

Landowners: Betsy and Bill Downing
1834 Simpson Avenue
St Paul MN 55113

Date: January 30, 2002

Home Phone: (651) 644-9625

Cabin Phone: (218) 326-4730

Stewardship acres: 36 **Total acres:** 36.75

Legal description:

Gov't Lots 5 and 6, less the north 450' of section 9 and
Gov't Lot 1 of section 16-57-25, Wabana Township, Itasca
County

Prepared by: Mimi Barzen, Forester

This woodland stewardship plan was designed to help guide the management activities of the natural resources on your property. The plan is based on your goals in harmony with the environment around you. Project recommendations are for your consideration.

The goals you identified for managing the property :

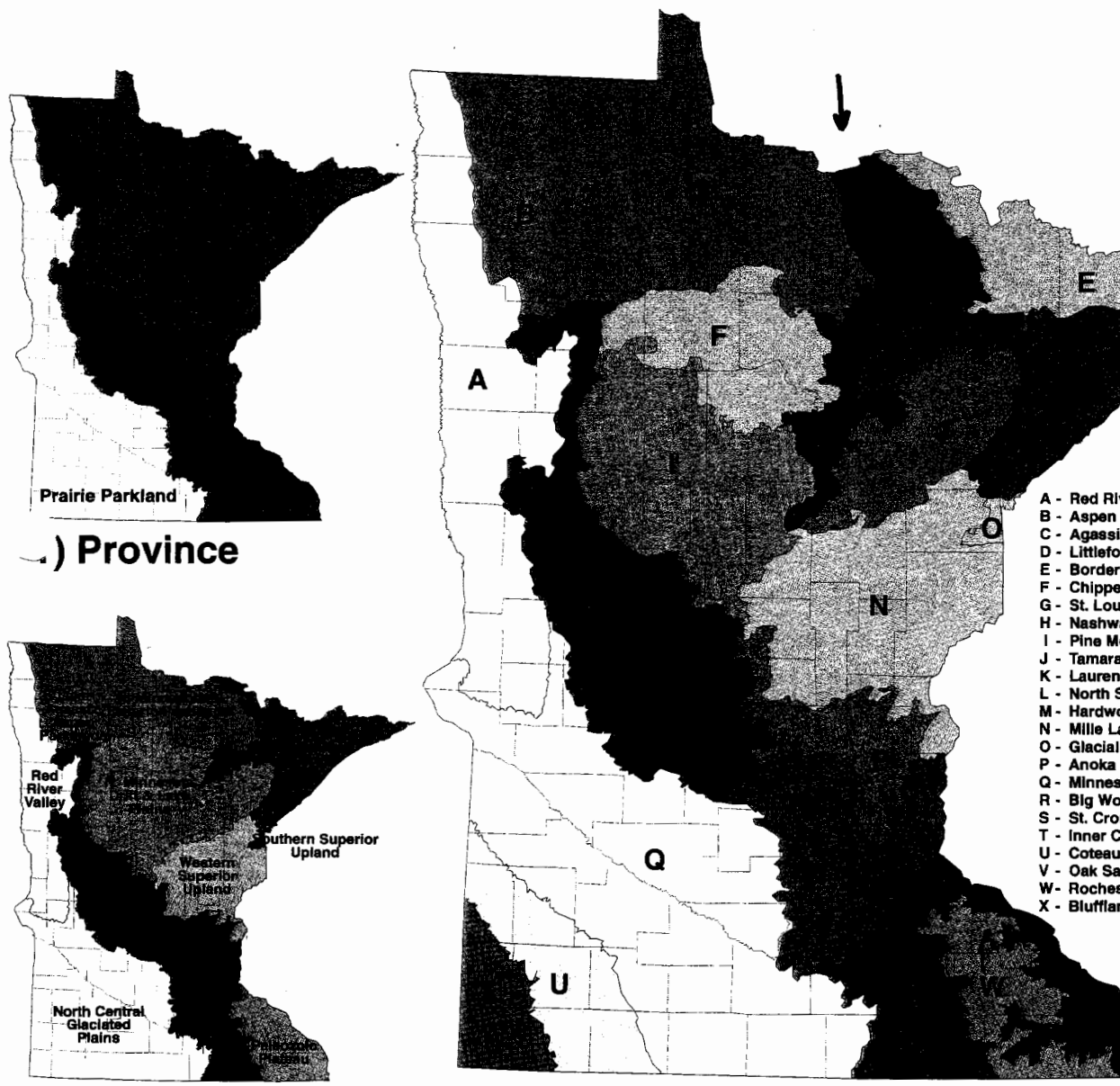
- joining the American Tree Farm program
- applying for the Sustainable Forestry Incentives program
- maintaining the scenic quality of Wabana Lake

For more cost-share information contact:

1201 East Highway #2
Grand Rapids MN 55744
(218)327-4119

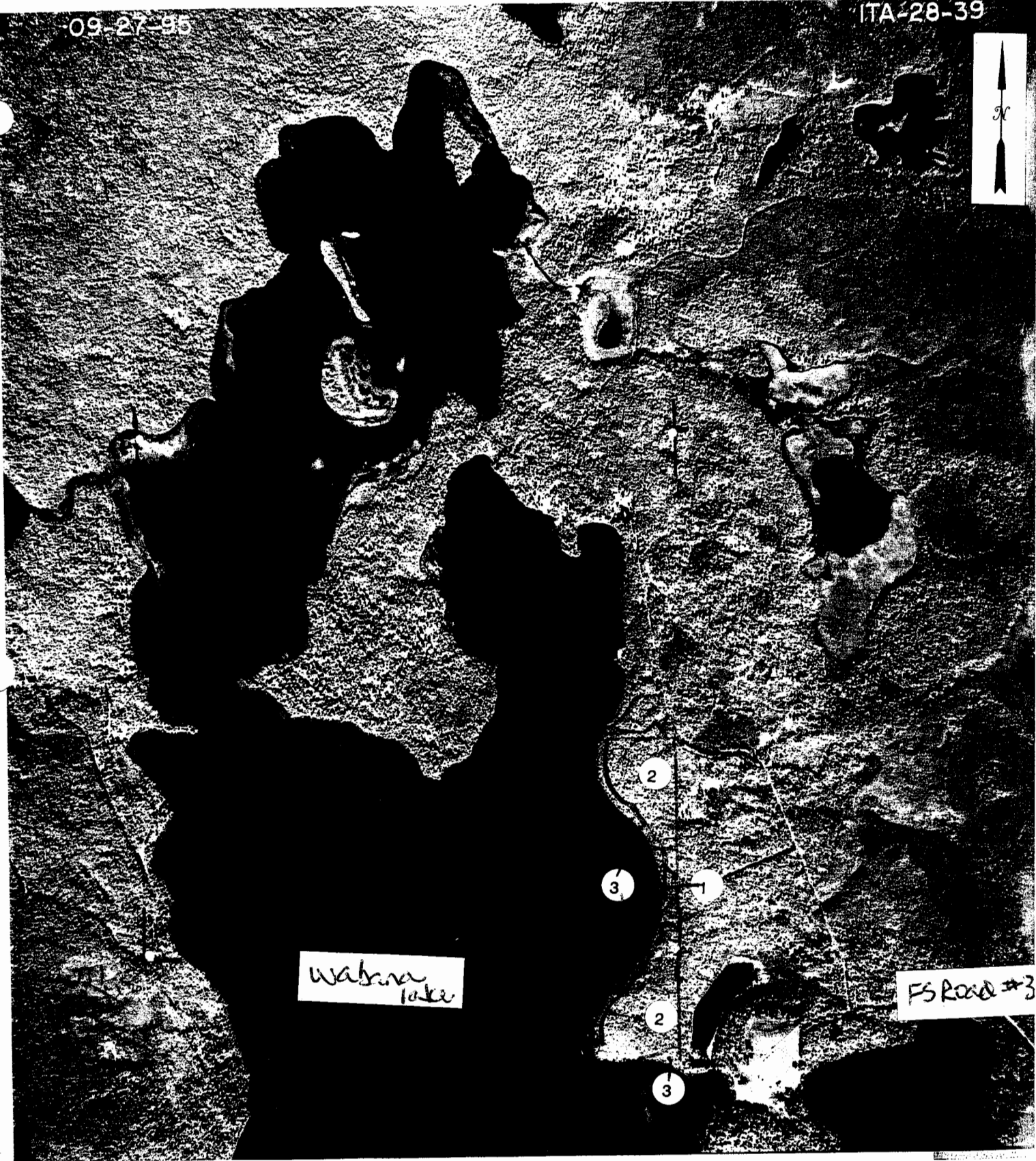


Upper Three Levels ECS for Minnesota



09-27-95

ITA-28-39



Wabena Lake

FS Road #3

- ① aspen 9-15"
- ② northern hardwoods 9-15"
- ③ northern hardwoods 5-15"

Scale: 4 inches =

Property Description

LANDSCAPE REGIONS: St Louis Moraines

Rolling to steep slopes characterize much of this region. Lakes are plentiful; they account for over 10 percent of the surface area of the region.

Vast white and red pine forests once covered large portions of the St. Louis Moraines. Aspen-birch forests also grew in the area. Fire played an important part in the natural disturbance of red and white pine stands, ensuring that they grew in same-age pure groves. Currently, the area is still heavily forested. It provides many renewable wood products and extensive recreation.

Conservation issues in the area include balancing the variety of demands placed on the forest. Assuring the health and natural diversity of ecosystems is necessary for the sustainable production of habitat, wood products, and recreational opportunities. Another major concern in the area is lakeshore development, and associated water quality concerns.

GENERAL PROPERTY DESCRIPTION:

The topography on your property is generally very steep, although there is a small area on the north end that is level. The entire site is forested with a mixed of upland hardwoods and a smattering of conifers. There are two soil types on this property, but they are very similar in composition. The northern third consists of well drained, dense loamy soils while the remainder is classified as well drained loamy soils. The later is very susceptible to rutting and compaction while the former is susceptible to compaction. The soil structure found in the north end is suited to winter harvesting while the soil found elsewhere can be harvested during a dry summer. Delays of up to two weeks are common if more than an inch of rain is received.

U.S. Forest Service Road #3487 provides access to your driveway, as well as the northeast corner of the property.

Wabana Lake is the dominant feature in the landscape as are other lakes in the chain, which include: Trout, Bluewater, and Little Trout. In addition to these lakes, several smaller lakes, such as Doan, Murphy, and Little Wabana are also scattered throughout the township. The surrounding area is heavily forested, most of it consisting of hardwoods. Small wetland pockets are usually associated with lakes under 80 acres in size. There are very few openings within two miles of your property. However, there is one is located southeast of your land, less than a quarter mile away as the crow flies. It may be beneficial to wildlife, but due to its proximity to dwellings, use by wildlife is probably very limited.

Ownership in the township is predominantly Forest Service in the north half of the township, while private land (including UPM Blandin, dominate the south half. There are also some county and state holdings. Half of your land adjoins Forest Service land while the other half is adjacent to other private property.

Woodland Stands

I checked our natural heritage database that lists threatened, endangered, and special concern plant and animal species, and the cultural heritage database for physical evidence of past human activities on your property and the surrounding ownerships. Nothing is listed in either database for your property, but as you may remember, many artifacts were discovered during the archeological work completed for the boat-in campsites. In addition to the cultural artifacts, the natural heritage data base indicated bald eagle nests nearby and there is evidence that an endangered plant, the clustered bur reed, has been found, as well as a plant pending to be put on the list, the slender naiad. Even though nothing is listed for your property, it doesn't mean the area is void of unique plants, animals, or cultural sites. As a matter of fact, with all the cultural evidence located elsewhere around the lake, it is very possible artifacts may be buried on your land as well.

There are no laws to protect cultural sites, but there are laws that protect burial grounds. This includes cemeteries, single graves, burial mounds, and other types of burial sites. No disturbance is allowed in these areas so if one is found, the integrity of the site must be maintained. Unique plants and animals also have laws that protect them from destruction.

No special management is required at this time for bald eagles, but if one should take up residence close to or on your property, wildlife specialists recommend the following. Management includes the use of buffer zones. Buffer zones are created to keep disturbance to eagles at a minimum. There are three zones. No management is recommended within 330 feet of a nest. Between 330 and 660 feet of the nest, some selective harvesting or thinning can take place. Beyond 660 feet, any management is appropriate. However, between the dates of February 15 and May 15 when eagles are nesting and tending young, no management is recommended within 660 feet from the nest.

Woodland Stands

ASPEN

Stand Number: 1

Stand Acres: 1

Stand Description:

This stand consists of overmature trembling aspen along with a bit of birch. Some sugar maple, basswood, and aspen can be found in the understory. These trees are just approaching the merchantable size class of 5 inches in diameter at breast height (DBH). Hazel is also in the understory, along with some scattered ironwood, most less than 3" DBH. Ground cover normally is a mixture of sarsaparilla, yellow clintonia, and grasses. Due to the advanced age of the stand, there is a considerable amount of rot in the forms of hypoxylon canker or white trunk rot, the most common diseases of aspen. Along with the deterioration is a significant amount of blowdown.

STAND DATA:

Age:	70 years+
Diameters:	9 to 15 inches DBH
Heights:	70 to 85 feet

Recommended Management Activities:

The aspen is probably beyond management at this point in time. It is so advanced in age and deterioration, no one would be interested in utilizing the wood. Many of the trees are even older than indicated above, but it wasn't possible to age the trees due to the advanced decay.

As the stand continues to evolve, the site will become a mixture of sugar maple, basswood and a bit of aspen, all of which are already found in the understory. As the older aspen continues to blowdown and/or die, these younger trees will have a period of rapid growth as more sunlight, nutrients, and water are made available when openings occur in the canopy. Although all these species are present, there are not enough to fully restock the stand at this time.

Succession in the stand is currently taking place. If you would like to maintain the aspen component, the best activity to pursue would be to girdle as many of the aspen trees as possible and leave them standing. Girdling will have the same

Woodland Stands

affect as harvesting. The dead trees will allow more sunlight to reach the forest floor, stimulating the roots to send aspen suckers to the surface, which will reforest the area with succulent new growth. There are a few advantages to girdling this stand. The first is that by girdling the stand rather than felling the trees, more of the advanced regeneration will continue to grow, undamaged. There may even be less damage with girdling than by letting the aspen deteriorate slowly because right now, the aspens are snapping off with huge chunks of the tree crashing down at once. If girdled, the tops will hopefully break apart slowly, dropping smaller pieces of wood to the forest floor at any one time, unless a heavy wind hits. The smaller the wood, the less damage will occur to the remaining trees.

Another advantage of girdling would be the retention of "snags." Snags are defined as live or dead trees that are specifically reserved for wildlife use. Saving some trees regardless of their quality provides for even more diversity in wildlife and vegetation. They also add structure for aesthetic purposes. There are 56 birds, 28 mammals, and 13 reptiles and amphibians that use snags as perch trees for singing, hunting, and resting. The tree cavities are also places for resting, nesting, escape, food, and hibernation.

Animals are not the only beneficiaries of snags. The forest benefits because some snags provide a seed source that helps to either maintain a forest or add diversity to it. Snags can add protection to regeneration on the forest floor by providing shade. Snags are also an aesthetic appeal to many people by supplying more form and texture to the site, while providing a backdrop for viewing.

If possible, reserve both hardwood and softwood snags. When conifers make up anywhere from 10 to 40 percent of the snags, a higher density of birds will use the area. But it is more important to concentrate on the presence of snags rather than whether the tree is alive or dead. Having any snags present is beneficial to wildlife.

Although there is no choice on this site as to the species to reserve as snags, not all trees are rated equally as snags. The best snags are considered to be the red pine or white pine. They are the most windfirm. From there maple is next, followed by cedar, birch, balm-of-gilead, aspen, and then balsam fir and white spruce. As you can see, aspen is rather low on the list, but while it stands, it will be providing a valuable function for birds and mammals. Once it topples, the benefits extend to herps and other organisms.

If you girdle enough aspen to stimulate aspen sprouting, no other management will be required. However, if you want to open up microsites, sites too small to stimulate sprouting, but large enough to let in sunlight, these miniature sites could be planted to either basswood or yellow birch. The basswood is fairly shade tolerant, but the yellow birch needs more and more sunlight as it gets bigger. If you were to plant the birch, it would be wise to monitor the site and remove competition as the seedlings increase in diameter.

Woodland Stands

NORTHERN HARDWOODS

Stand Number: 2

Stand Acres: 30.75

Stand Description:

This stand runs almost the entire length of the property. Its only interruption is the tiny aspen stand discussed previously. It is a mixture of sugar maple, basswood, some birch, and aspen. There are also some conifers along the edge of the slope descending to the lake. The stand to the south of the cabin has a lot of birch, while the area to the north has more aspen as a component. Basswood is the dominate species overall. The understory consists of leatherwood, a very supple shrub, and mountain maple. Regeneration is a mixture of sugar maple (there are thousands of them to the south), along with some black ash and a few basswood less than an inch in diameter. There is also a fair amount of ironwood in the understory, but I doubt it will ever attain much diameter.

Once again, the aspen in this stand has been infected with hypoxylon canker and white trunk rot. There also is some blowdown associated with this species.

I saw many deer tracks, beds, and trails throughout both portions of this type.

STAND DATA:

Age:	ranges from 50 years and up
Diameters:	9 to 15 inches DBH
Heights:	60 to 80 feet

Recommended Management Activities:

The aspen and birch are overmature. However, the northern hardwoods range from immature to mature in this stand. Although individual species of trees are beginning to deteriorate, overall, the stand appears to be fairly healthy with little evidence of mortality.

If you would like to intensively manage this stand, you could do a light thinning, removing the aspen if it doesn't have too much rot, birch, and some of the sugar maple, along with a bit of the mature basswood. Removal efforts should concentrate on trees with obvious wounds, double tops, poor form, or thinning

Woodland Stands

crowns. Since the number of trees to be removed would not be very high, if possible, it would be best to combine a hardwood thinning with another sale in the vicinity. The Forest Service may have plans for a sale in the near future if you would like to pursue this option.

To accomplish the hardwood thinning, it would be necessary to contract a logger with specialized equipment in the form of a cut-to-length harvester. These machines have a narrow wheelbase and can maneuver in amongst trees with less damage to the residual stand. Marking individual trees to be removed is advised, unless you decide to have only certain species harvested. If you go about the sale in this manner, marking is not necessary. If the stand is marked, it can be done by any professional forester but would best be done by someone that has the time and ability to also monitor the sale as it progresses.

Please note: even though cut-to-length harvesters are more maneuverable, there will be some damage to the trees left on the site. Slash is also left where the tree is felled, but the machine crushes the wood, creating a "mat" that decomposes more rapidly than conventional logging operations.

Of course, you can do nothing. If the stand is left intact, wildlife species that prefer stands with closed canopies may use the area. Barred owls are one example. This species is a cavity nester so older, decadent trees, such as some of the maple, are preferred. A wide range of migratory songbirds also require older stands for summer habitat. With the adjacent wetlands and numerous small pockets of temporary wetlands, amphibians should be abundant. With the potential use of the area by migratory songbirds, a simple bird blind could provide hours of enjoyment.

Woodland Stands

NORTHERN HARDWOODS

Stand Number: 3

Stand Acres: 5

Stand Description:

This stand is located along the shores of Wabana Lake. There is a very steep slope down to the water but trees have gained a foothold here and seem to be growing well. They include birch, red pine, balsam fir, some aspen, basswood, and white cedar (especially adjacent to the cabin). The site also includes red osier dogwood, bracken fern, and some aspen regeneration, most of it on the top of the slope

Stand Recommendation:

The trees are all ages and sizes. No management is required here, but if you'd like to spot plant some additional seedlings, I would recommend planting some red oak, basswood, or balsam fir. You could even try white cedar. I'm not sure if it would survive or not with the numerous deer in the area. But there is the chance the deer do not traverse this slope and may not come across the seedlings. Planting just a few dozen would not be a large out-of-pocket expense.

Putting in a few more seedlings would be beneficial for a couple of reasons. As the birch continue to mature, decline will soon take its toll on this species, as well as the aspen and balsam fir. By planting prior to decline and death, you will have a head start on regenerating the site. You will also have less chance of soil loss, and it will also improve the aesthetics from the lakeside.

This area still has a number of healthy trees, so tree planting is not urgent, but it is certainly something to keep in mind and possibly tackle within the next few years.