

**Managed Forest Lands
STEWARDSHIP FORESTRY PLAN**

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ORDER # 27-010-2006

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

**Arthur Jarstad Revocable Trust
1327 Monterey Lane
Janesville, WI 53546**

County: **Jackson**

Town Name: **Northfield**

Town: **23N, Range 6W, Section 10**

Total Plan Acreage: **80**

Contract Length: **25 Years**

Starting January 1, 2006 through December 31, 2030

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 owners, 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, statements of the owner's forest management objectives are required in the plans. 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:

Landowner wishes to maintain good forestry practices, maintain wildlife habitat, and allow private hunting opportunities on the property.

The following pages include descriptions of vegetative or physical areas called "stands." Mandatory forestry practices that 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.)

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Key to Forest Cover Type Symbols

Productive

A	Aspen
BH	Bottomland Hardwoods
BW	White Birch
C	Cedar
CH	Central hardwoods, locust
FS	Fir-spruce, white spruce
MR	Red Maple
NH	Northern Hardwoods
O	Oak
OX	Scrub Oak
PJ	Jack Pine
PR	Red Pine, Scotch Pine
PW	White Pine
SB	Black Spruce
SC	Swamp Conifer
SH	Swamp Hardwood
T	Tamarack
W	Wooded (one or more types)

Non-Productive or Non-Forest

AX	Off-site Aspen	LB	Lowland Brush
F	Farmland/crop land	LBA	Tag Alder
FG	Grazed Pasture	LBB	Bog Birch
G	Grass	LBD	Dogwood
GH	Herbaceous vegetation	LBW	Shrub Willow
GLS	Low growing shrubs	LM	Minor Lake
I	Residential or commercial	LMS	Minor Stream
IA	Parking Area	O/	Other Ownership
ICG	Campground	P	Pasture
K	Keg/marsh	ROW	Right of Way
KB	Muskeg bog	SX	Noncommercial Swamp
KEV	Emergent Vegetation	SXC	Noncommercial Cedar
KG	Noncommercial lowland grass	SXSB	Noncommercial Bl. Spruce
KH	Noncommercial Herbaceous vegetation	SXT	Noncommercial Tamarack
L	Lake	UB	Upland Brush
		Z	Rock Outcrop

Key to Size Classes (tree diameters in inches):

0-1" ... Seedlings	1-5" ... Saplings	9-15" or 11-15" Small Sawtimber (Conifers or Hardwoods)
5-9" or 5-11" Pole-timber (Conifers or Hardwoods)		15+ Large Sawtimber

Key to Stocking Levels (symbols shown by superscripts after the size class, ex. 5 - 11²):

Symbol	Density	Volume (Cords or Board Feet / Acre)				
		Pole-timber cords	Small Sawtimber board feet	Large Sawtimber board feet	Seedlings per acre	Saplings per acre
1	Poor	1-7	1,000-1,500	1,000-2,500	1-600	1-300
2	Medium	8-13	1,501-2,500	2,501-5,000	601-1,500	301-900
3	Good	14-20	2,501-4,000	5,001-8,000	1501+	901+
4	Very Good	21-30	4,001-6,000	8,001-10,000		
5	Excellent	31+	6,001+	10,001+		

County Cutting Notice (Section 26.03, Wis. Stats.):

A written declaration must be filed with the County Clerk prior to cutting any forest products. Note this is a separate notice from that filed with the Department as required under the Managed Forest Law (see below).

Forest Management Assistance:

Your DNR Forester, as well as Cooperating Consultant Foresters, are available to assist in the implementation or establishment of all forest stewardship practices outlined in your Plan. **It is highly recommended that landowners seek the assistance of a professional Forester before cutting any harvestable timber, both to assure that the timber is cut within sound management guidelines and to protect the landowners financial interests.**

Managed Forest Law Reference

Transfer of Ownership:

Only an entire parcel or a complete quarter-quarter section, government lot or fractional lot can be transferred, or withdrawal penalties will be applied. Complete DNR form 2450-159 within 30 days of purchase.

Public Access:

If designated open", then public hunting, fishing, sightseeing, hiking, and cross country skiing must be allowed. The MFL map indicates the area designated open or closed.

Acreage Payment:

"Open" - \$.83/acre/year. "Closed" - \$1.95/acre/year. Adjusted in 2002 and every 5th year thereafter.

Cutting Notice:

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

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Property Overview

Location and description:

This management plan covers 80 acres of woodland located in the NENE and NENW, Section 10, Township 23 North, Range 6 West (Town of Northfield), Jackson County. The property is located northeast of the village of Northfield on the east side of the Wisconsin DNR Northfield Lakes property. Access is provided by taking Section One Road north off of State Highway 121 for three miles, then left on Evenson Lane for about one half mile. Evenson lane turns into a woods trail that follows just south of the property boundary. At that point it exits the property to the north onto an adjacent ownership. There is a small trailer parked along the trail in the northeast corner of the property that may be used as a hunting camp. There is a small stream drainage that cuts across the far northeast corner of the property.

Ecological Landscape and Land Type Association:

This property lies in western Jackson County in the Western Coulees and Ridges Ecological Landscape. The Land Type Association is Boone Valleys and Hills. It consists of highly eroded driftless topography and a relatively extensive forested landscape with relief of several hundred feet from ridge tops to valley bottoms. The bedrock is Paleozoic marine sandstone covered with windblown silts and sands. During the last period of glaciation, ice did not advance over this area leaving intact the "coulee" topography that extends across much of western Wisconsin.

Soils and Topography:

The soils on this property fall into the Urne-Council-LaFarge Association. These are loam and silt soils that are moderately deep to very deep, gently sloping to steep, and well drained.

Stand Information:

This management plan addresses the property as a single forest stand. A stand is an area that is similar in vegetative cover and will be managed as a unit. The stand is provided with a stand description, a management objective, and mandatory practices, along with alternatives. Non-mandatory recommended practices are also suggested. Mandatory and recommended practices are intended to meet the overall objectives for the property. Please note that there may be small areas that have characteristics different from the primary stand. These areas are too small to manage separately, but will be mentioned in the discussion of the stand.

Natural Heritage Inventory:

A review of the Wisconsin Natural Heritage Inventory (NHI) was completed for your property. No rare, threatened or endangered plants or animals were identified on the property based on the current NHI database. If any are identified the management prescriptions may need to be altered to protect or preserve them.

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General Forestry Issues

Water Quality, Soil Erosion, and Road Construction:

Best Management Practices (BMP's for Water Quality to minimize soil erosion are to be followed for all mandatory practices in the plan. Forest management practices to protect surface and ground water from sedimentation and pollution include the following list...

- Roads and trails used during harvesting operations can only be used when the ground is firm or frozen. Trails should be smoothed out, properly graded to ensure surface drainage and seeded with acceptable vegetation as soon as the forestry project is complete.
- If new trails are constructed, select locations that allow for drainage away from the trail. Skid trails must not follow natural waterways.
- Road and trail grades must not exceed 10% slope unless drainage structures like water bars, broad-based dips or culverts are spaced at intervals close enough to minimize water flow volume and speed.
- Make regular trail inspections. Reshape surfaces when necessary and keep drainage structures maintained properly.
- Do not operate equipment within 15 feet of small streams, and only when the soil is frozen or dry. Maintain a 35 foot riparian management zone along the stream

Seed road and trail surfaces with the following seed mix at a rate of 40 lb. per acre: 10 lb. white Dutch clover, 5 lb. perennial rye, 10 lb. annual rye, and 15 lb. creeping red fescue. *One mile of woods trail 12 ft. wide will normally equal about 1.5 acres.*

Contact your local DNR forester for additional information.

Forest Insects

Gypsy Moth:

Gypsy moth, an undesirable, non-native insect, defoliates favored trees, such as oaks, aspens, basswood, paper birch, tamarack and willows, along with associated pines. The insect has been found in Jackson County. Heavy defoliation from gypsy moth may occur on your property within the length of your MFL contract. Tree mortality in suppressed or weak trees often follows defoliation depending on the severity and repetition of defoliation.

Despite the presence of gypsy moth, you can grow oak and other favored tree species. Defoliation of your forest can result in the death of some trees, but most trees usually recover fully. Managing your forest to keep trees healthy is your best defense in reducing losses from gypsy moth outbreaks. Completing the regularly scheduled harvests and thinnings that are required in your management plan will help keep your hardwood stands healthy and vigorous.

If defoliation does cause significant mortality in a stand, a salvage harvest may be appropriate. Consult with your DNR forester in this event. Information on gypsy moth, how to predict outbreaks and the DNR suppression spray program is available from your local DNR forester, at www.gypsymoth.wi.gov, or by calling 1-800-642-MOTH.

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Oak Wilt:

A serious disease of oaks in this part of Wisconsin is oak wilt, a fungus that plugs the vessels of the tree trunk, slowing water movement and eventually killing the tree. Fungus spores carried by sap-feeding beetles spread oak wilt. The beetles pick up the spores from infected trees. These spores can then be transported to healthy trees by the beetles. Oak wilt can also spread through root grafts between infected trees and healthy trees. Black, pin and red oaks are most susceptible, but white and burr oaks can also contract the disease. Avoid the cutting and pruning of oak trees from April 15 to July 1 of each year to help prevent the spread of the disease. A booklet on identifying and preventing oak wilt disease is available from your local DNR forester.

Forestry Assistance

Many of the practices listed in this plan are highly technical applications of scientifically based forestry principles. You are encouraged to employ a professional forester to assist you in developing and installing these practices. A list of cooperating foresters is available through your local DNR forester.

Terminology

Within the following portion of the management plan you will find commonly used forestry terms that may need explanation. Definitions of those terms follow.

Stand: Defined on page 3, above, under Stand Information.

Stocking: Stocking is the number of trees per acre, or the basal area of a forest stand. Management practices are often intended to achieve optimum stocking levels for a healthy forest stand.

Basal Area: Basal area is a term used to relate tree diameter to tree spacing. It describes the cross sectional area of trees at a point 4.5 feet above the ground and is measured in square feet per acre. It is used to determine the stocking of the stand.

Site Index: A number that indicates the actual or potential productivity of a tree species on a particular forest site. It is determined by plotting stand age and stand height on site index charts developed for most common forest species

Standard Order of Removal: The sequential process of selecting trees for removal from a stand during the thinning process. The order is

- Cut high risk trees that are not likely to survive until the next cutting
- Release crop trees with good form and health that are likely to produce high quality sawtimber
- Cut cull trees that show defects and that will not improve with growth over time
- Cut low vigor trees that are small and suppressed by taller and better-formed trees
- Cut unwanted species that have little long term potential in the stand
- Cut to improve tree spacing

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Stand 1: Oak Small Sawtimber

O 1115⁵ / O 0511²

80 Acres

Stand Description: The entire parcel of 80 acres is an even-aged stand of oak that is about 65 years old. Most likely the stand originated when frequent burning of the land was ended around 1940. The main species are red and black oak, and there are clumps of largetooth aspen and scattered soft maple throughout the stand. There are three primary soil types on the parcel. The top of the ridge is Urne fine sandy loam. The upper slopes (15 to 50% slope) are a composite of Elevasil loamy sands with some Boone sands. Lower slopes, especially on the east end of the property, are LaFarge and Seaton silt loams (12 to 25% slope). With the exception of the sandiest areas on the ridgetops, these soils are capable of supporting high quality red oak. This stand has a site index of 68, which is very good. Oaks of this quality are mature at 75 to 90 years of age. The trees are too dense to maintain good health. On the top of the ridge, especially, a lot of small diameter oak has died and fallen down. Aspen is also dying back, probably because of advanced age for the species. Red maple is present everywhere in the stand in moderate density and ranging from one inch saplings to sawtimber sized trees. Red maple is taking over the stand from below. It grows better in partial shade than oak and has gained a strong foothold on the entire parcel. Regenerating high densities of oak will be very difficult because of the maple.

Management Objectives: The property will be managed to regenerate and favor as much red oak as possible under the circumstances for both timber and wildlife considerations. Regenerating aspen will also be a priority, as aspen is an excellent tree for wildlife, has value for pulpwood and sawtimber, and it can compete favorably with red maple in open sunlight situations. The strategy to achieve these goals will involve a series of clearcuts, large and small, over the 25-year period of the MFL contract, to create a variety of age classes in the forest, and to favor oak and aspen to the extent possible.

Mandatory Practices:

In 2007 a thinning will be conducted on the entire 80-acre parcel. The thinning will reduce the basal area of the stand from its current level to a level of 70 to 80 square feet per acre. The standard order of removal listed on page 5 should be followed. Merchantable maple and aspen should be removed whenever possible. All tree stems from five inches to one inch in diameter must be cut down concurrent with the harvest to encourage oak seeding and aspen sprouting.

In 2014 a clearcut will be conducted on 25 to 30 acres of the property. This clearcut can be a single large block, or it can be scattered smaller blocks down to as little as one half acre (160 feet in diameter) in size. Smaller blocks are more desirable. Large oak trees on the edges can drop acorns into cutover patches. Smaller patches mean that more of the area can be seeded in this way, however the small size may not be practical for logging operations. All remaining trees down to one inch in diameter must be cut down concurrent with the harvest to provide the maximum amount of sunlight at ground level for tree seedlings. **In 2021 another clearcut will be conducted** on 25 to 30 acres of the property using the same criteria listed for the 2014 clearcut. **In 2028 the final clearcut will be conducted** on the remainder of the original stand with the same criteria listed above, **except for wildlife considerations listed below.**

A riparian management zone must be established along the small stream in the far northeast corner of the property when there is any cutting in that area. See Wisconsin BMP's for Water Quality listed on page 4.

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For all mandatory practices **Best Management Practices for Water Quality** regarding the construction and use of forest roads and trails must be observed to prevent soil erosion.

For all mandatory practices **cutting will not be allowed between April 15 and July 1** of each year to minimize the chance of introducing or spreading oak wilt disease.

Alternative Mandatory Practices: Clearcuts can be larger or smaller than listed above, as long as the entire stand is harvested within the period of the MFL contract. Consult with you local DNR forester if you want to make changes in the schedule.

Recommended Practices:

Roads and Trails: Logging operations will require the construction of access roads on the property. Each time that a logging operation is completed the roads should be smoothed out and seeded to the mixture listed on page 4.

Wildlife Considerations: In the final harvest in 2028 you can leave 3 to 5 oak trees per acre, or you can leave two or three quarter-acre or half-acre clumps of oaks per forty for den and cavity trees, and for interim acorn production. Consider leaving very steep slopes and portions of the ridgetop with poor quality and deformed oaks uncut for this purpose and to minimize soil erosion.

Cutting Notice and Report

Please note that at least 30 days prior to harvesting timber from this woods you must fill out and send to the DNR forester's office a **Cutting Notice and Report** form. Types of trees to be cut, the estimated volumes, harvest location and your signature must be supplied on the form. The DNR forester may inspect the proposed harvest to be sure it conforms to the practices agreed upon in your management plan.

• **Cutting Notice and Report** forms may be obtained from DNR offices statewide. •

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Summary

<u>Stand No.</u>	<u>Completion Year</u>	<u>Practice</u>	<u>Completed</u>
1	M - 2007	Conduct thinning of entire stand. Cut non-merchantable trees. Observe BMP's for Water Quality No cutting from April 15 to July 1	
1	2007	Smooth and seed trails to stabilize them.	
1	M - 2014	Conduct clearcut on 25 to 30 acres of stand. Cut non-merchantable trees. Observe BMP's for Water Quality No cutting from April 15 to July 1	
1	2014	Smooth and seed trails to stabilize them.	
1	M - 2021	Conduct clearcut on 25 to 30 acres of stand. Cut non-merchantable trees. Observe BMP's for Water Quality No cutting from April 15 to July 1	
1	2021	Smooth and seed trails to stabilize them.	
1	M - 2028	Conduct clearcut on remaining acreage of stand. Cut non-merchantable trees. Observe BMP's for Water Quality No cutting from April 15 to July 1	
1	2028	Leave scattered wildlife trees or clumps Smooth and seed trails to stabilize them.	

M = Mandatory Practices, which must be completed to remain in cooperation with and compliance of the Managed Forest Law. Other practices are **Recommended** and suggested to enhance your forest stewardship objectives and maintain forest health.

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Internet References to DNR Forestry Websites:

DNR: <http://www.dnr.state.wi.us/>
Division of Forestry:
<http://www.dnr.state.wi.us/org/land/forestry/>
Private Lands Forestry:
<http://www.dnr.state.wi.us/org/land/forestry/Private/index.htm>

Contact the DNR Forester prior to:

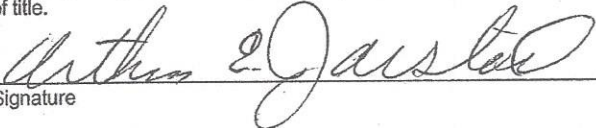
- Completing mandatory or recommended practices
- Selling or transferring these lands to another owner
- Filing DNR Cutting Notice and Report forms

Prepared by: **Robert J. Hess, CF**
West Veedum Forestry
9748 Hoffman Road
Pittsville, WI 54466

DNR Forestry Contact: **David Halverson**
Jackson County Forester
910 Hwy 54 East
Black River Falls, WI 54615


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 to 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.

	6-6-05
Signature	Date Signed
Signature	Date Signed
Signature	Date Signed
Signature	Date Signed

(Attach additional signature pages, if needed.)

Approved for the Department of Natural Resources by:


Signature of DNR Forester

5-4-05
Date Signed

Order Number:
 MFL Co 27 Seq 010 Year 2006
 FCL Co Seq Year

Department of Natural Resources
LAND EXAM AND PRACTICES REPORT
 Form 2450-128 Rev. 01-00

Owner's Name (Last, First, Middle Initial)

Arthur Eugene Jarstad Revocable Trust

Street Address (max 2 lines)

1327 Monterey Lane

City **Janesville**

State **WI**

Zip **53546**

LANDOWNER OBJECTIVE 2

Type of Activity (Data Entry Code in Paren):

- New MFL Entry (1)
- Addition to Existing MFL Entry
- New Stand Number (MFL-1; FCL-2; WTL-2)
- New Owner from a Partial Transfer (1)
- Initial Entry of FCL Backlog Recon (1)

County	Code	Section	Town	Range	Town Name	Page 1 of 1											
Jackson	27	10	23N	6W	Northfield												
A. Year: S.I. & B.A. Measured			2005														
1. Stand Prefix																	
2. Stand Number			1														
3. Timber Type - Primary			O 1115 ⁵														
Timber Type - Secondary			O0511 ²														
Timber Type - Understory																	
4. Habitat Type			Ar De-V														
5. Acres			80														
6. Year of Origin			1940														
7. Total Height			78														
8. Average DBH of Primary Size Class			11														
9. Site Index			68														
10. Site Index Tree Species Code			OR														
11. Stocking (B.A.)			142														
12. Volume-Cords/Acre			12														
Volume-Bd. Feet/Acre			6840														
13. Soil Type			D														
14. Management Objective			A														
B. Management Prescriptions			Prescr Code	Year	Mand	Prescr Code	Year	Mand	Prescr Code	Year	Mand	Prescr Code	Year	Mand	Prescr Code	Year	Mand
15. Stand Improvement (TSI)																	
16. Planting Needs																	
17. Site Preparation			19	2007	M												
18. Intermediate Cut (Thinning)																	
19. Regeneration Cut (Harvest)			5	2007	M												
20. Wildlife & Aesthetics			A40	W40													
21. Other*			B02	B03	B04												

Remarks (% non-productive for entire parcels, productivity, reasons for denial, informational items):

There is no non-productive land on the property. Landowner may leave patches of oaks with poor form for wildlife den and cavity trees.

Entire parcel gets a thinning in 2007. Clearcuts of 1/3 the total acreage follow in 2014, 2021, and 2028.

Good SI for oak, but red maple is encroaching.

Post sale residual cutting required for all harvests to set back maple regeneration, but it may be futile.

Signature Forester

[Handwritten Signature]

Date

3/22/05

Signature Regional Reviewer

[Handwritten Signature: Dave Halverson]

Date

5-4-05

ORDER NUMBER
Co. Code/Seq. No./Yr. of Entry 27-010-2006

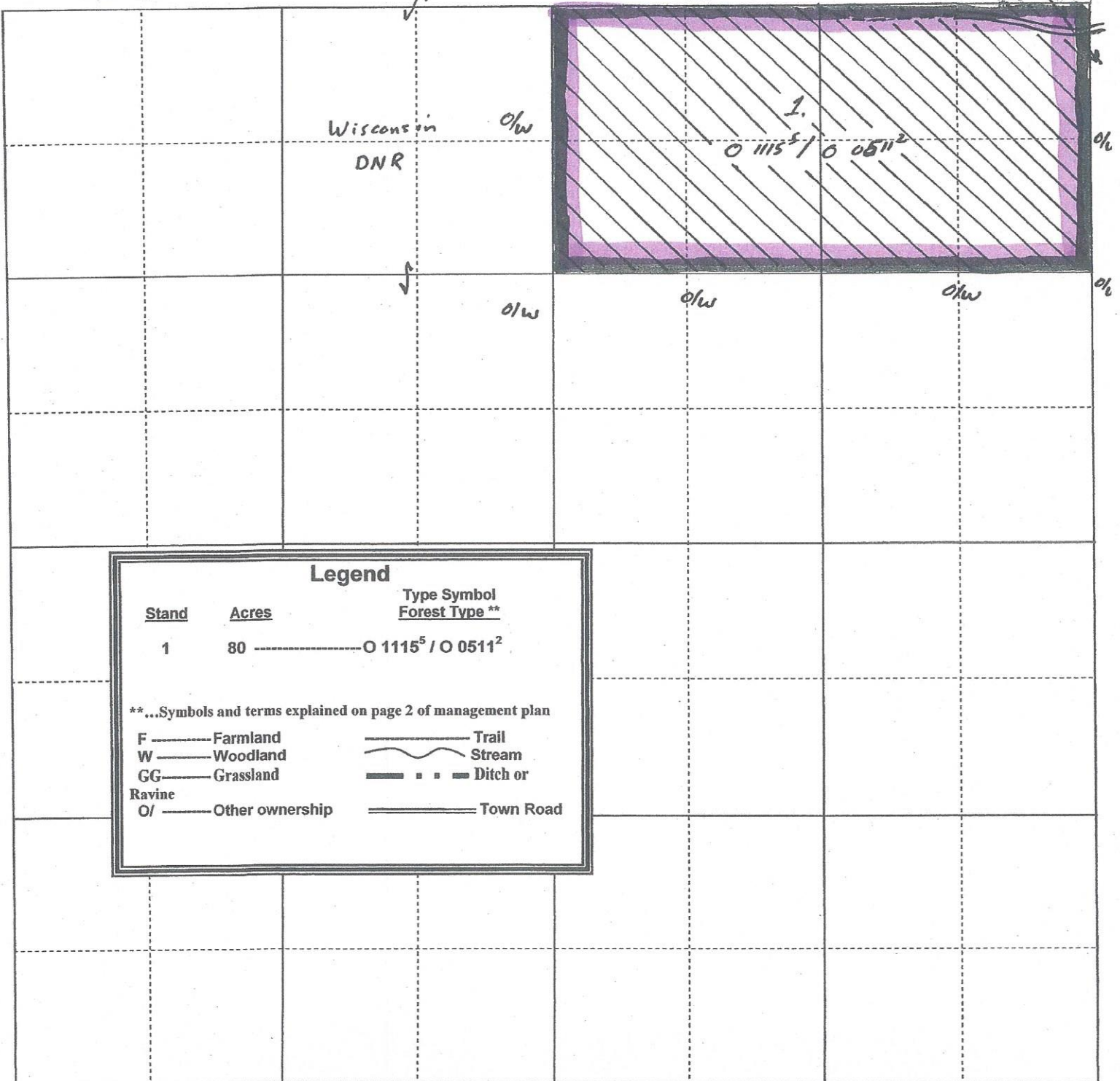
State of Wisconsin Dept. of Natural Resources
MANAGED FOREST LAW MAP
 Form 2450-133 Rev. 11/02

MADISON OFFICE USE ONLY
Acreage Entered 80.00

Owner's Name Arthur Eugene Jarstad Revocable Trust			Town or Village Name Northfield		County Jackson
Township # 23 N	Range # 6 W	Section 10	Open Acres	Closed Acres 80	

LEGEND: Closed Area  Open Area 
 Section Diagram 8" = 1 Mile

Prepared By: **Robert Hess, C.F.** Date: **8/12/2006**⁵



Legend		
Stand	Acres	Type Symbol Forest Type **
1	80	----- O 1115 ⁵ / O 0511 ²

**...Symbols and terms explained on page 2 of management plan

F ----- Farmland	Trail
W ----- Woodland	Stream
GG ----- Grassland	Ditch or
Ravine	Town Road
O/ ----- Other ownership	