

ORDER NUMBERCo. Code/Seq. No./Yr. of Entry
27 006 2008State of Wisconsin Dept. of Natural Resources
MANAGED FOREST LAW MAP
Form 2450-133 Rev. 04/03**MADISON OFFICE USE ONLY**

Acreage Entered

Owner's Name

McFour Ventures, LLC

☐ Multiple Owners

Town or Village Name

Town of Brockway

County

Jackson

Township #

21

Range #

04

☐ East ☒ West

Section

24

Open Acres

0

Closed Acres

80

LEGEND: Closed Area  Open Area 

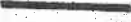
Section Diagram 8" = 1 Mile

Prepared By: Donald Hendershot Date: December 7, 2006

STANDS

- STAND 1 PJ 05-09¹
36 acres
- STAND 2 PJ 00-05²
8 acres
- STAND 3 O 05-11¹/PW 00-05¹
8 acres
- STAND 4 A 00-05²
13 acres
- STAND 5 K
10 acres
- STAND 6 ROW
5 acres

LEGEND

-  Interstate Highway
-  Railroad Track
-  Woods Road
-  Area Entered in MFL
- O/ Other Ownership
- W Wooded
- K Marshland
- LM Pond (Minor Lake)
- I Developed

* ENTIRE AREA WITHIN THIS SECTION IS INCLUDED IN PARCEL A.

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Owner's Name

McFour Ventures, LLC

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Town or Village Name

Town of Brockway

County

Jackson

Township #

21

Range #

03

☐ East ☒ West

Section

19

Open Acres

0

Closed Acres

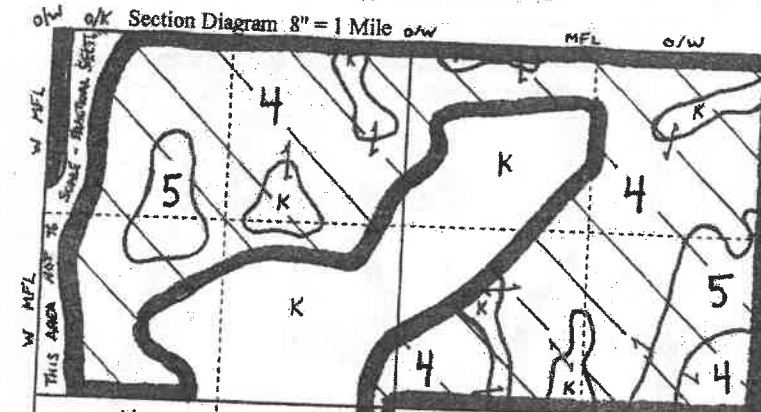
80

LEGEND: Closed Area  Open Area 

Prepared By: Donald Hendershot Date: December 7, 2006



Section Diagram 8" = 1 Mile



STANDS

STAND 4 A 00-05²
74 acres

STAND 5 K
6 acres

LEGEND



Railroad Track



Area Entered in
MFL

O/

Other Ownership

W

Wooded

K

Marshland

LM

Pond (Minor Lake)

PARCEL B

PARCEL C

COUNTY

FOREST

COUNTY

FOREST

COUNTY

FOREST

COUNTY

FOREST

**MANAGED FOREST LANDS
STEWARDSHIP FORESTRY PLAN**

Name(s) and Address of Landowner(s):

McFour Ventures, LLC
c/o Jeff McDonald
N6463 Rye Bluff Road
Black River Falls, WI 54615

Order # 27 006 2008

County: **Jackson**

Town: **21 N; Range 04 W; Section(s) 24**

Town: **21 N; Range 03 W; Section(s) 19**

Town Name: **Brockway**

Contract Length: **25 Years**

Total Plan Acreage: **160**

Starting **January 1, 2008** through **December 31, 2032**

Attached maps show the location of Managed Forest Lands and the areas open or closed to public access.

The purpose of the Managed Forest Land Law is to encourage the growth of future commercial crops through sound forestry practices which consider the objectives of individual property owner, forest aesthetics, wildlife habitat, erosion control, protection of endangered or threatened plants and animals, and compatible recreational activities. Forestry under the law means "managing forest lands and their related resources, including trees and other plants, animals, soil, water and air." To guide the Department in fulfilling this stewardship objective, a statement of the owner's forest management objectives is required in the plan. The following statement has been provided either by the landowner or developed with the assistance of the Department. By signing this plan, the landowner(s) agree to comply with it. (The law specifically prohibits use of Managed Forest Lands for commercial recreation, industry, human residence, grazing of domestic livestock or other uses the Department deems incompatible with the practice of forestry.)

Landowner Objectives for Management of the Enrolled Lands:

The landowner would like to create forest to protect wetlands and wildlife habitat.

The following pages include descriptions of vegetative or physical areas called "stands." Mandatory forestry practices which must be completed by the landowner(s) during the contract period are listed. Optional forestry activities may also be provided. Regarding mandatory practices, failure to complete them by the end of the specified year may result in withdrawal from the program and payment of a substantial withdrawal tax. The plan may be revised only with consent of both the landowner and the Department. If timber is to be harvested, a cutting notice on Department forms is required at least 30 days prior to cutting. Cutting under the notice may be commenced within one year of the date approved by the Department. Details concerning harvests, taxes, transfers, and other terms of the Managed Forest Law can be found under Chapter 77, subchapter IV, Wis. Stats., and in Chapter NR 46 of the Wisconsin Administrative Code. (Copies of the law or rules are available from the Department upon request. Landowners may also contact their local DNR forester for assistance.)

Key to Forest Cover Type Symbols (ex: A 5-11³):

Key to Symbols

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Order # 27 006 2008

Productive		Non-Productive or Non-Forest	
A	Aspen	AX	Off-Site Aspen
BH	Bottomland Hardwoods	F	Farmland
BW	White Birch	FG	Grazed Pasture
C	Cedar	G	Grass
CH	Central Hardwoods, Locust	GH	Herbaceous Vegetation
FS	Fir-Spruce, White Spruce	GLS	Low Growing Shrubs
HH	Hemlock Hardwood	I	Residential or Commercial
MR	Red Maple	IA	Parking Area
NH	Northern Hardwood	ICG	Campground
O	Oak	IP	Picnic Area
OX	Scrub Oak	ITH	Nature/Hiking Trail
PJ	Jack Pine	ITM	Motorized Vehicle Trail
PR	Red Pine, Scotch Pine	ITS	Snowmobile/Horse Trail
PW	White Pine	K	Keg
SB	Black Spruce	KB	Muskeg Bog
SC	Swamp Conifer	KEV	Emergent Vegetation
SH	Swamp Hardwood	KG	Noncommercial Lowland Grass
SW	White Spruce		
T	Tamarack, European Larch		
W	Black Walnut		
		KH	Noncommercial Herbaceous Vegetation
		L	Lake
		LB	Lowland Brush
		LBA	Tag Alder
		LBB	Bog Birch
		LBD	Dogwood
		LBW	Shrub Willow
		LM	Minor Lake
		LMS	Minor Stream
		ROW	Right of Way
		SX	Noncommercial Swamp
		SXC	Noncommercial Cedar
		SXSB	Noncommercial Black Spruce
		SXT	Noncommercial Tamarack
		UB	Upland Brush
		Z	Rock Outcrop

Key to Size Classes (DBH -Diameter in inches, ex: A 5-11³):

0-1	Seedlings	5-9 / 5-11	Pole-timber (Conifers/Hardwoods)
1-5	Saplings	9-15 / 11-15	Small Saw-timber (Conifers/Hardwoods)
0-5	Seedlings & Saplings	15+	Large Saw-timber

Key to Densities (shown by superscript numbers after the size class, ex: A 5-11³): (Seedlings/saplings per acre or volume per acre)

Code	Seedlings	Saplings	Poles	Small Saw-timber	Large Saw-timber
1 (poor)	1-600	1-300	3-7 cords	1.0-1.5 MBF	1.0-2.5 MBF
2 (medium)	601-1500	301-900	8-13 cords	1.51-2.5 MBF	2.51-5.0 MBF
3 (good)	1,501+	901+	14-20 cords	2.51-4.0 MBF	5.01-8.0 MBF
4 (very good)	NA	NA	21-30 cords	4.01-6.0 MBF	8.01-10.0 MBF
5 (excellent)	NA	NA	31+ cords	6.01+ MBF	10.01+ MBF

Managed Forest Law Reference

Transfer of Ownership:

Land must be transferred as an entire parcel or must be a complete quarter-quarter section, government lot or fractional lot. Otherwise, withdrawal penalties will be applied. Complete DNR form 2450-159 within 30 days of transfer.

Public Access:

If land is designated "open", then public hunting, fishing, sightseeing, hiking, and cross county skiing must be allowed. MFL map indicates the areas designated "open" or "closed".

Estimated Acreage Payment:

Following is the estimated payment per acre for 2005 thru 2007; rates will be adjusted for 2008 and every 5th year thereafter.

Open Lands: \$1.46 per acre

Closed Lands: \$7.28 per acre

Cutting Notice:

DNR Cutting Notice. Form 2450-136 must be completed 30 days prior to cutting. Cutting must be in accordance with approved management plan. Within 30 days after completion of cutting, or within one year of Cutting Notice, a Cutting Report must be submitted. Landowners are billed for 5% of the value of merchantable timber based on DNR stumpage rates in effect (excludes firewood for personal home consumption).

County Cutting Notice (Section 26.03, Wis. Stats.). A written declaration must be filed with the County Clerk prior to cutting any forest products.

Non-Productivity:

Throughout this MFL order, at least 80% of each parcel of land must continue to produce a minimum of 20 cubic feet of merchantable timber per acre per year. If a parcel does not meet the productivity criteria for any reason in the future, the parcel must be immediately brought up to productivity standards or it will be involuntarily withdrawn and penalties assessed.

Visit <http://www.dnr.wi.gov/orq/land/forestry> to become familiar with what the DNR has available online.

STEWARDSHIP FORESTRY PLAN
MANAGED FOREST LANDS

ORDER # 27 006 2008

General Information

General Property Description

The property is located in the Town of Brockway, Jackson County, Wisconsin, approximately 1 mile east of the city of Black River Falls.

The land being entered in MFL is part of a larger ownership that includes portions of the marshlands surrounding the land.

The MFL entry consists of 3 land parcels that are separated by marshlands. Parcel A includes *Stands 1, 2, 3 and part of 4*. Parcel B includes *part of Stand 4 and part of Stand 5*. Parcel C includes *part of Stand 5*. Productivity for each parcel is as follows: Parcel A is 81% productive, Parcel B is 90% productive, and Parcel C is 100 % productive.

The land is accessed by a woods road that leads west from Julianna Road.

A railroad track and a utility line run through the property.

The surrounding landscape is woodlands and marshlands. Developed areas lie to the northwest of the property.

Soils

The following table describes the soils present on the property. See the Managed Forest Law Map for the location of the stand that is associated with each soil type.

Soil Series	Texture	Substrate	Drainage	Depth	Fertility	Erosion Hazard	Associated Stand	Tree Species Suitable to Grow ¹
Dawsil	Mucky Peat	Organic Material	Very Poorly Drained	Very Deep - water table at or near surface	Poor	Rutting when wet	Stand 5	Black Spruce, Tamarack
Ironrun-Ponycreek (complex)	Sand to Mucky Sand	Alluvium (river deposited) and Organic Material	Somewhat Poorly Drained to Poorly Drained	Very Deep - water table near surface	Poor to Medium	Rutting when wet	Stand 1, 2, 3, 4, 6	Aspen, White Birch, Red Maple, Black Ash, Pin Oak, Swamp White Oak, Red Pine, White Pine, White Spruce, Tamarack
Ponycreek-Dawsil (complex)	Mucky Peat to Mucky Sand	Organic Material	Poorly Drained to Very Poorly Drained	Very Deep - water table at or near surface	Poor	Rutting when wet	Stand 4, 5	Jack Pine, Aspen, White Birch, White Pine, Black Ash, Red Maple, Black Spruce, Tamarack
Rockdam	Sand	Alluvium (river deposited)	Moderately Well Drained	Very Deep	Poor	Moderate - loose sand	Stand 1, 2	Jack Pine, White Pine, Red Pine, Pin Oak, White Oak,

¹ Other tree species that have similar growth and site requirements as those listed are also suitable to grow.

Wisconsin's Forestry Best Management Practices (BMP's)

BMP's are guidelines and practices that aim to protect soil and water resources in the application of forestry activities. They must be followed while the land is enrolled in the MFL program.

Of specific concern on the property are the woods road, and operation of equipment on wet and sandy soils.

To mitigate adverse impacts (rutting and soil compaction) to wet soils be sure to operate machinery only when the soil is frozen or dry.

On excessively sandy soil, reduce exposure to wind erosion by maintaining vegetative cover.

As woods roads and trails are maintained and improved, it is good practice to seed and mulch trails with a mix of fast-growing grass and perennial plants. A good generic mix is 8 lbs. per acre white Dutch clover, 5 lbs. per acre perennial rye grass, 8 lbs. per acre annual rye grass, and 10 lbs. per acre creeping red fescue (total of 31 lbs. per acre). Other seed mixes can be developed to include all native grass and plant species, or grass and plant species that attract specific species of wildlife.

Oak Wilt

Oak wilt is a fungal disease that infects and kills oak trees. It moves from infected oak trees to healthy oak trees in two ways; by moving through the roots of trees that have become interconnected through root grafts and by entering the tree through open wounds. Do not cut or prune oak trees during the period of April 15 to July 1. At this time sap flow is greatest and the oak wilt disease is most likely to be transported by sap-feeding insects.

Firewood

Dead, down and obviously defective trees may be cut and removed for personal-use firewood. Two to four snag (dead) and live den (hollow) type trees per acre should be left throughout the stands for use by wildlife.

Gypsy Moth Considerations

Gypsy moth, an invasive species, is an insect that defoliates favored trees, such as oak, aspen, basswood, paper birch, tamarack, and willow. Pine, spruce, and hemlock can be defoliated if in proximity to favored hardwoods. You can expect to experience damage from gypsy moth within the length of your MFL order. Tree mortality often follows defoliation. Heavy defoliation from gypsy moth outbreaks is expected to occur about every 10 years. In the first wave of outbreaks, 20% of the area defoliated can be expected to have greater than 50% tree mortality. Most mortality occurs in suppressed or weak (low vigor) trees of species preferred by gypsy moth.

Despite gypsy moth, you can grow oak and other favored species. Defoliation of your forest can result in the death of some trees, but most trees usually fully recover. Mortality is typically the result of multiple stresses occurring together. Defoliation, drought, frost, windstorms, other insects, diseases, and over-crowding are all tree stressors. Trees with low reserves of starch in their roots are also less able to recover from stresses. Managing your forest to keep trees healthy is your best defense in reducing losses from gypsy moth outbreaks. Completing the regularly scheduled thinnings that are required in your management plan will promote an even rate of growth and minimize dramatic surges in growth that can deplete root reserves. Thinning has been proven to reduce mortality when the stands were thinned 4-10 years prior to defoliation. Thinning can cause short-term stress as trees draw on root reserves to support top growth. If possible, avoid thinning within one or two growing seasons of heavy defoliation or drought.

To avoid stacking stresses and risking significant mortality in your stand, conduct a survey of gypsy moth egg masses to predict the likelihood of defoliation prior to establishing a partial harvest or thinning. If sampling indicates a density of gypsy moth egg masses greater than 1,000 per acre, delay harvesting or thinning until the outbreak has passed and the trees have recovered. Aerial spraying to suppress an outbreak may be an option for protecting regeneration or high-value timber. If defoliation does result in significant mortality in a stand, a salvage harvest may be appropriate. In the event that this happens, contact your DNR forester for consultation. Information on gypsy moth is available from your local DNR forester, by accessing gypsymoth.wi.gov, or by calling (800) 642-MOTH.

Threatened & Endangered Resources

The statewide Natural Heritage Inventory was reviewed for the property. This database catalogs the presence of rare, threatened, and endangered species, as well as plants and animals of special concern.

The showy lady's-slipper and Farwell's water-milfoil, both plant species, were documented as having occurred on the property.

Showy lady's-slipper grows in forested wetlands and areas around wet seeps. Farwell's water-milfoil grows in lakes, streams, ponds, and shallow reservoirs. It is unlikely that the mandatory or recommended practices prescribed in this plan will have adverse affects on these species.

The following species were documented as having occurred within the vicinity of the property.

Plants – rock clubmoss, shadowy goldenrod, sand violet, hidden-fruited bladderwort

Butterfly – frosted elfin, Gorgone checker spot, Karner blue

Other – tiger beetle, red-shouldered hawk, Blanding's turtle, phlox moth, short-winged grasshopper

It is unlikely that the mandatory or recommended practices prescribed in this plan will have adverse affects on the tiger beetle, short-winged grasshopper, Gorgone checker spot butterfly, or the plant species described above.

The frosted elfin and Karner blue butterflies are dependant on the plant, wild lupine. Wild lupine is the larval host plant for these species. Phlox moth often co-occurs with the Karner blue butterfly. The larval host plant for the phlox moth is the downy phlox plant. The key to protection of these species is to ensure protection of the larval host plants. If wild lupine or downy phlox is found on the property protect these species as best as possible. Avoid applying herbicides in areas where these plants are growing. If possible, conduct logging operations in the winter months when the plants are dormant. Maintaining gaps in the forest canopy will provide the semi-shaded growing conditions that these plants need.

The red-shouldered hawk lives in bottomland hardwood forests, mixed hardwood and conifer forests, and the wooded margins of marshes. It nests in large trees and constructs a stick-nest that is 2-3 feet wide. If a suspected red-shouldered hawk nest is found avoid disturbing the nest and contact your forester. Mitigating activities will include avoiding logging activities around the nest site during nesting and fledging period, and maintaining adequate tree densities in the area surrounding the nest.

The Blanding's turtle lives in wet meadows, marshes, and forests as well as open-water marshes, ponds, and slow-moving rivers. It nests in sandy areas up to 1½ miles from its preferred aquatic habitat. To avoid adverse impacts to this species avoid locating log landings in sandy openings during the summer months when this species is breeding.

If you would like to learn more about these species, please contact your forester or the WI DNR Endangered Resources program.

Stand Information

The property was visited in October and November of 2006. Vegetative plots were examined and observations made on the overall timber and forest condition.

The area was subdivided into several stands. A "stand" is a section of trees with similar characteristics. Refer to the map for location of each stand.

A few technical forestry terms are used throughout this section. A glossary of terms is attached as *Appendix A*.

STAND 1

PJ 05-09¹

36 acres

Description

Jack pine is the primary tree species growing in the stand. A few red maple, aspen, and white pine are also growing.

The stand density is 52 square feet of basal area per acre. Present volume is 980 board feet of saw-timber per acre and 6 cords of pole-timber per acre. The trees are about 33 years old (year of origin 1973) with an average height of 43 feet. The average size of the pole-timber is 8 inches DBH. Site quality is poor to medium and can be categorized as dry-mesic in the habitat type classification system. The trees are good quality and growing well. The site is suited to growing jack pine. The estimated rotation age for jack pine growing on this site is 55-60 years.

The understory is dense with buckthorn. A few white pine, oak and jack pine seedlings and saplings are growing. There are small grassy inclusions throughout the stand.

Shrubs and ground plants growing in the stand include swamp dewberry, clubmoss, sweet fern, blueberry, grass, and sedges.

The topography is flat with adjoining marshlands.

Stand Objective

Manage the stand for jack pine. Maximize production of wood fiber. Maintain good quality wildlife habitat.

Grow the stand as an even-aged forest. Harvest the trees once they reach a rotation age of 55 years (year 2028). Use the clear-cut method with the objective of naturally regenerating jack pine. During the harvest scatter the slash and lop it as close to the ground as possible. This will enable the cones to open and the seeds to germinate. Grow the next crop of trees until they reach rotation age without intervention.

Promote white pines within the stand for wildlife habitat diversity. White pines are favored as roost trees for turkey and provide food and cover for songbirds.

Mandatory Practices

By 2028, clear-cut the stand. Cut all trees greater than 2-inches DBH. Scatter the slash over the entire site. If possible, lightly disturb or scarify the soil to allow seeds to germinate on bare mineral soil. *Wisconsin's Forestry Best Management Practices* must be followed.

By 2031, conduct a regeneration survey and plant seedlings to bring the stocking level up to 800 trees per acre. If buckthorn has occupied the site, control measures will be necessary. Mechanical mowing and the application of an appropriate herbicide will be required. Following these control measures, plant at least 800 trees per acre in order to bring the stocking level up to the minimum medium density as required under MFL. Plant jack pine, red pine or white pine.

Non-Mandatory & Recommended Practices

During the 2028 harvest, leave any white pines that are growing in the stand to provide wildlife habitat diversity.

If trees are planted, consider planting up to 900 trees per acre at a spacing of 6-8 feet in order to achieve optimal stand growth and development.

STAND 2

PJ 00-05²

8 acres

Description

Jack pine is the primary tree species growing in the stand. A few pin oak and white pine are also growing.

The stand density is 825 trees (saplings) per acre. The trees are about 20 years old (year of origin 1986) with an average height of 20 feet. The average size is 3 inches DBH. Site quality is poor and can be categorized as dry-mesic in the habitat type classification system. The trees are good quality and growing well. The site is suited to growing jack pine. The estimated rotation age for jack pine growing on this site is 55 to 60 years.

The understory is open with very few ground plants growing. There are small grassy inclusions throughout the stand and some areas of dense buckthorn brush surrounding the stand.

The topography is flat.

Stand Objective

Manage the stand for jack pine. Maximize production of wood fiber.

Grow the stand as an even-aged forest, without intervention. Harvest the trees once they reach a rotation age of 55 years (year 2041), which is beyond the scope of this plan.

Mandatory Practices

No mandatory practices are required for this stand.

Non-Mandatory & Recommended Practices

See *Recommended Practices for All Stands*.

STAND 3

O 05-11¹/PW 00-05¹

8 acres

Description

Pin oak and white oak are the primary tree species growing in the overstory of this stand.

White pine, jack pine, and oak seedlings are growing in openings that are located throughout the stand. These openings were created when the jack pine was harvested from the stand in 2004.

Within the areas of oak pole-timber the basal area is approximately 40-50 square feet per acre. Present volume is 225 board feet of saw-timber per acre and 5 cords of pole-timber per acre. The trees are about 41 years old (year of origin 1965) with an average height of 54 feet. The average size of the pole-timber is 9 inches DBH. Site quality is poor to medium and can be categorized as dry-mesic in the habitat type classification system. The trees are fair quality and growing well. The site is suited to growing pin oak, white oak, jack pine, and white pine. The estimated rotation age for oaks growing on this site is 70-80 years. The estimated rotation age for jack pine growing on this site is 55-60 years.

Shrubs and ground plants growing in the stand include blueberry, buckthorn, swamp dewberry, grass, and sedges.

The topography is flat with adjoining marshlands.

Stand Objective

Grow white pine and jack pine within the openings for future wood fiber and sawlog products. Maintain the oaks to provide wildlife habitat.

Establish at least 800 white pine, jack pine, or oak seedlings per acre outside of the areas of overstory oak. Supplemental hand planting and control of competing buckthorn brush may be needed. Once these areas are fully stocked allow them to grow, without intervention, until they reach rotation age, which will be beyond the scope of this plan.

Mandatory Practices

In 2008, conduct a regeneration survey and plant seedlings to bring the stocking level up to 800 trees per acre. If buckthorn has occupied the site, control measures will be necessary. Mechanical mowing and the application of an appropriate herbicide will be required. Following these control measures, plant at least 800 trees per acre in order to bring the stocking level up to the minimum medium density as required under MFL. Plant jack pine, red pine or white pine.

Non-Mandatory & Recommended Practices

If trees are planted, consider planting up to 900 trees per acre at a spacing of 6-8 feet in order to achieve optimal stand growth and development.

During the 2028 harvest of Stand 1, harvest the areas of oak within this stand as these trees will be approaching maturity. Cut all trees greater than 2 inches DBH. White oaks may be left for wildlife habitat.

STAND 4

A 00-05²

87 acres

Description

Aspen, pin oak, white oak, and jack pine are the primary tree species growing in the stand, with aspen being dominant. Other species growing include white birch, red maple, red pine, and white pine.

The stand density is 600 trees (saplings) per acre. The trees are about 28 years old (year of origin 1978) with an average height of 45 feet. The average size is 4 inches DBH. Site quality is poor to medium and can be categorized as dry-mesic in the habitat type classification system. The trees are good quality and growing well. The site is suited to growing aspen, jack pine, and oak. The estimated rotation age for aspen growing on this site is 45-55 years.

There are small grassy inclusions as well as a few small wet meadows throughout the stand.

Shrubs and ground plants growing in the stand include hazelnuts, alder, swamp dewberry, clubmoss, sweet fern, blueberry, ground pine, wintergreen, grass, and sedges. Some buckthorn is present however, much less than other areas of the property.

The topography is flat with adjoining marshlands.

Stand Objective

Manage the stand for aspen. Maximize production of wood fiber. Maintain good quality wildlife habitat.

Grow the stand as an even-aged forest. Harvest the trees once they reach a rotation age of 50 years (year 2028). At that time regenerate the stand by clear-cut and coppice. Grow the next crop of trees, without intervention, until they reach rotation age.

Retain white oak trees and scattered white pine trees during harvest operations. White oak acorns are a premiere food source for many species of wildlife. White pines are favored as roost trees for turkey and provide food and cover for songbirds.

Mandatory Practices

In 2028, conduct a regeneration harvest. Cut all trees greater than 2 inches DBH. *Wisconsin's Forestry Best Management Practices* must be followed.

Non-Mandatory & Recommended Practices

During the prescribed harvest, leave white oak and white pine trees for wildlife habitat diversity.

Due to the size of this stand, the prescribed regeneration harvest may be conducted in 2 to 3 consecutive harvests at 10 year intervals in order to achieve greater age class diversity. As the trees grow and the stand matures, different and unique habitat needs are fulfilled for a variety of wildlife species. For example, white-tailed deer feed on young aspen trees and ruffed grouse feed on the buds of mature aspen trees. Therefore, this practice will provide a greater range of wildlife habitat over a longer time period. Contact your DNR forester for specific deadlines that will be required if you would like to utilize this option. For example, cut 1/3 of the stand in 2018, cut 1/3 in 2028 and cut 1/3 in 2038 (beyond the scope of this plan).

STAND 5

K
16 acres

Description

The stand is made up of peat moss and marsh grasses. Wet bog-like conditions are present throughout.

Stand Objective

The stand is non-productive land.

Maintain good quality wildlife habitat by allowing the stand to develop naturally.

Mandatory Practices

No mandatory practices are required for this stand.

Non-Mandatory & Recommended Practices

See *Recommended Practices for All Stands*.

STAND 6

ROW
5 acres

Description

The stand is maintained as a right-of-way for a utility line. Moss, grass, alder, buckthorn, and willow brush are growing in the stand. Wildlife food plots are also planted and maintained.

Stand Objective

The stand is non-productive land.

Grow low vegetation that will not interfere with the utility line.

Mandatory Practices

No mandatory practices are required for this stand.

Non-Mandatory & Recommended Practices

Continue to plant and maintain wildlife food plots. See *Recommended Practices for All Stands*.

Recommendations for All Stands

Property Lines: Mark and maintain property lines regularly.

Trails: Develop and maintain trails throughout the woodlot that can be used for woods work and recreation. Follow Wisconsin's *Forestry Best Management Practices* when planning, developing, or maintaining trails.

Invasive Species: Take steps to control the buckthorn that is growing on the property. This shrub grows and reproduces aggressively and shades out native plants and commercially valuable tree species. It may be preferable to conduct treatment operations prior to harvesting a stand as it will likely interfere with natural tree regeneration after harvest operations. Conduct treatments by mowing, cutting, and/or applying an appropriate herbicide. See enclosed information.

Wildlife Structures: Construct, erect, and maintain wood duck houses near wetlands and along streams. Erect and maintain bluebird houses in forest openings and along the edges of fields.

Brush Piles: Construct brush piles for wildlife shelters from small woody debris after cutting operations.

Tree Health: Maintaining healthy and vigorous stands will minimize damage due to disease infestations or insect infestation such as gypsy moth.

Woody Debris: Existing large diameter woody debris on the ground could be retained for wildlife to use as nesting, shelter, food storage, drumming, sunning, and preening sites.

Professional Assistance and Cost-sharing: Contact a professional forester for assistance in establishing and implementing the practices that are outlined in this plan. Financial assistance may be available from the WI DNR for silvicultural projects such as tree planting and controlling competing or invasive vegetation.

Enclosed information:

- ❖ Wisconsin's *Forestry Best Management Practices for Water Quality: Field Manual for Loggers, Landowners and Land Managers*.
- ❖ *Control of Invasive Plants* by Mary Ann Kroehn Buenzow, CF, DNR Forester
- ❖ *Buckthorn Identification & Control* excerpt from Invasive Plants Association of Wisconsin, www.ipaw.org.

MANAGED FOREST LANDS
STEWARDSHIP FORESTRY PLAN

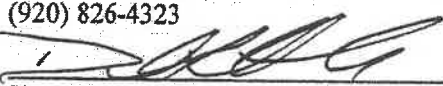
Order # 27 006 2008

Summary of Practices

Year	Stand	Acres	Mandatory	Non-Mandatory	Practice
2008	3	8	X		Conduct regeneration survey and plant additional seedlings. Control buckthorn brush if necessary.
2028	1	36	X		Conduct regeneration harvest.
	4	87	X		Conduct regeneration harvest.
2029	1, 4	125		X	Construct wildlife brush piles from logging slash.
2031	1	38	X		Conduct regeneration survey and plant additional seedlings. Control buckthorn brush if necessary.
On-going	All	All		X	Maintain trails.
				X	Erect and maintain wood duck boxes and blue bird houses.
				X	Maintain property lines.
				X	Cut dead, down, and defective trees for personal-use firewood. Leave 2-4 snags per acre.
			X		Do not cut, prune, or damage oaks, April 15-July 1
			X		Follow Wisconsin's Forestry Best Management Practices.

Provide the name, address, and telephone number of the preparer of this plan:

Donald L. Hendershot, CF
Consulting Forester
LivingRoot Land & Timber, LLC
5071 Snapdragon Circle
Little Suamico, WI 54141
(920) 826-4323


Signature: Donald L. Hendershot, CF

DEC 20, 2006
Date Signed

The owner hereby agrees to comply with the terms of this forest stewardship management plan and the conditions of subch. VI, Ch. 77, Wis. Stats., and Ch. NR 46, Wis. Adm. Code. The landowner further agrees to amendment of the Petition for Designation to conform with the landowner objectives and map as included in this plan.

To be signed by the President and Secretary of a corporation or by the individual landowners (or legal agent, if any) as listed on the deed or other instrument of title.

Signature: Ned A. McDonald

Date Signed

Signature: Patricia M. Glass

Date Signed

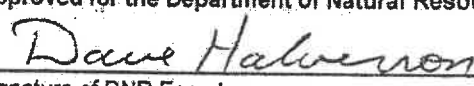
Signature: Monte J. McDonald

Date Signed

Signature: Douglas H. McDonald

Date Signed

Approved for the Department of Natural Resources by:


Signature of DNR Forester

1-10-07
Date Signed

APPENDIX A

Glossary of Forestry Terms

Basal Area – 1) The cross-sectional area of a single stem, including bark, measured at breast height (4.5 feet above ground). 2) The cross-sectional area of all stems in a stand expressed per unit of land area (per acre).

Board Foot – The amount of wood contained in an unfinished board 1 inch thick, 12 inches long, and 12 inches wide.

Cavity Tree – A (partially) hollow tree used by wildlife (e.g. roosting, nesting, or reproduction).

Cord – A stack of wood that measures 4 feet x 4 feet x 8 feet (128 ft³).

Crop Tree – 1) Any tree selected to become a component of a future commercial harvest. 2) Any tree that a landowner wants to retain based on landowner goals and objectives.

DBH (Diameter at Breast Height) – The diameter of the stem of a tree measured at 4.5 feet from the ground (on the uphill side of the tree).

Even-aged Stand – A stand where the trees have only small differences in their ages (a single age class). By convention, the spread of ages does not differ by more than 20% of the intended rotation.

Growing Stock – All the trees growing in a forest or in a specific part of it, usually commercial species, meeting specified standards of size, quality, and vigor, and generally expressed in terms of number or volume.

Overstory – That portion of the trees in a forest forming the uppermost canopy layer.

Regeneration – 1) The seedling or saplings existing in a stand. 2) The act of renewing tree cover by establishing young trees naturally or artificially.

Rotation – In even-aged silviculture systems, the period between regeneration establishment and final cutting. Rotation may be based on many criteria including culmination of mean annual increment, mean size, age, attainment of particular minimum physical or value growth rate, and biological conditions.

Release – 1) A treatment designed to free young trees (not past the sapling stage) from undesirable, usually overtopping, competing vegetation. 2) To relieve (set free) from restraint, confinement, oppression, or burden.

Selection Harvest – A silvicultural method designed to regenerate and maintain uneven-aged stands by removing some trees at regular intervals. Trees are removed in various size classes, either singly or in small groups. An uneven-aged stand is maintained by periodically regenerating new age classes while manipulating the overstory structure to facilitate continual development of quality growing stock. Regeneration cuts, thinning, and harvesting usually occur simultaneously.

Shelterwood Harvest – A silvicultural method designed to regenerate a stand by manipulating the overstory and understory to create conditions favorable for the establishment and survival of desirable tree species. Regenerates an even-aged stand and normally involves removal of all or most of the overstory once the new stand is established. The overstory services to modify understory conditions, create a favorable environment for reproduction, and provide a seed source. The system is characterized by a preparatory cut (optional), seeding cut(s), and overstory removal.

Snag – A standing, generally un-merchantable, dead tree from which the leaves and most of the branches have fallen.

Stand Density – 1) A quantitative measure of stocking expressed either absolutely in terms of numbers of trees, basal area, or volume per unit area or relative to some standard condition. 2) A measure of the degree of crowding of trees within stocked areas commonly expressed by various growing space ratios.

Stocking – 1) An indication of growing-space occupancy relative to a preestablished standard. Common indices of stocking are based on percent occupancy, basal area, relative density, stand density index, and crown competition factor. 2) The amount of anything on a given area, particularly in relation to what is considered optimum.

Thinning – A cultural treatment made to reduce stand density of trees primarily to improve growth, enhance forest health, or recover potential mortality.

Understory – All forest vegetation growing under an overstory.