

MANAGED FOREST LANDS STEWARDSHIP FORESTRY PLAN

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

Order Length: years

Starting January 1, 20

and ending December 31, 20

County: **County**

Municipality Name: **Municipality**

Town: N; Range Section(s)

Town: N; Range Section(s)

Total Plan Acreage: **ACRES**

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

Purpose and Expectations of the MFL Program:

The purpose of the Managed Forest Land Law is to encourage the management of private forest lands for the production of future forest crops for commercial use through sound forestry practices, recognizing the objectives of individual property owners, compatible recreational uses, watershed protection, and development of wildlife habitat and accessibility of private property to the public for recreational purposes. Under the law "*sound forestry practices*" means timber cutting, transporting and forest cultural methods recommended or approved by the department for the effective propagation and improvement of the various timber types common to Wisconsin along with the management of forest resources other than trees including wildlife habitat, watersheds, aesthetics and endangered and threatened plant and animal species. The law prohibits the use of Managed Forest Lands for commercial recreation (including leasing or receiving consideration for recreational activities), industry, human residence, grazing of domestic livestock or other uses the Department deems incompatible with the practice of forestry.

This plan is just one component of Wisconsin's strategy to promote, support and monitor sustainable forestry practices. Management plans under the MFL program are adaptive and will need amendments over time. Changing stand conditions and current science will dictate the forestry practices needed at the time a scheduled management practice becomes due. Management plans can also be changed due to changing land management goals. All changes in management must be consistent with generally accepted silvicultural practices and site capabilities.

Monitoring of management plan will be done throughout the length of the MFL order period. DNR Foresters will work with you to implement management practices and to insure that your lands continue to qualify for the benefits of the MFL program. You will be sent periodic correspondence when management practices are due. Please work diligently to implement the practices that are prescribed for your property. Also, please inform your local DNR Forester of changes in address, land sales and other information regarding your MFL lands.

Landowner Goals or Objectives:

- KEY a short bulleted list of about 150 Characters

Regional Landscape Overview:

Wisconsin DNR's Division of Forestry uses a variety of tools to classify lands to distinguish land areas that differ from one another in ecological characteristics. A combination of physical and biological factors, such as climate, geology, topography, soils, water, and vegetation, are used to differentiate areas. These factors are known to control or influence biotic composition and ecological processes. Together, they provide a useful approximation of ecosystem potentials. Land areas identified and mapped in this manner are known as ecological units. Maps of ecological units can be developed at many spatial scales, depending on the needs of the user. The maps, along with information about the ecological units, convey information about land characteristics and capability. Your management plan was prepared after consultation with the National Hierarchical Framework of Ecological Units (NHFEU) in order to prescribe the best available information on management practices. For more information please visit <http://dnr.wi.gov/forestry/ecolandclass/index.htm>.

General Property Overview:

The Department of Natural Resources (DNR) also divides and classifies lands into 22 different Geographical Management Units (GMUs). This classification system identifies the watershed (river, stream, lake) in which surface water will drain. The classification system also identifies the general property characteristics of that watershed, including the amount of agricultural, forest, wetland, urban and other land uses. Information on the GMU also breaks down the amount of forest land into the common timber and habitat types. This information was used to develop management practices for your property.



Table 15 Geographic
Management Units

Your land lies in the <http://dnr.wi.gov/forestry/gmu/index.htm>. For more information on GMUs and their characteristics, please visit <http://dnr.wi.gov/forestry/gmu/index.htm>.

Concurrence with Statewide Management Objectives:

Wisconsin forests are quite diverse; they encompass and influence many issues and concerns. The Department of Natural Resources has set statewide objectives to maximize the environmental, social and economic benefits of sustainable forest management. These objectives are found at this website <http://dnr.wi.gov/forestry/assessment/>.

When you follow your stewardship forestry plan, you make significant contributions to the sustainability and health of Wisconsin forests in the following ways:



Table 1: Statewide
Goals

Resource Protection:

Wisconsin Foresters consult special reports, records and inventories to make sure your forest management prescriptions benefit important natural, historical or archeological resources. Prior to starting management practices, these reports, records, and inventories will again be consulted. If new records are found, management prescriptions will be evaluated and, if necessary, modified to protect the resource from disturbance. Land management decisions balance the needs of the resource with landowner goals, MFL program requirements and legal status. Resources used to evaluate stand conditions and determine management practices can be found at these websites:

<http://dnr.wi.gov/org/land/er/WWAP/> (Wildlife Action Plan)

<http://dnr.wi.gov/org/land/er/wwap/explore/profiles.asp> (Species Profiles)

<http://dnr.wi.gov/org/land/er/communities/> (Natural Communities - Habitats)

<http://dnr.wi.gov/landscapes/> (Ecological Landscapes)

<http://dnr.wi.gov/org/land/er/wwap/explore/tool.asp> (Ecological Priorities Tool, which links the preceding items)

<http://dnr.wi.gov/org/land/wildlife/> (Wildlife Management)



Table 16 Ecological
 Landscapes

Your lands lie within a landscape known as **Table 16 Ecological Landscapes**. An overview of the landscape, species of greatest conservation need, management opportunities and much more can be found at this website:
<http://dnr.wi.gov/landscapes/>

Natural Heritage Inventory searches are made to determine if endangered, threatened, or special concern animals, plants or plant communities exist.



Table 2:NHI
 Statement 1



Table 3: NHI Buffer
 Statement

For additional information on rare plants, animals and natural plant communities, visit <http://dnr.wi.gov/org/land/er>.



Table 4:
 Archaeological Res.



Table 5: Historical
 Resources

Contact your local DNR Forester for additional information on archaeological and historical sites.

Your plan defines similar vegetative groupings or areas of land that can be combined for management purposes. Foresters call such areas "stands." Prescriptions (also called "practices") are scheduled for each stand according to its age, condition and characteristic plant species.

Mandatory Practices:

You must complete or establish mandatory practices in the manner prescribed by the end of the year listed below; if not, the department may be required to issue a non-compliance fee or withdraw your property from the MFL program. **If withdrawn, your property may be subject to substantial property taxes and a withdrawal fee.**

You must file two cutting notices at least 30 days before you may cut or harvest timber. You must file a Wisconsin Cutting Notice and Report (Form 2450-32). Additionally, you must file a separate county cutting notice with the County Clerk prior to any harvest. The cutting prescriptions must be within the guidelines of the Department of Natural Resources [Silviculture Handbook](http://dnr.wi.gov/forestry/Publications/Handbooks/24315/) at <http://dnr.wi.gov/forestry/Publications/Handbooks/24315/> and the [Forest Management Guidelines](http://dnr.wi.gov/forestry/Publications/Guidelines/) at <http://dnr.wi.gov/forestry/Publications/Guidelines/>.

Mandatory Practices Summary				
YEAR	STAND(S)	ACRES	TIMBER TYPE	PRACTICE
KEY Practice	KEY Stand Number	KEY Stand Acreage	KEY Primary Timber Type	PASTE the Underlined Label

Year				

Non-mandatory Practices:

Non-mandatory practices are optional; however, to get the maximum benefit from your Managed Forest Law-Stewardship Forestry Plan, it is important that you set aside time and money to complete your non-mandatory practices. These practices will enhance the growth rate and species composition of your forest; improve wildlife habitat and recreational opportunities.

Many non-mandatory practices are eligible for cost-share assistance under the Wisconsin Forest Landowner Grant Program.

Non- Mandatory Practices Summary				
YEAR	STAND(S)	ACRES	PRIMARY TYPE	PRACTICE
KEY Practice Year	KEY Stand Number	KEY Acreage	KEY the Primary Type	PASTE the Underlined Label

Contact your local DNR Forester for information about:

- ✓ Requirements of the Managed Forest Law.
- ✓ The sale or transfer of Managed Forest Law lands to other owners.

STAND NUMBER # Information & Prescriptions	
KEY Primary Type in Plain Language Key Primary Type Size Class ^(Density) / KEY Secondary Type Size Class ^(Density) / Key Understory Type Size Class ^(Density)	Acreage: KEY Acres



Table 6: Timber
Types



Table 7: Stand Age

OR



Table 8:
Non-Productive Type

The most abundant tree species in this stand include KEY up to 4 species names; use "and" in front of the last species. It is optional to include the percentage of each tree species as it may foster greater understanding of the timber type and management prescriptions. This sentence may be deleted for treeless stands.

Soil type, moisture and nutrient availability affect site quality, which limits the kind of tree species that will grow on a site, as well as the growth rate and quality of individual trees. Soil productivity also determines the amount of timber harvesting that can be sustained over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.



Table 9: Soils

If this stand is part of the 20% Non-Suitable and Non-Productive acreage:



Table 10:
Non-Productive State

Invasive Plants



Table 11: Invasive
Plant Inventory

Stand Conditions, Special Features or Characteristics

KEY stand-specific details. Here you might briefly explain unusual silviculture, alert others to stand health concerns or tie your prescription to topography, management history or landowner interests etc. Be brief; try to keep text under 300 characters.


Silvicultural System


This stand will be managed and regenerated within generally accepted silvicultural guidelines for the timber type according to the following management system:

You must select a silvicultural system for each timber stand even if no practices occur during the term of this MFL Order. You may delete this section and Table 12 if the stand is not suitable for forestry.



Table 12: Silvicultural System

Year Scheduled	<div style="text-align: right;">  Table 13: Mandatory Practice </div> <p style="text-align: center;">Mandatory Practice</p>
Year	PASTE Mandatory Practice Here
Year	PASTE Mandatory Practice Here
Year	PASTE Mandatory Practice Here

Year Scheduled	<div style="text-align: right;">  Table 14: Non-Mandatory </div> <p style="text-align: center;">Non-Mandatory Practice</p>
Year	PASTE Non-Mandatory Practice Here
Year	PASTE Non-Mandatory Practice Here
Year	PASTE Non-Mandatory Practice Here

PASTE HERE

To add another stand:



Add Stand .doc

****Click: (EDIT) (SELECT ALL)
Then (COPY) and (PASTE)
above this box**

IMPORTANT PROGRAM REQUIREMENTS AND MANAGEMENT PRACTICES COMMON FOR THE ENTIRE PROPERTY

Best Management Practices for Water Quality (BMPs)

To protect the water quality in Wisconsin's lakes, streams and wetlands *Wisconsin's Forestry Best Management Practices for Water Quality* must be employed during property management such as road building or timber harvest. To see these BMPs, go to <http://dnr.wi.gov/forestry/Usesof/bmp/bmpfieldmanual.htm>.

Forest Health

Forest health problems may develop from time to time. These problems may include, but are not limited to, insect damage, diseases, windstorms, fire, flooding, and drought. Forest health issues may alter generally accepted forest management guidelines. Please contact your local DNR Forester or Cooperating Forester if you are concerned about Forest Health or contact the DNR Website at <http://dnr.wi.gov/forestry/Fh/>.

Cost Share on Forest Management or Tree Planting

Learn if you qualify for forest management or tree planting cost share; go to <http://dnr.wi.gov/forestry/private/financial/>. Seedlings can be purchased through the state nursery program. Get tree order information or create your own tree planting plan at <http://dnr.wi.gov/forestry/nursery/>.

Timber Harvesting Contracts

It is very important that a landowner and logging contractor have a written and signed contract to guide the harvesting process before any harvesting is started. For more information on timber sale contracts please visit <http://dnr.wi.gov/forestry/private/harvest/>.

Natural Disturbances

Wind, ice, snow, insects, diseases, forest fire or other acts of nature can significantly impact forest stands. You may be able to take remedial steps to help your woodland recover and reduce your financial loss. For example, you may be able to:

1. Salvage commercially merchantable timber;
2. Release seedlings and saplings from damaged overstory timber;
3. Harvest damaged timber for sanitation purposes;
4. Re-establish tree seedlings through artificial or natural regeneration and follow-up treatments.

If your property has such damage, please contact your local DNR Forester at <http://dnr.wi.gov/forestry/ftax/county.asp>.

Invasive Plant Species

Invasive plants may decrease productivity, regeneration, habitat, recreational value and quality of your property. Identifying and controlling small populations of invasive plants is essential to minimize the spread of these unwanted plants. For additional information on invasive plant control, follow the management practices as recommended in *Wisconsin's Forestry Best Management Practices for Invasive Species* booklet. This booklet is available at any DNR Forestry office or at the DNR Website at <http://dnr.wi.gov/invasives/index.htm>.

Wildlife Habitat and Recreation Management

Wildlife habitat and recreation can be managed along with timber management. Most of these practices can be done throughout your entire property and can include seeding and mowing of trails and openings, and maintaining snags, den trees, and "wolf" trees. To learn more wildlife friendly ideas, visit <http://dnr.wi.gov/org/land/wildlife/>.

Non-Timber Forest Products

Non-timber products, including but not limited to mushrooms, berries, ferns, evergreen boughs, cones, nuts, seeds, maple sap, bark, twigs, moss, and edible and/or medicinal plants may be harvested. Some of these non-timber products, such as ginseng, may be regulated by Wisconsin statutes. Others may be protected as threatened or endangered species. All applicable laws must be followed when harvesting non-timber products. Care must also be taken to prevent over-harvesting and reducing biological diversity and ecosystem functions. For additional information on how harvesting of non-timber forest products will affect management of your forest land please contact your local DNR Forester at <http://dnr.wi.gov/forestry/ftax/county.asp>.

Forest Certification

Lands entered into the MFL program are automatically included in the MFL Group Certification unless landowners choose not to be certified. The MFL program is certified under the American Tree Farm System (ATFS) and the Forest Stewardship Council (FSC). As more and more wood-using industries and consumers demand proof they are buying wood from sustainably managed woodlands, MFL landowners benefit from this certification.

Being certified by a third party is beneficial in many ways; some of which are the ability to sell to the certified marketplace, future ability to participate in carbon markets, and an opportunity to educate the public about the importance of well managed private forests.

Specific group member duties include:

1. Petitioning for MFL designation
2. Agreeing to follow a DNR-approved forest management plan
3. Conforming to MFL statutes and regulations
4. Conforming to ATFS and FSC certification standards, including any measures that might go beyond those stipulated in MFL statutes or administrative rules or other state, federal or local laws. Some features that are emphasized in the ATFS or FSC standards include:
 - a. Allowing access for MFL Group forest certification field audits
 - b. Using pesticides (when needed) that are not prohibited by FSC. A list of FSC prohibited pesticides can be found at http://dnr.wi.gov/forestry/certification/pdf/FSC_prohibited_pesticides_WIDNR07.pdf. Landowners should self report pesticide use on their lands. A reporting system is available at <http://dnr.wi.gov/forestry/certification/pesticideUse.htm>.
 - c. Not planting Genetically Modified Organisms (GMO)¹ in the forest
 - d. Keeping forest products harvested from MFL Group land separate from products harvested from non-MFL Group land during commercial harvest operations
 - e. Endeavoring to adhere to Wisconsin Forestry Best Management Practices
 - f. Striving to consider appropriate liability insurance and safety requirements in timber sales and other contracts
 - g. Using the ATFS and FSC logos in conformance with their trademark policies

This certification is *voluntary*. If you wish to depart from certification you must file the appropriate departure request form. Departure from the forest certification does not affect your MFL designation. If you depart, you will not be able to market forest products as third party certified under the auspices of the MFL program. If your land is not yet third party certified, you may become certified by filing the appropriate application. For forest certification information, visit <http://dnr.wi.gov/forestry/certification/MFL.html>

Wildfire Prevention and Planning

Every year in Wisconsin, thousands of wildfires occur, destroying dozens of structures and threatening to burn hundreds more. An increasing number of people living and recreating in Wisconsin's wildland-urban interface is creating a growing need for fire prevention and planning for fires that will inevitably occur.

Because of their proximity to forested lands, there is the potential for homes and property to be at significant risk of damage or destruction in the event of a wildfire. As part of the landscape planning process, it is important to determine the level of danger to properties and how to mitigate those dangers.

There are actions that can be taken that will reduce your home or property's exposure to fire such as using fire resistant building materials, incorporating fuel breaks in the landscape, and simply knowing the local burning restrictions.

For more information on fire danger and burning permit restrictions, visit: <http://dnr.wi.gov/forestry/fire> and click on "View Burning Permit Restrictions." For more information on making your home and property more survivable in the event of a wildfire, visit: <http://dnr.wi.gov/forestry/fire/prevention/wui>

Forest Carbon

Forests are a significant piece of the global carbon cycle because of their ability to absorb and sequester carbon dioxide. Learn how your forest adds to the global carbon balance and be aware of the rules impacting your participation in forest carbon markets at <http://www.na.fs.fed.us/ecosystemservices/carbon/> [Exit DNR].

Certified Plan Writer Contact Information				
Name	Company			Phone Number
Address	City	State	Zip Code	E-mail

DNR Forester Contact Information				
Name				Phone Number
Address	City	State	Zip Code	E-mail

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 understands that participation in the MFL program will automatically result in membership in the MFL Certified Group, unless an MFL Certified Group Departure Request (form 2450-191) is submitted. The landowner agrees to amendment of the Petition for Designation to conform with the landowner objectives and map as included in this plan.

Landowner Signatures: To be signed by the president of a corporation/company, partners of a partnership, members of a LLC, or by the individual landowners (including life estate holders) as listed on the deed or other instrument of title.		
Name (please print)	Signature	Date Signed
Name (please print)	Signature	Date Signed
Name (please print)	Signature	Date Signed
Name (please print)	Signature	Date Signed
Name (please print)	Signature	Date Signed
Name (please print)	Signature	Date Signed
Name (please print)	Signature	Date Signed
Name (please print)	Signature	Date Signed

(Attach additional signature pages if needed.)

Geographic Management Units - Table 15

Code	Label	Select Wording
1	Bad Axe-LaCrosse	Bad Axe-LaCrosse GMU.
2	Black-Buffalo-Trempealeau	Black-Buffalo-Trempealeau GMU.
3	Central Wisconsin	Central Wisconsin GMU.
4	Grant-Platte-Sugar-Pecatonica	Grant-Platte-Sugar-Pecatonica GMU.
5	Headwaters	Headwaters GMU.
6	Illinois Fox	Illinois Fox GMU.
7	Lakeshore	Lakeshore GMU.
8	Lake Superior	Lake Superior GMU.
9	Lower Chippewa	Lower Chippewa GMU.
10	Lower Fox	Lower Fox GMU.
11	Lower Rock	Lower Rock GMU.
12	Lower Wisconsin	Lower Wisconsin GMU.
13	Milwaukee River	Milwaukee River GMU.
14	Mississippi River	Mississippi River GMU.
15	Root-Pike	Root-Pike GMU.
16	Sheboygan	Sheboygan GMU.
17	St Croix	St. Croix GMU.
18	Upper Chippewa	Upper Chippewa GMU.
19	Upper Fox	Upper Fox GMU.
20	Upper Green Bay	Upper Green Bay GMU.
21	Upper Rock	Upper Rock GMU.
22	Wolf	Wolf River GMU.

Concurrence with Statewide Management Goals - Table 1

SELECT up to 3 Bullets

TIP: Hold down CTRL key to select more than one bullet. Then Right click COPY, close this table and PASTE into your plan.

- Provide the landscape a mix of forests that represent a full array of forest types, age classes and stages of succession.
- Encourage the maintenance of oak within forests, and the oak forest type.
- Conserve, protect, and manage for biological diversity.
- Protect threatened and endangered species.
- Work to minimize invasive species introductions and mitigate the impact of those introduced on all forestlands.
- Protect rare ecosystems.
- Manage for healthy, vigorous forests that are more tolerant of insect outbreaks and disease and of human-related impacts.
- Conserve, protect, and manage old growth forests, and where feasible encourage their appropriate representation on the variety of ownerships.
- Work to minimize forest fragmentation.
- Increase use of forest management practices, including prescribed fire, that create and maintain diverse forests.
- Maintain native tree species within forests and the presence of forest types that are becoming uncommon.

Ecological Landscape - Table 16

Code	Label	Select One
1	Central Lake Michigan Landscape	Central Lake Michigan Landscape.
2	Central Sand Hills Landscape	Central Sand Hills Landscape.
3	Central Sand Plains Landscape	Central Sand Plains Landscape.
4	Forest Transition	Forest Transition Landscape.
5	North Central Forest	North Central Forest Landscape.
6	Northeast Sands	Northeast Sands Landscape.
7	Northern Highland	Northern Highland Landscape.
8	Northern Lake Michigan Coastal	Northern Lake Michigan Coastal Landscape.
9	Northwest Lowlands	Northwest Lowlands Landscape.
10	Northwest Sands	Northwest Sands Landscape.
11	Southeast Glacial Plains	Southeast Glacial Plains Landscape.
12	Southern Lake Michigan Coastal	Southern Lake Michigan Coastal Landscape.
13	Southwest Savanna	Southwest Savanna Landscape.
14	Superior Coastal Plain	Superior Coastal Plain Landscape.
15	Western Coulee and Ridges	Western Coulee and Ridges Landscape.
16	Western Prairie	Western Prairie Landscape.

NHI for Property (Sentence 1) - Table 2

Endangered, Threatened and Special Concern Species and Plant Communities

Presence on Property	SELECT one statement (and insert as the <i>first</i> NHI sentence):
Present	<p>The Natural Heritage Inventory (NHI) lists the following within your property:</p> <ul style="list-style-type: none"> • [KEY the number and status for each type of element. For example: • Two State Threatened plants • One Federally Endangered animal • One Special Concern Natural Community.]
Not Present	<p>The Natural Resources Heritage Inventory (NHI) lists no Endangered, Threatened or Special Concern Species or Natural Communities within your property.</p>

sentence

NHI - One Mile Buffer (Sentence Two) - Table 3

Endangered, Threatened and Special Concern Species and Plant Communities

Presence within One Mile Radius	Pick one statement and insert as the <u>second</u> NHI sentence:
Present with Suitable Habitat on the Property	<p>This same NHI review listed the following resources within an area surrounding your property:</p> <ul style="list-style-type: none"> • [KEY the number and status for each element group. For example: • Two State Threatened plants • One Federally Endangered animal • One Special Concern Natural Community]
Present without Suitable Habitat on the Property	This same NHI review showed that there are known Endangered, Threatened or Special Concern Species or Natural Communities in the area surrounding your property but suitable habitat for them is not found on your property.
Not Present	This same NHI review showed that that there are no known Endangered, Threatened or Special Concerns Species or Natural Communities present within the surrounding area.

Archaeological Resources Statements – Table 4

Presence in Stand	Pick one statement.
Present	The Archaeological Resources Inventory lists the following resources in this MFL property: [KEY a bulleted list of hits within the landowner's property].
Not Present in Stand	The Archaeological Resources Inventory lists no archaeological resources within this MFL property.

Historical Resources Statements - Table 5

Historical Resource	Pick one statement
Present	The Historical Resources Inventory lists the following resources within this MFL property: <ul style="list-style-type: none"><li data-bbox="597 474 1386 506">• [KEY a bulleted list of the hits within the landowner's property].
Not Present	The Historical Resources Inventory lists no historical resources within this MFL property.

TIMBER TYPE - Table 6

TIMBER TYPE	Select Wording
ASPEN	<p>This area of land is an Aspen Forest. Aspen Forests are dominated by trembling aspen (also known as quaking aspen and white popple) and bigtooth aspen (also known as yellow popple). Balsam poplar can be found in Aspen Forests in the northern parts of the state. Trees commonly growing with aspen can be red maple, paper birch, balsam fir, red oak and white pine as well as other native trees. Aspen is a relatively short lived tree that generally regenerates all at once following a major disturbance such as wind, fire or cutting. Aspen requires full sunlight and does not grow well in shade of taller trees.</p> <p>Aspen grows best on well-drained loamy soils but can do well within a wide range of soil conditions. Balsam poplar is often present in wetter soils in northern Wisconsin.</p>
BALSAM FIR	<p>This area of land is a Balsam Fir Forest. Balsam Fir Forests consist of more than 50% balsam fir; in mixed swamp conifer stands, balsam fir is predominant. Trees commonly growing with balsam fir can be northern white cedar, black spruce, white spruce, tamarack, white pine, birch, or aspen as well as other native trees. Balsam Fir is a relatively short-lived species.</p> <p>Balsam Fir grows in a wide range of soil conditions but will grow best on moist loams.</p>
BLACK SPRUCE	<p>This area of land is a Black Spruce Forest. Black Spruce Forests contain more than 50% black spruce; in mixed swamp conifer stands, black spruce is predominant. Trees commonly growing with black spruce can be tamarack, northern white cedar, balsam fir, aspen, or white pine as well as other native trees.</p> <p>Black spruce grows almost entirely on peat bogs, but may also occur on muck-filled seepages, and along streams. Occasionally black spruce will be found on mineral soil adjacent to swamps. Black spruce is subject to wind throw due to high water table. When selecting a cutting method, consideration must be given to its effect on the water table. On some sites, the growth of black spruce can be slow; making these black spruce stands non-productive.</p>
BLACK WALNUT	<p>This area of land is a Black Walnut Forest. Black Walnut Forests consist of more than 50% black walnut. Black walnut stands naturally occur in southwestern Wisconsin. Elsewhere in Wisconsin, shorter growing seasons limit growth of quality sawtimber. Trees commonly growing with walnut can be central hardwoods, oaks, northern hardwood species as well as red cedar, box elder and white pine.</p> <p>Good soil quality is extremely important to walnut trees. Well-drained, fertile loamy soils support the best growth.</p>
BOTTOMLAND HARDWOOD	<p>This area of land is a Bottomland Hardwood Forest. Bottomland Hardwood Forests occur on flood plains primarily in the southern 2/3 of Wisconsin. They are complex plant communities due to species variety, flooding, ice movement, internal drainage patterns, and generally very rich, productive soils. Most bottomland hardwood forests are dominated by green ash, silver maple, swamp white oak, eastern cottonwood, river birch, or American elm. Dutch Elm Disease has limited management of elm. Trees commonly growing with bottomland hardwoods can be hackberry, basswood, black ash, red maple, red oak and black willow as well as other native trees. In parts of the state reed canary grass, a non-native invasive plant, will quickly take over bottomland hardwoods stands that have been opened to excessive sunlight through over-cutting or natural disturbance.</p> <p>Bottomland hardwood forest grows on flood plain soils with a wide range of soil textures.</p>

CENTRAL HARDWOOD	<p>This area of land is a Central Hardwood Forest. Central Hardwood Forests consist of mixtures of upland hardwood species, predominantly oaks, hickory, elms, black cherry, red maple, ash, basswood, hackberry, or sugar maple. Depending upon site conditions and history, the relative abundance of these tree species can vary greatly, but these stands are not dominated by oak or maple. Many central hardwood forests are in the process of succession from oak forests.</p> <p>Central hardwoods grow best on well drained loamy soils.</p>
HEMLOCK	<p>This area of land is a Hemlock Forest. Hemlock Forests are composed of more than 50% hemlock. Trees commonly growing with hemlock can be yellow birch, white pine, sugar maple, red maple, balsam fir or, in eastern Wisconsin, American beech as well as other native trees. Hemlock is long lived, shade tolerant and often grows in uneven age forests. Hemlock historically was a dominant tree species in northern Wisconsin but is presently much less common. Hemlock groves and forests are often difficult to regenerate.</p> <p>Hemlock grows best on moist and well drained loamy soils but can grow on a wide range of soils.</p>
JACK PINE	<p>This area of land is a Jack Pine Forest. Jack Pine Forests are composed of more than 50% jack pine. Trees commonly growing with jack pine can be red pine, white pine, oak, or aspen as well as other native trees.</p> <p>Jack pine needs full sunlight and regenerates after forest fires. As a result of fire control efforts, jack pine is declining in abundance in Wisconsin. It is a hardy species and is most common on dry sandy soils, but grows best on well drained loamy sands. It also occurs on wet sites.</p>
MISCELLANEOUS (OTHER) CONIFER	<p>This area of land is a Miscellaneous (Other) Conifer Forest. Miscellaneous (Other) Conifer Forests is a catch-all for uncommon or non-native conifers that do not fit well into any other timber types. This type consists of more than 50% red cedar, Scotch pine, Norway spruce, European larch or other non-native conifers. Many of these stands are in plantations; however, natural stands occur.</p> <p>This forest type grows on a wide range of soil conditions.</p>
MISCELLANEOUS (OTHER) DECIDUOUS	<p>This area of land is a Miscellaneous (Other) Deciduous Forest. Miscellaneous (Other) Deciduous Forests is a catch-all for uncommon or non-native hardwoods that do not fit well into any other timber type. This type consists of more than 50% box elder, black locust, honey locust, non-native elm, Norway maple or other non-native hardwoods.</p> <p>This forest type grows on a wide range of soil conditions.</p>
NORTHERN HARDWOOD	<p>This area of land is a Northern Hardwood Forest. Northern Hardwood Forests consist of over 50% of any combination of sugar maple, basswood, white ash, yellow birch, and beech trees. Sugar maple is typically the dominant tree in this type except in eastern Wisconsin where beech is sometimes dominant. Trees commonly growing with northern hardwood forest can be red maple, oak, hemlock, or balsam fir as well as other native trees. Northern hardwood, the most common forest type in Wisconsin, is one of the few forest types that can be perpetuated in an uneven age condition. In northern Wisconsin, northern hardwoods are less diverse than they once were; historically they included more hemlock and white pine.</p> <p>Northern hardwood forests grow best on deep, well drained, silt loam soils. Northern hardwoods do not grow well on excessively dry or wet soil.</p>

<p>OAK</p>	<p>This area of land is an Oak Forest. Oak Forests are composed of over 50% oak. In Wisconsin, common kinds of oak trees are red oak, black oak, pin oak, white oak, bur oak. Trees commonly growing in oak forests can be aspen, red maple, hickory, white pine, white birch, basswood, black cherry, sugar maple, elm, or jack pine.</p> <p>Oak forests are abundant, occurring throughout the state and growing on most soil types. Composition of oak forests varies depending on their location within Wisconsin and on site quality. On nutrient-poor, dry sites, oak forests may include black oak, white oak, northern pin oak, and bur oak. Trees commonly growing with oak on dry sites can be hickories, black cherry, aspen, red maple, and paper birch. In northern Wisconsin, pines may also occur with dry oak forests. Sites with a better nutrient and moisture supply may support mixtures of red and white oak, or may be dominantly red oak. On sites with more nutrients, trees growing with oak may be basswood, hickories, ironwood, black cherry, elms, red maple, or white pine. On the richest sites, sugar maple or white ash may also occur. While oaks are still very common trees in Wisconsin, the abundance of high-quality red and white oaks on nutrient-rich sites has declined considerably due to forest succession and failed regeneration.</p> <p>In general, oaks grow best on well drained loamy soils. All oaks require drastic disturbance of the forest, both overstory and understory, in order to regenerate. On richer sites, oak forests are particularly difficult to regenerate and competition control is essential. Fire is one tool that facilitates the regeneration and maintenance of oak forests. Mechanical and chemical techniques are commonly utilized to mimic the effects of fire to regenerate oak.</p>
<p>RED MAPLE</p>	<p>This area of land is a Red Maple Forest. Red Maple Forests are composed of over 50% red maple. Trees commonly growing with red maple can be ash, elm, aspen, white birch, white pine, balsam fir, white cedar, and oak as well as other native trees.</p> <p>Over the last century red maple has increased dramatically in abundance throughout the state. Red maple can produce abundant seed and readily stump sprouts. It tolerates shade, and occurs on a wide range of soils from sands to loams, and dry to wet. It grows best on well-drained loamy soils.</p>
<p>RED PINE</p>	<p>This area of land is a Red Pine Forest. Red Pine Forests are composed of more than 50% red pine. Trees commonly growing with red pine can be white and jack pine, aspen, or oak as well as other native trees. Red pine has been a common tree in plantations.</p> <p>Red pine grows best in well drained loamy sands and sandy loams within its range in northern and central Wisconsin. It can grow well on a wide range of other soil conditions if introduced by planting.</p>
<p>SWAMP HARDWOOD</p>	<p>This area of land is a Swamp Hardwood Forest. Swamp Hardwood Forests consist of any combination of more than 50% black ash, green ash, red maple, silver maple, swamp white oak, or American elm. This type occurs on wetlands characterized by a fluctuating water table near or above the soil surface with a subsurface water flow. Trees commonly growing with swamp hardwoods can be aspen, white cedar, balsam fir white pine, or white birch as well as other native trees.</p> <p>Swamp hardwoods typically grow on very wet soils in closed water basins that do not have a stream or river running through them and experience significant water table fluctuation. Though capable of growing in semi-stagnant conditions they grow best if the water is moving and aerated. Swamp hardwoods are subject to wind throw due to high water table. When selecting a cutting method, consideration must be given to its effect on the water table. On some sites, the growth of swamp hardwoods can be slow; making these swamp hardwood stands non-productive.</p>

TAMARACK	<p>This area of land is a Tamarack Forest. Tamarack Forests are composed of more than 50% tamarack and associated with spruce, balsam fir, hemlock, black ash, birch, white pine as well as other native trees.</p> <p>Tamarack grows best on rich, moist, well drained soils and is commonly associated with lowland brush in swamps or along bodies of water. Intolerant to shade, a tamarack tree must dominate its neighbors to survive; its shallow, compact root system can leave it vulnerable to wind throw during high water.</p>
WHITE BIRCH	<p>This area of land is a White Birch Forest. White Birch Forests are composed of more than 50% white birch. Birch is a relatively short lived species. Birch does not grow well in shade, so it is usually found in places where the forest canopy has been opened up by fire or other disturbances. Trees commonly growing with white birch can be aspen, balsam fir, red oak, red maple, white and red pine as well as other native trees. When aspen is present, birch has difficulty regenerating after harvesting due to vigorous aspen sprouting.</p> <p>White birch grows best on well-drained loamy soils but can do well within a wide range of soil conditions.</p>
WHITE CEDAR	<p>This area of land is a White Cedar Forest. White Cedar Forests are composed of more than 50% white cedar; in mixed swamp conifer stands, white cedar is predominant. Trees commonly growing with white cedar can be spruce, tamarack, balsam fir, hemlock, black ash, birch, white pine as well as other native trees. White cedar forests are often difficult to regenerate.</p> <p>White cedar grows best on upland soils of limestone origin but most commonly occurs in swamps.</p>
WHITE PINE	<p>This area of land is a White Pine Forest. White Pine Forests consist of more than 50% white pine. Trees commonly growing with white pine can be red and jack pine, aspen, paper birch, red maple, oak, balsam fir, white spruce, or eastern hemlock as well as other native trees. White pine is a long lived tree species that was common in Wisconsin's historic forests. It was heavily logged during the Cutover and was scarce for a time, but is now increasing as trees become old enough to be good seed producers.</p> <p>White pine grows in almost all soil conditions in Wisconsin but does best on loamy sands, sandy loams, and loam soils.</p>
WHITE SPRUCE	<p>This area of land is a White Spruce Forest. White Spruce Forests consist of more than 50% white spruce. Trees commonly growing with white spruce can be aspen, white birch, or balsam fir as well as other native trees. White spruce is native only to northern Wisconsin, but has been widely planted in plantations in southern Wisconsin where it is often invaded by nearby tree species over time.</p> <p>White spruce grows in a wide range of soil conditions, but does not do well on extremely dry or wet soils.</p>

STAND AGE STATEMENT - Table 7

Description	Select Wording
Even-aged Type	These trees make up an even age stand that originated about [KEY Year]. Tree ages in even-aged stands may vary slightly, but the trees began growing in relatively the same period of time.
Uneven-aged Type	These trees make up an uneven-aged stand with a variety of tree ages, ranging from young trees (seedlings) through trees that are older (pulpwood and sawlogs).

NON-PRODUCTIVE TYPE - Table 8

Type Code	Non-productive Primary Type	Select Wording
LBA	Alder swamp	<p>This area of lowland brush (alder) land is wet and is more than 50% alder.</p> <p>Alder swamps usually grow in peat and muck soils.</p>
LBB	Bog Birch Swamp	<p>This area of land is wet and is more than 50% bog birch.</p> <p>Bog birch swamps usually grow in peat and muck soils.</p>
LBD	Dogwood Swamp	<p>This area of land is wet and is more than 50% silky and red osier dogwood.</p> <p>Dogwood swamps usually grow in peat and muck soils.</p>
KEV	Emergent Vegetation	<p>This area is a marsh or an area of emergent vegetation. Emergent vegetation grows in water and has tops that grow and flower above the water. Plants that live in these conditions are cattail, river bulrush or tall sedges.</p> <p>Cattails, river bulrush and sedges generally grow in muck soils that are saturated with water year round. Water chemistry and aeration dictate the type of vegetation that can grow here. This soil type cannot sustainably grow timber products.</p>
GH	Herbaceous Vegetation	<p>This area of herbaceous (non-woody) vegetation is on an upland site and is predominantly covered with bracken fern, sweet clover, giant ragweed, stinging nettle, upland aster, goldenrod, prairie dock and other types of herbaceous plants. Many sites with herbaceous vegetation were abandoned agricultural fields that have been left fallow for a number of years or are unable to grow trees because of frost pockets or other environmental conditions. Tree or shrub seedlings may have started to seed in but the grassland still dominates at this time.</p> <p>Herbaceous vegetation grows on a variety of soils.</p>
GLS	Low Growing Shrubs	<p>This area of low growing shrubs is on an upland site and is predominantly covered with blueberry, raspberry and other shrubs. Tree seedlings or taller shrubs may have started to seed in, but the shrubs still dominate at this time.</p> <p>Low growing shrubs grow on a variety of soils.</p>
KG	Lowland Grass	<p>This lowland grass area is predominantly covered with reed canary grass, bluejoint, redtop, cordgrass, and other grasses that grow in wet or periodically flooded conditions.</p> <p>Lowland grasses can grow in a variety of soils, but are usually found in wetter silt and clay soils that retain a lot of water moisture.</p>
KH	Lowland Herbaceous Vegetation	<p>This area of lowland herbaceous vegetation contains more than 50% or more of non-woody vegetation, such as lowland asters, stinging nettle, and wild sunflowers, but few trees.</p>

		Lowland herbaceous vegetation can grow in a variety of soils, but are usually found in wetter silt and clay soils that retain a lot of water moisture.
KB	Muskeg or Bog	<p>This muskeg-bog area is on a lowland site and is predominantly covered with sphagnum moss, cotton grass, leatherleaf, cranberry, Labrador tea and other wetland plants. Muskegs support scattered trees, including black spruce, tamarack, and jack pine.</p> <p>Muskegs and bogs generally grow in muck soils that are saturated with water year round. This soil type cannot sustainably grow timber products.</p>
ROW	Right-of-Way	<p>This area is a Right-of-Way (ROW) for use as a road, railroad, or for gas, power or telephone line. A ROW is a form of an easement granted by the property owner that gives the grantee certain rights to use part of your land.</p> <p>Management of this ROW will usually be done by the company owning the ROW.</p>
Z	Rock Outcrops and/or Sand Dunes	This area of land is rock, gravel or sand.
L	Water <i>(A lake greater than 40 acres or a stream greater than 1/8 mile wide)</i>	<p>This is a large body of water.</p> <p>Large bodies of water can be found on mineral soil that is impervious to infiltration. Some water bodies have sand, gravel or rock bottoms and others have silt and muck. Each soil type provides certain habitat characteristics for aquatic species.</p>
LBW	Willow Swamp	<p>This area of land is wet and is more than 50% shrubby willow.</p> <p>Willow swamps usually grow in peat and muck soils.</p>
LM	Small Lake or pond <i>(less than 40 acres)</i>	<p>This area is a small lake or pond.</p> <p>Small lakes and ponds can be found on mineral soil that is impervious to infiltration. Some lakes and ponds have sand, gravel or rock bottoms and others have silt and muck. Each soil type provides certain habitat characteristics for aquatic species.</p>
LMS	Small Stream <i>(less than 1/8 mile wide)</i>	<p>This area is a small stream. Many streams can be perennial and flow year round or be intermittent and flow during snow melt or period of heavy rain.</p> <p>Small streams can be found on mineral soil that is impervious to infiltration. Some lakes and ponds have sand, gravel or rock bottoms and others have silt and muck. Each soil type provides certain habitat characteristics for aquatic species.</p>
GP	Prairie Grasses	<p>This grassland is dominated by plants native to Wisconsin that are representative of historic prairie communities.</p> <p>Prairies are characterized by a lack of trees and tall shrubs and are dominated by little bluestem, side-oats grama, hairy grama, prairie dropseed, Indian-grass, needle grass, big bluestem, switch grass, junegrass, panic grasses, and poverty-oat grass.</p>

		<p>Prairies occur on a wide variety of topographies, soil types, and moisture regimes - from water-covered peat to the driest sandy soils.</p>
GG	True Grass Lands	<p>This grass land area is on an upland site and is predominantly covered with brome, quack, blue grass, timothy, big and little bluestem, Indian grass and other types of grasses. Many upland grass lands were abandoned agricultural fields that have been left fallow for a number of years or are unable to grow trees because of frost pockets or other environmental conditions. Tree or shrub seedlings may have started to seed in but the grassland still dominates at this time.</p> <p>True grasses grow on a variety of soils.</p>
UB	Upland Brush	<p>This upland site consists of over 50% tall persistent shrubs. The area may contain scattered trees but is stocked with less than 10% trees. Common shrubs present will include hazel, gray dogwood, june berry, sumac, ninebark and prickly ash and other shrubs.</p> <p>Upland brush can grow on a variety of soils.</p>

Soils - Table 9

Code	What the code means	Select Wording
A	sand	This stand has a sandy soil. Sand-sized particles make up 85% or more of this soil, along with up to 15% silt plus clay. Sand particles are larger than silt or clay particles, making these soils drain rapidly. Sandy soils tend to be droughty and nutrient-poor. Trees that are adapted to grow on sandy soils can be either short- or long-lived, and must be able to tolerate extended periods of drought. These soils may be unsuitable for whole-tree harvesting and the harvest of fine woody material because of their potential for nutrient depletion.
B	loamy sand	This stand has a loamy sand soil. Loamy sand soils are made up of 70% to 85% sand with up to 30% silt plus clay. Loamy sand soils are well drained and somewhat nutrient poor, but the finer soil particles provide a greater moisture and nutrient supply than pure sands. Trees that are adapted to grow on these soils must be able to tolerate periods of drought.
C	sandy loam	This stand has a sandy loam soil. Sandy loam soils are made up of 50% to 70% sand particles with up to 50% silt and 20% clay. Sandy loam soils typically have good internal drainage and soil nutrients sufficient to support excellent growth for many tree species. Trees that are adapted to grow on sandy loam soils generally have a high rate of growth.
D	loam (may include silt loam or silt)	This stand has a loam soil. Loam soils are made up of a mixture of sand, silt and clay particles. Loam soils are 23% to 52% sand, 28% to 50% silt, and 48% to 78% clay. Silt loam or silt soils have relatively higher amounts of silt particles. Loam soils typically have an abundance of moisture and nutrients to sustain excellent growth rates for many tree species. Care must be taken to prevent compaction and rutting when using equipment on these soils.
E	clay loam	This stand has a clay loam soil. Clay loam soils are made up of a mixture of sand, silt and clay particles, but have a higher amount of clay than loam soils. Clay loam soils are 20% to 45% sand, 15% to 53% silt, and 55% to 80% clay. Clay loam soils have an abundance of moisture and nutrients to sustain excellent growth for many tree species, but these soils drain slowly and wetness can be a limitation. Excessive moisture may limit equipment operations, and make the site unsuitable for some tree species. Care must be taken to prevent compaction and rutting when using equipment on these soils.
F	peat	This stand has a peat soil. Peat soils usually occur in wetlands, and have a surface layer of partially decomposed plant material at least 16" thick. Many plant parts can still be identified in a peat soil because the organic matter has not fully decomposed. Peat soils are wet, so organic matter decomposes slowly and nutrients may not always be available for tree growth. Trees that grow on peat soils are adapted to wet conditions and are typically slow-growing. Care must be taken to prevent compaction and rutting when using equipment on these soils. Generally, management activities

		should be conducted only during well-frozen conditions. These soils may be unsuitable for whole-tree harvesting and the harvesting of fine woody material because of their potential for nutrient depletion.
G	muck	This stand has a muck soil. Muck soils usually occur in wetlands, and have a surface layer of decomposed plant material at least 16" thick. Plant parts have decomposed to the extent that the original vegetation cannot be identified. Muck soils are wet, so organic matter decomposes slowly and nutrients may not always be available for tree growth. Trees that grow on peat soils are adapted to wet conditions and are typically slow-growing. Care must be taken to prevent compaction and rutting when using equipment on these soils. Generally, management activities should be conducted only during well-frozen conditions. These soils may be unsuitable for whole-tree harvesting and the harvesting of fine woody material because of their potential for nutrient depletion.
H	clay (may include silty, sandy or red clay)	This stand has a clay soil. Clay soils are made up of a mixture of sand, silt, and clay particles, but have a higher proportion of clay than other soil types. Clay soils are 0% to 45% sand, 0% to 40% silt, and 40% to 100% clay. Silty clay or sandy clay soils are similar, but contain up to 20% more silt or sand, respectively. Clay soils have a have an abundance of moisture and nutrients to sustain excellent growth for many tree species, but these soils drain slowly and wetness can be a limitation. Excessive moisture may limit equipment operations, and make the site unsuitable for some tree species. Care must be taken to prevent compaction and rutting when using equipment on these soils.
I	sand mantled clay	This stand has a red clay soil with alternating layers of sand. The combination of clay and sand can grow trees, but it is not a stable soil base. Stream banks have the potential to slough into the water during spring run-off and in periods of heavy rains. Harvesting on these soils is not recommended because removal of trees will allow for more rain to reach the forest floor, causing the soil to become saturated with water and slough faster than if the trees were left standing.
J	poorly drained mineral	This area of land has a poorly drained mineral soil. The soil has impermeable layers of clay or rock that cause water to pond and stand at or near the soil surface. The high water table limits the rate of tree growth, and some sites may not support trees. These soils may be unsuitable for whole-tree harvesting and the harvesting of fine woody material because of their potential for nutrient depletion.

Non- Productive Statement - Table 10







Code	What the code means	Select Wording
NP1	NOT CAPABLE OF GROWING 20 CUBIC FEET PER ACRE PER YEAR	This area does not grow at the minimum rate of 20 cubic feet of timber per acre per year. Under the Managed Forest Law Program, areas like this can be entered under the non-productive category. This area, as well as other non-productive areas, cannot exceed 20% of the total parcel acreage. If timber products are harvested from this area, you must file a cutting notice and report and pay yield tax on the harvested volume.
NP2	NOT STOCKED WITH TREES	This area does not meet the minimum qualifications of a forest because it is either not stocked with trees or does not have the minimum number of trees or timber volume per acre. Under the Managed Forest Law Program, areas like this can be entered under the non-productive category. This area, as well as other non-productive areas, cannot exceed 20% of the total parcel acreage.
NP3	LANDOWNER CHOOSES NO MANAGEMENT BECAUSE OF AESTHETIC REASONS	You have chosen to not manage this area of land because of aesthetic reasons. Under the Managed Forest Law Program, areas like this can be entered under the non-productive category. This area, as well as other non-productive areas, cannot exceed 20% of the total parcel acreage. If timber products are harvested from this area, you must file a cutting notice and report and pay yield tax on the harvested volume.
NP4	LANDOWNER CHOOSES NO MANAGEMENT TO PROMOTE OLD GROWTH STAND CONDITIONS	You have chosen to not manage this area of land to promote old growth stand conditions. Under the Managed Forest Law Program, areas like this can be entered under the non-productive category. This area, as well as other non-productive areas, cannot exceed 20% of the total parcel acreage. If timber products are harvested from this area, you must file a cutting notice and report and pay yield tax on the harvested volume.
NP5	LANDOWNER CHOOSES NO MANAGEMENT DUE TO DIFFICULT OR NO ACCESS	You have chosen to not manage this area of land because access to the land is difficult. Under the Managed Forest Law Program, areas like this can be entered under the non-productive category. This area, as well as other non-productive areas, cannot exceed 20% of the total parcel acreage. If timber products are harvested from this area, you must file a cutting notice and report and pay yield tax on the harvested volume.

Invasive Plants Inventory Statement - Table 11

Code	Status of Invasive Plants	Select Wording
30	Present	During the forest inventory process invasive plants were discovered in this stand. The most abundant invasive plant species found stand were [KEY up to 4 invasive species starting with the most abundant species].
31	Not Present	During the forest inventory process invasive plants were not found in this stand. Not finding invasive plants at this time does not mean that you may not find invasive plants in the future. Please remain diligent in searching for and eliminating invasive plants before they become a serious problem.
32	Not Evaluated – Not Trained	Invasive plants may be present in your stand, but were not evaluated during the forest inventory process. The forest inventory process took place at a time of year when many species were dormant that prevented them from being found and identified. Please remain diligent in searching for and eliminating invasive plants before they become a serious problem.
33	Not Evaluated – Off Season	






Silvicultural Systems - Table 12

Code	Practice	Type-Mgt System	System	Select a Silvicultural System
A1	Natural Regeneration Maintenance	Even-aged – with thinnings	Natural even-aged regeneration of Timber Type with future Thinning	<p><u>NATURAL EVEN-AGED REGENERATION OF TIMBER TYPE WITH FUTURE THINNING</u> The tree species present in your forest will be managed and regenerated following generally accepted silvicultural guidelines for the timber type. The stand will be managed through its rotation (the period between initial regeneration and the stand's final cutting) as a single aged forest. Periodic thinnings will be applied throughout the life of the stand to improve quality and vigor. Regeneration cutting will remove the old stand to provide the necessary open conditions and sunlight to naturally regenerate the stand.</p>
A2		Even-aged – without thinnings	Natural even-aged regeneration of Timber Type without future Thinning.	<p><u>NATURAL EVEN-AGED REGENERATION OF TIMBER TYPE WITHOUT FUTURE THINNING.</u> The tree species present in your forest will be managed and regenerated following generally accepted silvicultural guidelines for the timber type. The stand will be managed through its rotation (the period between initial regeneration and the stand's final cutting) as a single aged forest. Regeneration cutting will remove the old stand to provide the necessary open conditions and sunlight to naturally regenerate the stand.</p>
A3		Uneven- aged	Natural uneven-aged Regeneration of Timber Type – uneven-aged.	<p><u>NATURAL UNEVEN-AGED REGENERATION OF TIMBER TYPE – UNEVEN-AGED.</u> The tree species present in your forest will be managed and regenerated following generally accepted silvicultural guidelines for the timber type. The stand will be managed to develop and maintain three or more age classes of trees. Uneven-aged management is an option primarily applied to shade tolerant tree species or forest types.</p>


C1	Conversion	Natural	<p>Natural Conversion to</p>  <p>Table 12 c: Tree Species</p>	<p>NATURAL CONVERSION This stand will</p>  <p>Table 12 c: Tree Species</p> <p>naturally convert to after harvesting or completing your prescribed management treatments. Natural conversion is expected because these tree species are already present as younger trees or will be able to seed in and become established once the proper seedbed, light and crown canopy conditions exist. Periodic thinning will be applied throughout the life of the stand to improve quality and vigor. Regeneration cutting will remove the old stand to provide the necessary open conditions and sunlight to naturally convert your stand.</p>  <p>Table 12 b: Aesthetics</p>
C2		Forced	<p>forced Conversion to</p>  <p>Table 12 c: Tree Species</p>	<p>FORCED CONVERSION A forced</p>  <p>Table 12 c: Tree Species</p> <p>conversion to will be done to this stand after harvesting or completing your prescribed management treatments. Natural conversion is not expected because these tree species are not present as younger trees or will not be able to seed in and become established without developing the proper seedbed, light and crown canopy conditions, or planting trees. Periodic thinnings will be applied throughout the life of the stand to improve quality and vigor. Regeneration cutting will remove the old stand to provide the necessary open conditions and sunlight to allow regeneration practices to occur.</p>  <p>Table 12 b: Aesthetics</p>

O	artificial regeneration (Forced Type Maintenance)	Type must be regenerated by seeding, planting, site preparation, prescribed burning, etc. (forest or non-forest species)	forced regeneration of timber type	<p>FORCED REGENERATION OF TIMBER TYPE. The tree species present in your forest will be managed and regenerated after harvesting or completing your prescribed management treatments through a combination of seeding, planting, site preparation, prescribed burning, etc. Natural conversion is not expected because desired tree seedlings are not present or will not become established without developing the proper seedbed, light and crown canopy conditions, or by planting trees.</p> <p>The best method to regenerate new trees is prescribed in your management plan. Forced maintenance of your timber type may take time or extra expenses. The success of your practice will take diligence and monitoring on your part.</p>
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Mandatory Practices Wording - Table 13





Treatment	Code	Label	Select Wording
Harvesting Methods	RE	1	<p>COPPICE REGENERATION HARVEST. Naturally regenerate this stand to vegetatively reproduce new trees (root and/or stump sprouts) using the coppice regeneration method. This involves <u>cutting all trees</u> (except reserve trees) to allow the trees to regenerate vigorously after the harvest. Variations</p> <p style="text-align: right;"> Table 13 a: A or WM Modification</p> <p>of coppice regeneration include: simple and compound.</p>
	RE	2	<p>CLEARCUT REGENERATION HARVEST. Naturally regenerate this stand using the clearcut regeneration method. This involves <u>cutting all trees</u> (except reserve trees) to allow the trees to regenerate from seed produced by adjacent timber stands or trees cut in the harvest operation. Time regeneration practice including site preparation to take advantage of good seed years. Variations include: uniform, alternate strip or patch, progressive</p> <p style="text-align: right;"> Table 13 a: A or WM Modification</p> <p>strip or patch, and without reserves.</p>
	RE	3A	<p>SEED TREE REGENERATION HARVEST - Seeding Cut. Naturally regenerate this stand using the seed tree regeneration method. This involves <u>cutting all trees</u> except seed trees and reserve trees. These desirable trees that are retained will produce seed to reforest the stand. Time regeneration practice including site preparation to take advantage of good seed years. Seed trees may be cut after new trees are established or reserved indefinitely. Variations include: single, group, and without reserves.</p> <p style="text-align: right;"> Table 13 a: A or WM Modification</p>
	RE	3B	<p>SEED TREE REGENERATION HARVEST – Final Cut. Conduct a field survey to determine success of regeneration in this stand. If adequate regeneration is <u>not</u> established, tree planting, seeding, and/or seedbed preparation, and follow-up treatments, will be required to bring stocking up to minimum- medium stocking levels. If adequate regeneration is established, conduct the final harvest to remove all seed trees except for reserve trees.</p> <p style="text-align: right;"> Table 13 a: A or WM Modification</p> <p>Variations include: without reserves.</p>
	RE	4a	<p>SHELTERWOOD REGENERATION HARVEST – Preparatory Cut. A preparatory cut is needed to naturally regenerate this stand using the shelterwood regeneration method. This involves crown thinning the stand to promote larger crowns of desired trees and thus greater seed-bearing</p> <p style="text-align: right;"> Table 13 a: A or WM Modification</p> <p>capacity.</p>

RE	4b	Shelterwood Harvest – seeding cut	<p>SHELTERWOOD REGENERATION HARVEST – Seeding Cut. Naturally regenerate this stand using the shelterwood regeneration method. This involves cutting of trees in the overstory and understory to create sunlight conditions favorable for natural regeneration and survival of desirable tree species. Cut trees that are less vigorous, of poorer quality, or are undesirable species. Retain well-spaced, desirable, vigorous overstory trees to produce seed to reforest the stand. Seed bed preparation may be required by scarification, use of herbicides, prescribed burning, and/or non-commercial cutting. Time regeneration practices including site preparation to take advantage of good seed years. Overstory trees will need to be harvested (except for reserve trees) after tree seedlings are established. Variations</p> <p style="text-align: right;">★ Table 13 a: A or WM Modification</p> <p>include: uniform, strip, patch, and without reserves.</p>
RE	4c.	Shelterwood Harvest – Final Cut	<p>SHELTERWOOD REGENERATION HARVEST – Final Cut. Conduct a field survey to determine success of regeneration in this stand. If adequate regeneration is <u>not</u> established, repeat the seeding cut treatment or plant to bring stocking up to minimum- medium stocking levels; additional follow-up treatments may be required. If adequate regeneration is established, conduct the final harvest to remove all overstory trees except for reserve trees.</p> <p style="text-align: right;">★ Table 13 a: A or WM modification</p> <p>Variations include: without reserves.</p>
RE	5	Overstory Removal	<p>OVERSTORY REMOVAL HARVEST. Harvest all overstory trees in this stand (except reserve trees) to release established seedlings and saplings to full sunlight. . Evaluation of adequate established advanced regeneration depends on the number and size of desirable seedlings and saplings present.</p> <p style="text-align: right;">★ Table 13 a: A or WM Modification</p> <p>Variation: without reserves.</p>
RA	6	Group Selection	<p>GROUP SELECTION HARVEST. Naturally regenerate this stand using the group selection regeneration method. This involves harvesting to create canopy group openings from 75 feet (1/10 acre) to 160 feet (1/2 acre) in diameter. Smaller openings will benefit more shade tolerant species, and larger openings encourage more mid-tolerant species. Site preparation may be required. Thin the remainder of the stand to reduce stocking and concentrate growth on more desirable trees by following the order of removal and tree retention guidelines.</p>
RA	7	Single Tree Selection	<p>SINGLE TREE SELECTION HARVEST. Naturally regenerate this stand using the single tree selection regeneration method. This involves harvesting individual trees of various size and age classes to provide space for regeneration and promote the growth of remaining trees. Select individual trees for removal from all overstocked size classes to achieve desired residual density levels by following the order of removal and tree retention guidelines. Create canopy regeneration gaps on approximately 10% of the stand to provide adequate sunlight to establish vigorous tree seedlings.</p>
RA	8	Conversion from Even-age to Uneven-age	<p>CONVERSION, EVEN-AGE TO UNEVEN-AGED: Develop uneven-aged stand conditions and naturally regenerate this stand using a combination of thinning and canopy gap formation techniques. Thin the stand and release the crowns of 40-60 crop trees per acre. Thin to achieve desired residual density levels by following the order of removal and tree retention guidelines. Create canopy regeneration gaps (30 to 60 feet in diameter) on approximately 10% of the stand to provide adequate sunlight required to establish vigorous</p>

				 Table 13 b: A or WM Modification	
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tree seedlings.




	RA	9	Patch Selection	<p>PATCH SELECTION HARVEST. Naturally regenerate this stand using the patch selection regeneration method. This involves harvesting to create even-aged patches from ½ to 2 acres in size. This system is most appropriate for the management of species mid-tolerant of shade, but can also be applied to manage shade intolerant and tolerant tree species. Sources of regeneration may include any of: well-established advanced regeneration, vegetative sprouts, or seed. If depending on seed, time regeneration practices, including site preparation, to take advantage of good seed years. In most stands, thin the remainder of the stand to reduce stocking and concentrate growth on more desirable trees by following the order of removal and tree retention</p> <p style="text-align: center;"> Table 13 c: A or WM Modification</p> <p>guidelines.</p>
	RE	10	Clearcut (rely on planting or direct seeding)	<p>CLEARCUT WITH ARTIFICIAL REGENERATION. Harvest all trees (except reserve trees) to allow full sunlight to reach the young trees that will be planted or directly seeded into the opening. Variations include: uniform, alternate strip or patch, progressive strip or patch, and without reserves.</p> <p style="text-align: center;"> Table 13 d: A or WM Modification</p>
	RA	12	Partial cut (uneven-aged)	<p>UNEVEN-AGE SELECTION WITH PLANTING. Harvest single trees or groups of trees of various size and age classes and regenerate new trees by planting trees or allowing tree seed to sprout in the resulting forest openings. Harvested and planted trees must be carefully selected to provide proper growing conditions for young trees and to achieve the target residual density levels and diversity of tree species. Thin the remainder of the stand to reduce stocking and concentrate growth on more desirable trees by following the</p> <p style="text-align: center;"> Table 13 b: A or WM Modification</p> <p>order of removal and tree retention guidelines.</p>
	RE	13	Other	<u>TEXT BOX</u>
Intermediate Treatment - Commercial	TC	1	THINNING	THINNING. Remove trees to reduce stand density to improve tree growth, enhance forest health or utilize trees that are at risk of mortality. Thinning is done to reduce stocking and concentrate growth on more desirable trees by following the order of removal and tree retention guidelines.
		2	Sanitation and Salvage Cutting	SANITATION and SALVAGE CUTTING. Remove trees infected by or highly susceptible to insect damage or disease to keep the rest of the stand healthy, or trees damaged by natural events (wind, fire, etc.).
		3	Release	RELEASE. Cut to free young trees (saplings and seedlings) from undesirable, usually overtopping, competing vegetation. The purpose of a release cut is to regulate species composition and to improve tree growth and quality.




Site Preparation	1	Seedbed preparation for natural or direct seeding	<p><u>SEEDBED PREPARATION.</u> Prepare a seed bed to encourage natural or direct seeding of desired trees and shrubs by using  Seed beds must expose soil so that seedlings can become established quickly. Erosion control measures may be necessary on steep land.</p> <p>Table 13 f: Site Prep</p>
	2	Preparation for planting	<p><u>PREPARATION FOR PLANTING.</u> Prepare the site for planting of  Planting sites must control grass and shrub competition so that young tree seedlings can become established quickly. Erosion control measures may be necessary on steep land.</p> <p>Table 13 f: Site Prep</p>
	3	Treatment to stimulate coppice or root suckering	<p><u>POST HARVEST TREATMENT.</u> Encourage sprouting of young trees after a harvest by cutting all trees and shrubs at ground level using  New trees will regenerate well if the treatment is done during a timber harvest or within the first growing season after the harvest is completed.</p> <p>Table 13 g: Site Prep</p>
	4	Slash Treatment	<p><u>SLASH TREATMENT.</u> Reduce the amount of slash after a timber harvest  to allow for planting or seeding of new trees by using Slash that is scattered, removed or cut within 2 feet of the ground will allow for natural or artificial regeneration of trees better than if it is left untreated. Erosion control measures may be necessary on steep ground.</p> <p>Table 13 h: Site Prep</p>
Artificial Regeneration	1	HAND PLANT	<p><u>HAND PLANT.</u> Hand plant a mixture of (KEY up to 4 species) at a rate of NO/Acre. Please contact your local forester for spacing recommendations. Custom planting crews may be available for hire to complete your tree planting project.</p>
	2	MACHINE PLANT	<p><u>MACHINE PLANT.</u> Machine plant a mixture of (KEY up to 4 species) at a rate of (KEY Number/Acre). Please contact your local forester for spacing recommendations. Custom planting crews may be available for hire to complete your tree planting project.</p>
	3	DIRECT SEED	<p><u>DIRECT SEED.</u> Broadcast or drill a mixture of (KEY up to 4 species) at a rate of (KEY lbs/Acre). Contact your local forester for spacing recommendations. Custom planting crews may be available for hire to complete your direct seeding project.</p>
BMPs for Water Quality	B01	STREAM CROSSINGS	<p><u>STREAM CROSSINGS.</u> Use temporary stream crossing structures, if possible. Locate stream crossings where the channel is straight and narrow with low banks and firm rocky soil. Seed and mulch exposed soil as soon as possible and install silt fences and straw bales to prevent soil erosion. Obtain any required permits from your municipal, county, state and federal agencies.</p>

	B02	RIPARIAN MANAGEMENT ZONES	<u>RIPARIAN MANAGEMENT ZONES.</u> Identify Riparian Management Zones (RMZs) on lake and streams. Protect water quality by locating roads outside of RMZs except for stream crossings. Use selective harvests to promote long-lived trees species appropriate to the site. Operate equipment to minimize soil exposure and compaction. Obtain any required permits from your municipal, county, state and federal agencies.
	B03	FOREST ROADS	<u>FOREST ROADS.</u> Design and maintain all forest roads to prevent erosion and provide adequate drainage and long-term stability. Install drainage structures to keep road surfaces dry. Stabilize any exposed soil with seed and mulch to prevent erosion.
	B04	TIMBER HARVESTING	<u>TIMBER HARVESTING.</u> Harvest timber when the ground is frozen or dry to prevent soil compaction and rutting. Prevent rutting deeper than six inches by moving equipment to drier, more stable locations, by using techniques such as slash mats or low ground pressure equipment, or by halting the operations until weather conditions improve.
	B05	MECHANICAL SITE PREPARATION AND TREE PLANTING	<u>MECHANICAL SITE PREPARATION AND TREE PLANTING.</u> Complete site preparation practices for natural regeneration and tree planting practices at times of the year when minimal erosion will occur.
	B06	PRESCRIBED BURNING AND WILDFIRE	<u>PRESCRIBED BURNING AND WILDFIRE.</u> Conduct prescribed burns for oak savanna and native prairie maintenance to minimize impacts on nearby bodies of water.
	B07	CHEMICALS	<u>CHEMICALS.</u> Use all chemicals (herbicides, insecticides, fertilizers, etc.) according to label information to minimize impacts on nearby bodies of water.
	B08	WETLAND HARVESTING	<u>WETLAND HARVESTING.</u> Limit activities in wetlands to when the ground is frozen or dry to minimize rutting. Keep slash out of open water and do not move upland slash into wetlands. Avoid equipment maintenance and fueling in wetlands. Obtain any required permits from your municipal, county, state and federal agencies.
	B09	WETLAND CROSSING	<u>WETLAND CROSSINGS.</u> Use temporary roads, if possible, to cross wetlands. Construct road approaches to divert runoff away from wetlands. Provide adequate cross drainage to minimize changes in surface and subsurface water flow in wetlands. Obtain any required permits from your municipal, county, state and federal agencies.

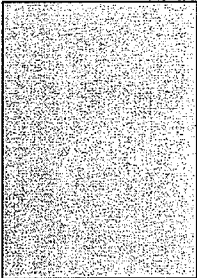
NON - Mandatory Practices Wording - TABLE 14

Treatment	Code	Practice	Select Wording
Intermediate/Non-Commercial Treatments	TN	1	THINNING. Remove trees to reduce stand density to improve tree growth, enhance forest health or recover potential mortality. Thinning is done to reduce stocking and concentrate growth on more desirable trees.
	TN	2	CULL TREE REMOVAL: Remove, girdle or kill trees that are poor in quality due to disease, injury, insect infestation or poor form to create conditions for remaining trees to thrive or to meet other land management goals. Work with your local DNR Forester to identify the trees to remove.
	TN	3	SANITATION and SALVAGE CUTTING. Remove trees infected by or highly susceptible to insect damage or disease to keep the rest of the stand healthy, or trees damaged by natural events (wind, fire, etc.). Work with your local DNR Forester to identify the trees to harvest.
	PR	4	PRUNE: Remove branches from standing trees to improve the quality of the future sawlog-sized tree.
	RL	5	Release – regeneration (via hand, herbicide, fire)  Table 14 a: Non-Mand Modificatio
	HM	6	Invasive plant control (via hand, herbicide, fire)  Table 14 a: Non-Mand Modificatio
	HM	7	Habitat management (via hand, herbicide, fire)  Table 14 a: Non-Mand Modificatio Specifically, it is recommended that you:
	HM	8	SURVIVAL CHECK: Conduct a follow-up field survey to determine the success of regeneration in a stand. Plan your next steps with your local DNR Forester after obtaining results.
Site Preparation	1	Seedbed preparation for natural or direct seeding	SEEDBED PREPARATION: Prepare a seed bed to encourage natural or  Table 13 f: Site Prep direct seeding of desired trees and shrubs by using Seed beds must expose mineral soil so that seedlings can become established quickly. Erosion control measures may be necessary on steep  Table 14 a: Non-Mand Modificatio land.

Artificial Regeneration	2	Preparation for planting	<p><u>PREPARATION FOR PLANTING</u>: Prepare the site for planting of desirable trees, grasses, or shrubs by using . Planting sites must control grass and shrub competition so that young tree seedlings can become established quickly. Erosion control measures may be necessary on steep land.</p> <p style="text-align: center;"> Table 13 f: Site Prep</p>
	3	Treatment to stimulate coppice or root suckering	<p><u>POST HARVEST TREATMENT</u>. Encourage sprouting of young trees after a harvest by cutting all trees and shrubs at ground level using</p> <p style="text-align: center;"> Table 13 g: Site Prep</p> <p>New trees will regenerate well if the treatment is done during a timber harvest or within the first growing season after the harvest is completed.</p>
	4	Slash Treatment	<p><u>SLASH TREATMENT</u>. Reduce the amount of slash after a timber harvest</p> <p style="text-align: center;"> Table 13 h: Site Prep</p> <p>to allow for planting or seeding of new trees by using Slash that is scattered, removed or cut within 2 feet of the ground will allow for natural or artificial regeneration of trees better than if it is left untreated. Erosion control measures may be necessary on steep ground.</p>
	5	Motorized mechanical equipment	<p><u>MOTORIZED MECHANICAL EQUIPMENT</u>. Site preparation can be done by plowing, disking, raking, chopping, scalping, and trenching, among other approaches. Your local forester can help you determine the best piece of equipment to successfully prepare your seedbed.</p>
	6	Mechanical treatment with hand tools	<p><u>HAND TOOLS</u>. Site preparation can be done by pulling, cutting or girdling competing vegetation with chain saws, hand saws, weed whips, brush saw, etc. Your local forester can help you determine the best tools and methods to prepare your site for natural or artificial regeneration.</p>
	7	Prescribed fire	<p><u>PRESCRIBED FIRE</u>. Effective and safe use of prescribed fire requires appropriate equipment and training. Please contact your local forester, fire warden or fire department for advice and burning permits.</p>
	8	Chemical treatment	<p><u>HERBICIDES</u>. Apply all chemical treatments according to the label instructions. Please contact your local forester for help in selecting the right herbicide and to receive instructions on timing, application rate and proper weather conditions.</p>
	9	Other	Text Box – limit to 150 characters.
	1	HAND PLANT	<p><u>HAND PLANT</u>: Hand plant a mixture of [KEY up to 4 species] at a rate of [KEY No/Acre]. Please contact your local forester for spacing recommendations. Custom planting crews may be available for hire to complete your tree planting project.</p>
2	MACHINE PLANT	<p><u>MACHINE PLANT</u>: Machine plant a mixture of [KEY up to 4 species] at a rate of [KEY no/Acre]. Please contact your local forester for spacing recommendations. Custom planting crews may be available for hire to complete your tree planting project.</p>	

	3	DIRECT SEED	<u>DIRECT SEED</u> : Broadcast or drill a mixture of [KEY up to 4 species] at a rate of [KEY lbs./Acre]. Please contact your local forester for spacing recommendations. Custom planting crews may be available for hire to complete your direct seeding project.
Invasive Plant Management	IS01	INVASIVE PLANT SPECIES CONTROL – CHEMICAL	<u>INVASIVE SPECIES CONTROL CHEMICAL CONTROL</u> . Use herbicides according to label information to control invasive plant populations. Herbicide control includes cut-stump treatment, basal bark treatment and foliar application. Your local forester can help you choose the right herbicide to use in your invasive plant control project.  Table 14 a: Non-Mand Modificatio
	IS02	INVASIVE PLANT SPECIES CONTROL – MOTORIZED MECHANICAL EQUIPMENT	<u>INVASIVE SPECIES CONTROL MOTORIZED MECHANICAL EQUIPMENT</u> . Use motorized mechanical equipment to control invasive plant populations. Your local forester can help you determine the best piece of equipment to control your invasive population.  Table 14 a: Non-Mand Modificatio
	IS03	INVASIVE PLANT SPECIES CONTROL – HAND TOOLS	<u>INVASIVE SPECIES CONTROL HAND TOOLS</u> . Use hand tools to control invasive plant populations. Your local forester can help you determine the best method and tools to control your invasive population.
	IS04	INVASIVE PLANT SPECIES CONTROL – PRESCRIBED FIRE	<u>INVASIVE SPECIES CONTROL – PRESCRIBED FIRE</u> . Conduct prescribed burns for oak savanna and native prairie maintenance to maximize control of invasive species. Since fire may decrease or increase invasive plant reproduction, please consult with experienced prescribed burn staff to determine the best use of fire.  Table 14 a: Non-Mand Modificatio
	IS05	INVASIVE PLANT SPECIES CONTROL – BIOLOGICAL	<u>INVASIVE PLANT SPECIES CONTROL – BIOLOGICAL</u> . Control invasive species through known biological methods. Consult with your local DNR office for specific recommendations.
Wildlife Management	W01	AGE-CLASSES DIVERSITY	<u>AGE-CLASS DIVERSITY</u> . Harvest years were modified to create age class diversity for wildlife populations, especially for grouse.
	W02	SHRUB UNDERSTORY	<u>SHRUB UNDERSTORY</u> . Increase or maintain the shrub understory for wildlife food and cover by planting additional shrubs, thinning of plantations, or clear-cutting strips or small patches along woodlot edges.
	W03	SHELTER/NEST COVER	<u>SHELTER/NEST COVER</u> . Provide shelter and nest cover for wildlife by planting small conifer stands and hedgerows, protection of cavity trees, or creation of brush piles or nest boxes.
	W04	FOOD SOURCES	<u>FOOD SOURCES</u> . Maintain or enhance wildlife food sources through preservation or management of mast producing trees (oaks, hickories), creation or maintenance of grass-forb opening and trails, fruit and berry plantings, wildlife food patches, and protection of snag trees.

	W05	RECREATIONAL OPPORTUNITIES	<u>RECREATIONAL OPPORTUNITIES</u> . Provide and maintain recreational opportunities by mowing walking trails, creating observation blinds, and encouraging hunting in units with too many deer.
	W06	DAMAGE CONTROL	<u>DAMAGE CONTROL</u> . Reduce wildlife damage by protecting seedlings from deer, rabbit or rodent browsing.
	W07	COARSE WOODY DEBRIS	<u>COARSE WOODY DEBRIS</u> . Retain or enhance the amount of coarse woody debris in a stand to food, cover, habitat structure, and growing sites for numerous plants and animals.
	W08	CUTTING PATTERNS	<u>CUTTING PATTERNS</u> . Provide site and landscape-level wildlife habitat requirements by using a variety of sizes and shapes of harvest areas.
Aesthetic Management	A01	VISUAL PENETRATION OR DIFFUSION	<u>VISUAL PENETRATION OR DIFFUSION</u> : Moderate or soften the appearance of silvicultural practices near trails, roads or other developments where people are likely to congregate or share a common vantage point by encouraging understory development, longer-lived tree species, and tree crown expansion.
	A02	CUTTING STRATEGIES	The harvest schedule or boundary was adjusted for esthetic purposes.
	A03	SILVICULTURAL SYSTEMS	Due to the highly aesthetic appeal of this area, conversion from an even-aged timber management system to an all-aged timber management system is being done by retaining long-lived, shade tolerant trees as a seed source until a fully stocked understory is created.
	A04	TREE RETENTION	<u>TREE RETENTION</u> : Retain individual trees or groups of trees to diversify the age, structure or appearance of the stand following harvest.
	A05	SLASH CONTROL	<u>SLASH CONTROL</u> : Dispose of bark, tree tops, branches or stumps that would otherwise remain in the stand following generally accepted silvicultural practices next to roads and other highly aesthetic areas.
Endangered Resource Management	E01	ESTABLISH NO-CUT AREA	<u>NO-CUT AREA</u> : Maintain a no-cut area to protect a known rare species habitat or special feature. The width of the no-cut area will depend upon the species or special feature to be protected.
	E03	FOLLOW BMPs FOR WATER QUALITY	<u>AQUATIC RARE SPECIES HABITAT PROTECTION</u> : Aquatic rare species habitat will be protected by following BMPs for Water Quality. See the <i>BMPs for Water Quality</i> section at the back of the management plan and the follow through with BMP recommendations made throughout your plan.
	E04	LIMIT RE-ENTRY SCHEDULE	<u>LIMIT HARVEST RE-ENTRY</u> : Limit harvest to one entry for each planned treatment to minimize impact to NHI species (e.g., to minimize impact on nesting rare birds).
	E06	RECOMMEND SURVEYS PRIOR TO SALE ESTABLISHMENT	<u>NHI SURVEY</u> : Conduct a survey for rare species prior to timber sale establishment. Habitat for endangered resources is possible in this area and it is possible that endangered, threatened or special concern species may have migrated into the area.

	E07	HARVEST TIMING/ SEASONAL RESTRICTION	<u>HARVEST TIMING/SEASONAL RESTRICTIONS</u> . Restrict timber harvest timing to avoid impacts to nesting birds or other NHI Working List species. Examples include but are not limited to avoiding the breeding season for birds or harvesting during frozen conditions to avoid impacting a rare plant or disrupting hydrology to a seep area.
	E09	OTHER	TEXT BOX

