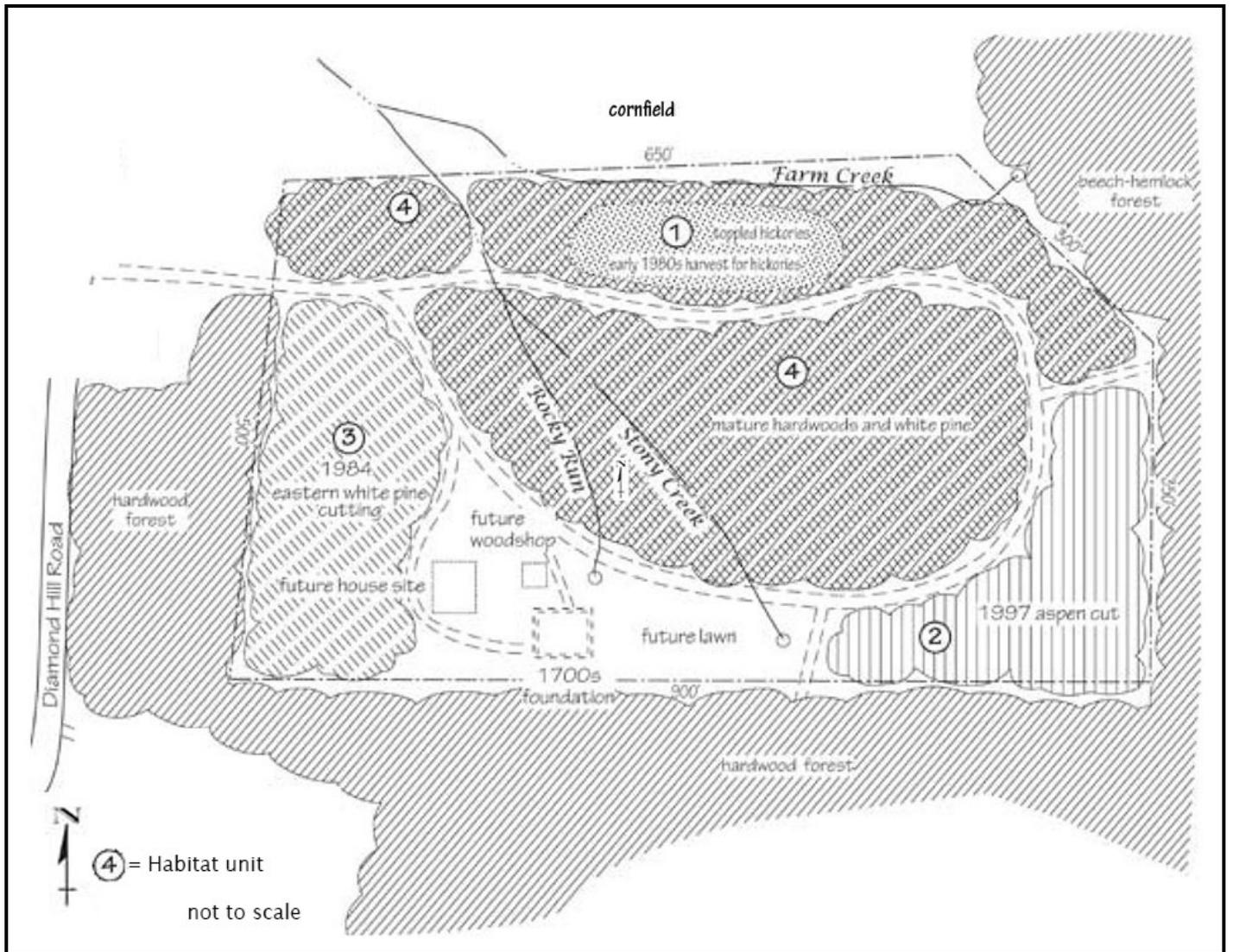
In the southeast corner of the property is a 2-acre clearcut that Mr. Brown did for two reasons: first, to make some money to pay for the road that loops through the woods, and second, to open the forest around some aspen trees. Again, we don't know much about these trees, but are told they are important for ruffed grouse.

Many little aspens have sprouted in this area, but another invasive plant, Asian bittersweet, is quickly crowding them out. We've been cautioned that we should cut the Asian bittersweet, but we want to leave a bit of it because this fall the plants were full of pretty orange berries that work really well in dried flower arrangements.

To the west of this clearcut, there is another area of cutting. Mr. Brown liked this spot because it's near an old foundation that he says dates back to the late 1700s. In about 1984, Mr. Brown decided to cut most of the black birch trees in this area and to leave some really tall eastern white pine trees. Now, about 20 years later, the whole area is full of young white pine trees that are 6 to 25 feet tall. It's so quiet and restful among all those trees. We plan to build our house among these pines, near the old stone foundation, which we intend to work into our landscaping, preserving its historic value.

The Rothmans' statement of interests

1. Produce one to two cords of wood annually to heat the house and woodshop.
2. Encourage a variety of wildlife.
3. Maintain a healthy forest.
4. Maintain stream culverts in good repair.



Land Characteristics and Potential

(a combination of Tables A, B, and C)

Habitat unit	Vegetation type	Three most common tree species	Three most common shrub species	Succession stage	Thinning recommended? (yes or no)	Young trees present? (yes or no)
1	north edge hickory wildlife cutting (early 1980s)	hickory, white pine, red oak	honeysuckle	3	no	yes
2	2001 aspen clearcut (2 acres)	aspen, elm	Asian bitter-sweet, grapevines	2-3	no	yes
3	1994 Pine Woods cut	white pine, red oak, black birch	spicebush	3	no	yes
4	bulk of property	white pine, elm, black birch, red maple, sugar maple, hickory	hop hornbeam	4	yes	yes

Land Characteristics and Potential

(continued)

Broken or dead? (yes or no)	Exotics/ invasives (list names)	Water resources	Wildlife and habitat elements	Recreation	Aesthetics
2 toppled hickories	honeysuckle, autumn olive, multiflora rose, barberry, grapevines	Farm Creek is near edge of this patch.	Hickory and oak mast trees, white pine, grapevines. Farm Creek nearby.	Good place for wildlife watching, but there's no place to sit. Invasives cover up old hiking trails and make access difficult.	n/a
no	bittersweet, grapevines, multiflora rose	n/a	Aspens, grouse habitat, early successional habitat, grapevines.	Good for wildlife watching. Lack of maintained trails to provide easy access.	n/a
no	barberry	Rocky Run and Stony Creek originate here. Dense thicket.	White pine, oak mast, black birch, early successional habitat. 2 springs.	Lack of maintained trails for access.	Clear around old foundation and integrate into yard.
a few	barberry	Rocky Run and Stony Creek pass through. They pass under the dirt road in culverts.	Hard and soft mast. A few snags and cavity trees. Some dense thickets. Stream habitat.	Deer trails but few maintained hiking trails for access. Many secluded areas with open under-story that could be used for camping or fire circle. A few old hunter's tree stands scattered throughout the area.	Good fall color from sugar maple.

Identify and Rank Your Objectives

	Potential objective	Rank selected objectives
<i>Natural area improvement</i>		
I have a grassy field or lawn I want to plant in trees.		
I want to manage exotic and/or invasive species.	X	4
I want to improve the health of my natural area.	X	3
I want to improve forest regeneration (tree reproduction).	X	
I want my trees to grow faster.	X	
I want to cut dangerous dead or damaged trees.	X	
I want to cut vines that are strangling and/or weighing down my trees.	X	
Other:		
<i>Forest products</i>		
I want to cut firewood for myself or others.	X	1
I want to start a forest products enterprise for fun and a little extra money.	X	
Specific enterprise of interest:		
Other:	X	
<i>Wildlife habitat elements</i>		
I want to create some snags for woodpeckers and other cavity-nesting animals.		
I want to create a soft edge between my lawn and forest to improve wildlife habitat diversity.		
I want to provide more shelter and/or food for wildlife.		
I want to have more reptiles and amphibians.	X	2
I want to discourage deer.	X	
I want to attract more wildlife to my property.		
Other: I want to attract more hummingbirds and butterflies.	X	
<i>Water resources</i>		
I want to create or enhance a riparian forest buffer.		
I want to protect the water quality in my waterway or spring/seep.		
Other:		
<i>Recreation</i>		
I want to build a recreational trail.	X	5
I want to build a road to provide or improve vehicle access.		
I want to create a special place in the woods for reflection, campfires, etc.	X	

**Identify and Rank Your Objectives
(continued)**

	Potential objective	Rank selected objectives
I want to create a place for nature study.		
I want to build a tree stand for deer hunting and/or wildlife viewing.		
Other:		
<i>Aesthetics</i>		
I want to make my forest more colorful throughout the year.		
I want to block an unpleasant view or have more privacy.		
I want to create a scenic view.		
I want to protect some special trees.		
Other:		

Project Schedule and Details

Habitat unit	Goal(s)	Project description (Provide details and step-by-step activities)	Priority	Project start date	Projected completion date	Who will do it?	Cost estimate
Mainly 4, some 3	Cut 1 to 2 cords of firewood annually; remove black birch trees	Birch occurs throughout units 3 and 4, often competing with more desired trees (e.g., white pine, oak). We will remove various kinds of trees that compete with desired species and good trees, but we will concentrate on cutting birch. We will also cut storm-damaged trees and trees that interfere with good mast-producing trees.	1	Annual	Annual	The family will all participate in cutting as they are able. If we find that it is too much work for us, we may hire a tree expert to help sometimes.	\$150 per year for chainsaw depreciation and fuel.
	Improve wildlife nesting opportunities	Create 2–3 snags per acre by girdling live trees; cut dangerous trees for firewood.	2	ASAP	1 month after start	Hirsh and Chris	\$15 for chainsaw fuel
Throughout the property	Manage exotic species	It is now apparent that exotic species are a problem, occurring in all the stands on the property. Continually remove all invasive plants along road. Apply herbicides to all other invasive plants as found, except around springs and streams.	3	This summer	Continuous in growing season	Aliza and Jody will cut. Hirsh will apply herbicide.	Estimated \$100 per year for herbicide.
4	Maintain road for travel around the woods	There are 3 culverts on the road system and some are starting to wash out. Hire a consultant every other year or as needed to check for necessary repairs. If the headwalls are damaged, they can be repaired with materials from the property. Heavy equipment may be required to reshape the road so water drains properly.	4	This spring, then every other year	Maintenance as needed	Hirsh will monitor culverts and oversee consultant.	3 hours of machine time at \$100 per hour, as needed.