



APPENDIX 201J-PLAN TEXT REPORT

Cover Type Size

Seedling & Saplings (0-5")	Seedlings and Saplings
Softwood Poles (5-9")	Poletimber
Hardwood Poles (5-11")	Poletimber
Softwood Small Sawlogs (9-15")	Small Sawtimber
Hardwood Small Sawlogs (11-15")	Small Sawtimber
Large Sawlogs (15"+)	Large Sawtimber

Forest Cover Type

Aspen	<p>Aspen Forest. Aspen Forests consist predominately of trembling aspen (also known as quaking aspen and white popple) and bigtooth aspen (also known as yellow popple). Aspen forests in the northern parts of the state sometimes contain balsam poplar. Red maple, paper birch, balsam fir, red oak, white pine and other native trees commonly grow with Aspen. Aspen is a relatively short-lived tree that usually regenerates all at once following a major disturbance such as wind, fire or cutting. Aspen requires full sunlight and does not grow well in the 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>Balsam Fir Forest. Balsam Fir Forests consist of more than 50% balsam fir; in mixed swamp conifer stands, balsam fir is predominant. Northern white cedar, black spruce, white spruce, tamarack, white pine, birch, aspen and other native trees commonly grow with balsam fir. 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>Black Spruce Forest. Black Spruce Forests contain more than 50% black spruce; in mixed swamp conifer stands, black spruce is predominant. Tamarack, northern white cedar, balsam fir, aspen, white pine and other native trees commonly grow with black spruce.</p> <p>Black spruce grows almost entirely on peat bogs, but may also occur on muck-filled seepages, and along streams. Black spruce occasionally grows in mineral soil adjacent to swamps. Black spruce is subject to wind throw due to the high water table. When selecting a cutting method, consider 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>
Bottomland Hardwoods	<p>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. Green ash, silver maple, swamp white oak, eastern cottonwood, river birch, or American elm trees dominate most bottomland hardwood forests. Dutch Elm Disease has limited management of elm. Hackberry, basswood, black ash, red maple, red oak, black willow and other native trees commonly grow with bottomland hardwoods. In parts of the state reed canary grass, a non-native invasive plant, will quickly take over bottomland hardwoods stands opened to excessive sunlight through over-cutting or natural disturbance. Bottomland hardwoods grow on flood plain soils with a wide range of soil textures.</p>
Central Hardwoods	<p>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 oak or maple do not dominate these stands. 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>
Fir Spruce-*OLD CODE, RECODE	Fir Spruce.
Hemlock	<p>Hemlock Forest. Hemlock Forests are composed of more than 50% hemlock. Yellow birch, white pine, sugar maple, red maple, balsam fir or, in eastern Wisconsin, American beech and other native trees commonly grow with hemlock. Hemlock is long-lived, shade tolerant and often grows in uneven age forests. Historically, hemlock 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>

**Forest Cover Type**

Jack Pine	<p>Jack Pine Forest. Jack Pine Forests are composed of more than 50% jack pine. Red pine, white pine, oak, aspen and other native trees commonly grow with jack pine.</p> <p>Jack pine needs full sunlight and regenerates after forest fires. Jack pine is declining in abundance in Wisconsin due to fire control efforts. It is a hardy species and is most common on dry sandy soils, but grows best on well-drained loamy sands. It also grows on wet sites.</p>
Miscellaneous Coniferous	<p>Miscellaneous (Other) Conifer Forest. Miscellaneous (Other) Conifer Forests is a catchall label 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 Deciduous	<p>Miscellaneous (Other) Deciduous Forest. Miscellaneous (Other) Deciduous Forests is a catchall label 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 Hardwoods	<p>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. Red maple, oak, hemlock, or balsam fir and other native trees commonly grow with northern hardwoods. 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>
Oak	<p>Oak Forest. Oak Forests are composed of over 50% oak. In Wisconsin, red oak, black oak, pin oak, white oak, and bur oak are common types of oak trees. Aspen, red maple, hickory, white pine, white birch, basswood, black cherry, sugar maple, elm, and jack pine commonly grow in oak forests. 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 might include black oak, white oak, northern pin oak, and bur oak. On dry sites, hickories, black cherry, aspen, red maple, and paper birch commonly grow with oak. In northern Wisconsin, pines may also grow in 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, basswood, hickories, ironwood, black cherry, elms, red maple, or white pine may grow with oak. On the richest sites, sugar maple or white ash might also grow with oak. 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. 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. To regenerate oak, foresters commonly mimic the effects of fire using mechanical tools or chemical application.</p>
Red Maple	<p>Red Maple Forest. Red Maple Forests are composed of over 50% red maple. Ash, elm, aspen, white birch, white pine, balsam fir, white cedar, oak and other native trees commonly grow with red maple. Over the last century, red maple has dramatically increased in abundance throughout the state. Red maple can produce abundant seed and stumps readily sprout. It tolerates shade, and grows on a wide range of soils from sands to loams, and in conditions from dry to wet. It grows best on well-drained loamy soils.</p>
Red Pine	<p>Red Pine Forest. Red Pine Forests are composed of more than 50% red pine. White and jack pine, aspen, oak and other native trees commonly grow with red pine. 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>



Forest Cover Type

Scrub Oak	<p>Scrub Oak Forests consist of over 50% black oak, pin oak, white oak, or bur oak. Trees with low quality timber and slow growth rates characterize scrub oak forests, which are located on nutrient poor sites such as ridge tops and sandy soils. Trees commonly growing with these oaks may include aspen, red maple, white birch, hickory, black cherry, white pine or jack pine.</p> <p>All oaks require significant disturbance of the forest, both overstory and understory, in order to regenerate. Scrub oak forests tend to regenerate the easiest of all oak forests since there is less competition from other trees on the nutrient poor sites. Fire is one tool that facilitates the regeneration and maintenance of oak forests. To regenerate oak, foresters commonly mimic the effects of fire using mechanical tools or chemical application.</p>
Swamp Conifer-*OLD CODE, RECODE	Swamp Conifer.
Swamp Hardwoods	<p>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. Aspen, white cedar, balsam fir, white pine, white birch and other native trees commonly grow with swamp hardwoods.</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 that 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, consider 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>Tamarack Forest.Tamarack Forests are composed of more than 50% tamarack. Spruce, balsam fir, hemlock, black ash, birch, white pine and other native trees commonly grow with tamarack.</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 of 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>
Walnut	<p>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. Central hardwoods, oaks, northern hardwood species as well as red cedar, box elder and white pine commonly grow with walnut.</p> <p>Good soil quality is extremely important to walnut trees. Well-drained, fertile loamy soils support the best growth.</p>
White Birch	<p>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; it usually grows in places where fire or other disturbances have opened up the forest canopy. Aspen, balsam fir, red oak, red maple, white and red pine and other native trees commonly grow with white birch. When aspen is present, birch has difficulty regenerating after harvest due to the vigorous sprouting of aspen.</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>White Cedar Forest.White Cedar Forests are composed of more than 50% white cedar; in mixed swamp conifer stands, white cedar is predominant. Spruce, tamarack, balsam fir, hemlock, black ash, birch, white pine and other native trees commonly grow with white cedar. White cedar forests are often difficult to regenerate.</p> <p>White cedar grows best on upland soils of limestone origin but most commonly grows in swamps.</p>
White Pine	<p>White Pine Forest.White Pine Forests consist of more than 50% white pine. Red and jack pine, aspen, paper birch, red maple, oak, balsam fir, white spruce, eastern hemlock and other native trees commonly grow with white pine. White pine is a long-lived tree species that was common in Wisconsin's historic forests. Heavy logging during the cutover made white pine scarce for a time. As trees are becoming old enough to be good seed producers, its numbers are increasing.</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>White Spruce Forest.White Spruce Forests consist of more than 50% white spruce. Aspen, white birch, balsam fir and other native trees commonly grow with white spruce. White spruce is native only to northern Wisconsin, but has been widely planted in plantations in southern Wisconsin where nearby tree species often invade it 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>
Campground-*OLD CODE	Campground.



Forest Cover Type

Developed Use-*OLD CODE	Developed Use.
Emergent Vegetation	Emergent Vegetation. Emergent Vegetation grows in marshes or wetlands and contains mostly cattails, river bulrush or tall sedges. Cattails, river bulrush and sedges generally grow in muck soils saturated with water year round.
Farm Land-*OLD CODE	Farm Land.
Farmland, Grazed-*OLD CODE	Farmland (Grazed).
Herbaceous Vegetation	Herbaceous Vegetation. Herbaceous (non-woody) Vegetation grows on upland sites and contains a variety of plants, including bracken fern, sweet clover, giant ragweed, stinging nettle, upland aster, goldenrod, prairie dock and other types of herbaceous plants. Many sites with herbaceous vegetation are former agricultural fields left fallow for a number of years that are unable to grow trees because of frost pockets or other environmental conditions. Tree or shrub seedlings may have started from natural seed dispersal but the grassland still dominates. Herbaceous vegetation grows on a variety of soils.
Low - Growing Shrubs	Low Growing Shrubs. Low Growing Shrubs grow on upland sites and predominantly consist of blueberry, raspberry and other shrubs. Tree seedlings or taller shrubs may have started from natural seed dispersal but the shrubs still dominate. Low growing shrubs grow on a variety of soils.
Lowland Brush - Alder	Alder Swamp. Alder Swamps are wet and contain more than 50% alder. Alder swamps usually occur in peat and muck soils.
Lowland Brush - Bog Birch	Bog Birch Swamp. Bog Birch Swamps are wet and contain more than 50% bog birch. Bog birch swamps usually occur in peat and muck soils.
Lowland Brush - Red Dogwood	Dogwood Swamp. Dogwood Swamps are wet and contain more than 50% silky and red osier dogwood. Dogwood swamps usually occur in peat and muck soils.
Lowland Brush -Willow	Willow Swamp. Willow Swamps are wet and consist of more than 50% willow. Willow swamps usually occur in peat and muck soils.
Lowland Brush-*OLD CODE	Lowland Brush.
Lowland Grass	Lowland Grass. Lowland Grass areas predominantly consist of reed canary grass, bluejoint, redtop, cordgrass, and other grasses that grow in wet or periodically flooded conditions. Lowland grasses can grow in a variety of soils, but usually grow in wetter silt and clay soils that retain a lot of water.
Lowland Herbaceous Vegetation	Lowland Herbaceous Vegetation. Lowland Herbaceous Vegetation contains 50% or more of non-woody vegetation, such as lowland asters, stinging nettle, and wild sunflowers, but few trees. Lowland herbaceous vegetation can grow in a variety of soils, but usually grows in wetter silt and clay soils.
Marsh-*OLD CODE	Marsh.
Minor Lake	Small Lake or Pond. Small Lakes and Ponds can occur on mineral soil that is impervious to infiltration. Some lakes and ponds have sand, gravel or rock bottoms and others have silt and muck bottoms. Each soil type provides certain habitat characteristics for aquatic species.
Minor Stream	Small Stream. Small Streams can be perennial and flow year round or be intermittent and flow during snow melt or periods of heavy rain. Small streams can be found on mineral soil that is impervious to infiltration. Some small streams have sand, gravel or rock bottoms, and others have silt and muck bottoms. Each soil type provides certain habitat characteristics for aquatic species.
Motorized Vehicle Trail-*OLD	Motorized Vehicle Trail.
Muskeg Bog	Muskeg or Bog. Muskegs or Bogs are on lowland sites and predominantly consist of sphagnum moss, cotton grass, leatherleaf, cranberry, Labrador tea and other wetland plants. Muskegs support scattered trees, including black spruce, tamarack, and jack pine. Muskegs and bogs generally occur in muck soils that are saturated with water year round.
Nature or Hiking Trail-*OLD	Nature or Hiking Trail.
Parking Area-*OLD CODE	Parking Area.
Picnic Area-*OLD CODE	Picnic Area.
Prairie Grass	Prairie Grasses. Prairie Grasses are historic prairie communities dominated by little bluestem, side-oats grama, hairy grama, prairie dropseed, Indiangrass, needlegrass, big bluestem, switchgrass, junegrass, panic grasses, and poverty oat grass. Prairies occur on a wide variety of topographies, soil types, and moisture conditions - from water-covered peat to the driest sandy soils.
Recreational-*OLD CODE	Recreational.
Right Of Way	Rights-of-Way. Rights-of-Way (ROW) are easements granted to another party for the right to use your land. They include, but are not limited to roads, railroads, gas, electric, telephone and internet lines.

**Forest Cover Type**

Rock Outcrops	Rock Outcrops or Sand Dunes. Rock, gravel or sand deposits are located in areas of the state where bedrock or other mineral deposits lie on or near the ground surface. These are usually small areas and typically do not support growth of trees or shrubs. Herbaceous plants and grasses may grow in cracks or protected areas of these sites where enough moisture and soil nutrients are available to sustain plant growth.
Snowmobile/Horse Trail-*OLD	Snowmobile/Horse Trail.
True Grasses	True Grass Lands. True Grasslands occur on upland sites and are predominately brome-grass, quackgrass, bluegrass, timothy, big and little bluestem, Indiangrass and other types of grasses. Many upland grasslands are former agricultural fields left fallow for a number of years that are unable to grow trees because of frost pockets or other environmental conditions. True grasses grow on a variety of soils.
Upland Brush	Upland Brush. Upland Brush sites have 50% tall persistent shrubs and less than 10% trees. Hazel, gray dogwood, juneberry, sumac, ninebark, and prickly ash commonly grow on upland brush sites. Upland brush can grow on a variety of soils.
Upland Grass-*OLD CODE	Upland Grass.
Water	Water. Large bodies of water can occur on mineral soil that is impervious to infiltration. Some water bodies have sand, gravel or rock bottoms and others have silt and muck bottoms. Each soil type provides certain habitat characteristics for aquatic species.

Invasive Level

Present	Your plan writer found the following invasive plant species during the forest inventory process:
Not Present	
Not Evaluated (Not Trained)	
Not Evaluated (Off Season)	
Not Evaluated (Old Recon)	

Practice

HARVEST: Coppice (e.g. aspen regeneration cuts)	<p>COPPICE REGENERATION HARVEST. Regenerate this stand by cutting all trees except designated reserved trees. This coppice regeneration method naturally allows trees to regenerate vigorously from root and/or stump sprouts after harvest. Variations of coppice regeneration include simple and compound. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
HARVEST: Clearcut (relying on regeneration by seed)	<p>CLEARCUT REGENERATION HARVEST. Regenerate this stand by cutting all trees except designated reserved trees. This clearcut regeneration method allows trees to regenerate naturally from seed produced by adjacent timber stands or trees cut in the harvest operation. To improve the regeneration results, time your regeneration and site preparation practices to take advantage of good seed years. Variations of clearcut regeneration include uniform, alternate strip or patch, progressive strip or patch, and without reserve trees. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>

**Practice**

HARVEST: Clearcut (rely on planting or direct seeding)	<p>CLEARCUT WITH ARTIFICIAL REGENERATION. Harvest all trees except designated reserve trees. This clearcut regeneration method allows full sunlight to reach the young trees planted or directly seeded into the opening. Variations of clearcut regeneration include uniform, alternate strip or patch, progressive strip or patch, and without reserve trees. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
HARVEST: Seed tree harvest – Seeding cut	<p>SEED TREE REGENERATION HARVEST - Seeding Cut. Regenerate this stand by cutting all trees except seed trees and designated reserve trees. This seeding cut of the seed tree regeneration method retains desirable trees that will produce seed to reforest the land naturally. To improve the regeneration results, time your regeneration and site preparation practices to take advantage of good seed years. You may reserve seed trees indefinitely or cut them after new trees are established. Variations of the seeding cut of the seed tree regeneration method include single, group, and without reserve trees. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
HARVEST: Seed tree harvest – final cut	<p>SEED TREE REGENERATION HARVEST – Final Cut. Conduct a field survey to determine the success of regeneration in this stand. If adequate regeneration is not 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 designated reserve trees. A variation of the final cut of the seed tree regeneration method is without reserve trees. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
HARVEST: Shelterwood Harvest – preparatory cut	<p>SHELTERWOOD REGENERATION HARVEST – Preparatory Cut. To regenerate this stand naturally using the shelterwood regeneration method, you must do a preparatory cut. Thin the crowns in this stand to promote larger crowns of desired trees and thus greater seed-bearing capacity. [MODIFIER]</p>
HARVEST: Shelterwood Harvest – seeding cut	<p>SHELTERWOOD REGENERATION HARVEST – Seeding Cut. Regenerate this stand by cutting trees in the overstory and understory. This seeding cut of the shelterwood regeneration method creates 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 desirable, well-spaced, vigorous overstory trees to produce seed to reforest the stand. If required, prepare the seedbed using scarification, herbicide application, prescribed burning, and/or non-commercial cutting. To improve regeneration results, time your regeneration and site preparation practices to take advantage of good seed years. After tree seedlings are established, harvest overstory trees except designated reserve trees. Variations of the seeding cut of the shelterwood regeneration method include uniform, strip, patch, and without reserve trees. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>

**Practice**

HARVEST: Shelterwood Harvest – Final Cut	<p>SHELTERWOOD REGENERATION HARVEST – Final Cut. Conduct a field survey to determine the success of regeneration in this stand. If adequate regeneration is not established, repeat the seeding cut treatment or plant trees to bring stocking up to minimum- medium stocking levels; additional follow-up treatments might be required. If adequate regeneration is established, conduct the final harvest to remove all overstory trees except for designated reserve trees. A variation of the final cut of the shelterwood regeneration method is without reserve trees. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
HARVEST: Overstory Removal	<p>OVERSTORY REMOVAL HARVEST. Harvest all overstory trees in this stand except designated reserve trees to allow full sunlight to reach established seedlings and saplings. Evaluation of the number and size of desirable seedlings and saplings present determines if there is adequate establishment of advanced regeneration. A variation of overstory removal is without reserve trees. [MODIFIER]</p>
HARVEST: Group Selection	<p>GROUP SELECTION HARVEST. Regenerate this stand by harvesting to create canopy group openings from 75 feet (1/10 acre) to 160 feet (1/2 acre) in diameter. This group selection regeneration method sets up natural conditions that benefit different tree species. The smaller openings benefit more shade tolerant species and the larger openings encourage growth of those species that do well in less shade. The stand might require site preparation. Thin the remainder of the stand to reduce stocking and concentrate growth on trees that are more desirable by following the order of removal and tree retention guidelines. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
HARVEST: Single Tree Selection	<p>SINGLE TREE SELECTION HARVEST. Regenerate this stand by harvesting individual trees of various size and age classes. This single tree selection regeneration method provides space for natural regeneration and promotes growth of the 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. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
HARVEST: Conversion from Even-age to Uneven-age	<p>CONVERSION, EVEN-AGE TO UNEVEN-AGED. Use a combination of thinning and canopy gap formation techniques to develop uneven-aged stand conditions. This will allow the stand to regenerate naturally. Remove trees that are blocking the crowns of or in competition with more desirable trees, leaving 40-60 crop trees per acre. Thin the stand 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 tree seedlings. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>


Practice

HARVEST: Patch Selection Harvest	<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 guidelines. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
HARVEST: Partial cut (uneven-aged)	<p>UNEVEN-AGE SELECTION WITH PLANTING. Harvest single trees or groups of trees of various sizes and ages. Regenerate the stand by planting trees or allowing tree seeds to sprout in the resulting forest openings. Carefully select trees to harvest and plant to provide proper growing conditions for young trees, tree species diversity, and to achieve the target residual density levels. Thin the remainder of the stand to reduce stocking and concentrate growth on trees that are more desirable by following the order of removal and tree retention guidelines. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
THINNING: Thinning	<p>THINNING. Remove trees to reduce stand density thereby improving tree growth and enhancing forest health, or to utilize trees that are at risk of mortality. Thin the stand to reduce stocking and concentrate growth on trees that are more desirable by following the order of removal and tree retention guidelines. [MODIFIER]</p>
THINNING: Sanitation and Salvage Cutting	<p>SANITATION and SALVAGE CUTTING. Remove trees damaged by natural events (wind, fire, etc.), or trees infected by or highly susceptible to insect damage or disease to keep the rest of the stand healthy. [MODIFIER]</p>
TSI: TSI Thinning	<p>THINNING. Reduce stand density by removing trees to improve tree growth, enhance forest health or recover potential mortality. Thin to reduce stocking and concentrate growth on trees that are more desirable. [MODIFIER]</p>
TSI: Cull tree removal (includes girdling)	<p>CULL TREE REMOVAL. Remove, girdle or kill trees that are poor in quality due to disease, injury, insect infestation or poor form. This creates conditions for remaining trees to thrive or to meet other land management goals. Work with your local WDNR Forester to identify the trees to remove. [MODIFIER]</p>
TSI: Sanitation and Salvage Cutting	<p>SANITATION and SALVAGE CUTTING. Remove trees damaged by natural events (wind, fire, etc.), or trees infected by or highly susceptible to insect damage or disease to keep the rest of the stand healthy. Work with your local WDNR Forester to identify the trees to harvest. [MODIFIER]</p>
NONE: No Mandatory Practices expected on this stand for the remainder of the plan.	.
TSI: Pruning	<p>PRUNE. Remove branches from standing trees to improve the quality of the future sawlog sized tree. [MODIFIER]</p>
TSI: Release – regeneration (via hand, herbicide, fire)	<p>RELEASE. Remove or kill overtopping or competing trees to benefit trees that are more desirable. [MODIFIER]</p>
TSI: Invasive plant control (via hand, herbicide, fire)	<p>INVASIVE PLANT CONTROL. Take specific measures to manage plant or tree species whose aggressive growth or reproductive patterns threaten the health or regeneration of the stand. Get the latest information on control measures from your local WDNR office or WDNR Website. [MODIFIER]</p>
TSI: Habitat management (via hand, herbicide, fire)	<p>HABITAT MANAGEMENT. Manage this area for wildlife habitat according to specific management recommendations prescribed or approved by a wildlife biologist, endangered resource specialist or other resource professional. Management practices may include use of hand tools, machinery, herbicides (FSC approved), and prescribed fire. Specifically, it is recommended that you: [ENTER ADDITIONAL TEXT] [MODIFIER]</p>
TSI: Survival check of planting/seeding/natural reg.	<p>SURVIVAL CHECK. Conduct a follow-up field survey to determine the success of regeneration in a stand. Plan your next steps with your local WDNR Forester after obtaining results. [MODIFIER]</p>


Practice

SITEPREP: Seedbed preparation for natural or direct seeding	SEEDBED PREPARATION.Prepare a seed bed to encourage natural or direct seeding of desired trees and shrubs. [MODIFIER] To encourage quick establishment of seedlings, expose the soil in the seedbeds. Erosion control measures might be necessary on steep land.
SITEPREP: Preparation for planting	PREPARATION FOR PLANTING.Prepare the site for planting of desirable trees, grasses, or shrubs. [MODIFIER] To encourage quick establishment of young tree seedlings, control grass and shrub competition on the planting site. Erosion control measures might be necessary on steep land. [MODIFIER]
SITEPREP: Treatment to stimulate coppice or root suckering	POST HARVEST TREATMENT.Encourage sprouting of young trees after a harvest by cutting all trees and shrubs at ground level. [MODIFIER] New trees will regenerate well if you treat during a timber harvest or within the first growing season after completion of the harvest.
SITEPREP: Slash Treatment	SLASH TREATMENT.Reduce the amount of slash after a timber harvest to allow for planting or seeding of new trees. [MODIFIER] Slash that is scattered, removed or cut within two feet of the ground will allow for natural or artificial regeneration of trees better than if left untreated. Erosion control measures might be necessary on steep ground.
PLANTING: Hand Plant	<p>HAND PLANT.Hand plant a mixture of [ENTER up to 4 species] at a rate of [ENTER Number/Acre]. Please contact your local WDNR forester for spacing recommendations. Custom planting crews may be available for hire to complete your tree planting project. Check this stand for successful regeneration. If this stand has not adequately regenerated three years after hand planting, additional management practices will be required. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
PLANTING: Machine Plant	<p>MACHINE PLANT.Machine plant a mixture of [ENTER up to 4 species] at a rate of [ENTER Number/Acre]. Please contact your local WDNR forester for spacing recommendations. Custom planting crews may be available for hire to complete your tree planting project. Check this stand for successful regeneration. If this stand has not adequately regenerated three years after machine planting, additional management practices will be required. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
PLANTING: Direct Seed	<p>DIRECT SEED.Broadcast or drill a mixture of [ENTER up to 4 species] at a rate of [ENTER lbs/Acre]. Please contact your local WDNR forester for spacing recommendations. Custom planting crews may be available for hire to complete your direct seeding project. Check this stand for successful regeneration. If this stand has not adequately regenerated three years after direct seeding, additional management practices will be required. [MODIFIER]</p> <p>For most Wisconsin forest types, adequate tree reproduction will be established in 3-5 years following the regeneration practice or additional management practices may be required to ensure successful tree reproduction. Some forest stands may need a longer regeneration period, but these situations must be documented and closely monitored to ensure success. Examples of additional management may include hand planting, controlling competing vegetation, or providing tree protection. As the landowner, you should be aware of the need for these potential follow-up actions, and that they may be required in order to complete this mandatory practice.</p>
PRE-HARVEST: Pre-harvest treatment to insure adequate regeneration	.[MODIFIER]
POST-HARVEST: Post-harvest treatment to insure adequate regeneration	.[MODIFIER]
OTHER: Other (enter title and text for plan below)	.[MODIFIER]

Practice Modifier

Aesthetics - Cutting Strategy	The plan preparer adjusted the harvest schedule or boundary to meet your aesthetic goals.
Aesthetics - Silvicultural System	To respect your aesthetic preferences, the plan preparer modified this harvest practice to retain long-lived, shade tolerant trees as a seed source until a fully stocked understory develops, thereby making this an all-aged stand.



Practice Modifier

Aesthetics - Lifespan	To meet your goal of maintaining a visually appealing stand, the plan preparer extended the date of this harvest to the biological life expectancy of the trees instead of the generally accepted rotation age.
Wildlife - Extended Rotation	To benefit and provide extra habitat for the species on the NHI Working list found on or in the area surrounding your property, the plan preparer modified this harvest to cut trees at an increased age or diameter, instead of the generally accepted rotation age.
NHI Protection	When you carry out this practice, you must protect threatened, endangered or special concern species and habitats.
Wildlife - Age Class Diversity	The plan preparer changed the date of this harvest to create different age classes of the trees for ruffed grouse and other wildlife in accordance with your stated goals.
Wildlife - Cutting Patterns	The plan preparer modified the shape of this timber stand to meet your goals of creating or maintaining wildlife habitat.
Motorized Mech Equip	Prepare your site by plowing, disking, raking, chopping, scalping, trenching, or use another recommended method.
Mech Trt w/Hand Tools	Prepare your site by pulling, cutting or girdling competing vegetation with chain saws, hand saws, weed whips, brush saws, etc.
Prescribed Fire	Effective and safe use of prescribed fire requires appropriate equipment and training.
Chemical Treatment	Select the right herbicide and apply all chemical treatments according to the label instructions.

Silvicultural Systems

OLD PT CODE - DO NOT USE: Natural Regen: Type will perpetuate itself or regenerate naturally.	NATURAL REGENERATION OF TIMBER TYPE.Manage the stand through its rotation (the period between initial regeneration and the stand's final cutting) as a single aged forest. Periodic thinning of the stand is sometimes appropriate to improve quality and vigor. Regeneration cutting will remove the old stand to provide the necessary open conditions and sunlight to regenerate the stand naturally.
Natural even-aged regeneration of Timber Type with future thinning	NATURAL EVEN-AGED REGENERATION OF TIMBER TYPE WITH FUTURE THINNING.Manage the stand through its rotation (the period between initial regeneration and the stand's final cutting) as a single aged forest. Periodically thin the stand 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 regenerate the stand naturally.
Natural even-aged regeneration of Timber Type without future thinning	NATURAL EVEN-AGED REGENERATION OF TIMBER TYPE WITHOUT FUTURE THINNING.Manage the stand 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 regenerate the stand naturally.
Natural uneven-aged regeneration of Timber Type	NATURAL UNEVEN-AGED REGENERATION OF TIMBER TYPE.Manage the stand 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.
Natural Conversion to BALSAM FIR (natural or previously planted)	NATURAL CONVERSION.This stand will convert to balsam fir naturally after harvesting or completing your prescribed management treatments. Expect natural conversion 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. Periodically thin the stand 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 convert your stand naturally.
Natural Conversion to WHITE PINE (natural or previously planted)	NATURAL CONVERSION.This stand will convert to white pine naturally after harvesting or completing your prescribed management treatments. Expect natural conversion 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. Periodically thin the stand 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 convert your stand naturally.
Natural Conversion to RED PINE (natural or previously planted)	NATURAL CONVERSION.This stand will convert to red pine naturally after harvesting or completing your prescribed management treatments. Expect natural conversion 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. Periodically thin the stand 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 convert your stand naturally.


Silvicultural Systems

Natural Conversion to JACK PINE (natural or previously planted)	NATURAL CONVERSION.This stand will convert to jack pine naturally after harvesting or completing your prescribed management treatments. Expect natural conversion 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. Periodically thin the stand 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 convert your stand naturally.
Natural Conversion to NORTHERN HARDWOODS	NATURAL CONVERSION.This stand will convert to northern hardwood naturally after harvesting or completing your prescribed management treatments. Expect natural conversion 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. Periodically thin the stand 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 convert your stand naturally.
Natural Conversion to RED MAPLE	NATURAL CONVERSION.This stand will convert to red maple naturally after harvesting or completing your prescribed management treatments. Expect natural conversion 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. Periodically thin the stand 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 convert your stand naturally.
Natural Conversion to ASPEN	NATURAL CONVERSION.This stand will convert to aspen naturally after harvesting or completing your prescribed management treatments. Expect natural conversion 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. Periodically thin the stand 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 convert your stand naturally.
Natural Conversion to CENTRAL HARDWOODS	NATURAL CONVERSION.This stand will convert to central hardwoods naturally after harvesting or completing your prescribed management treatments. Expect natural conversion 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. Periodically thin the stand 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 convert your stand naturally.
Natural Conversion to WHITE BIRCH	NATURAL CONVERSION.This stand will convert to white birch naturally after harvesting or completing your prescribed management treatments. Expect natural conversion 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. Periodically thin the stand 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 convert your stand naturally.
Natural Conversion to OAK	NATURAL CONVERSION.This stand will convert to oak naturally after harvesting or completing your prescribed management treatments. Expect natural conversion 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. Periodically thin the stand 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 convert your stand naturally.
Natural Conversion to OTHER FOREST OR NON-FOREST SPECIES	NATURAL CONVERSION.This stand will convert to [OTHER FOREST OR NON-FOREST SPECIES] naturally after harvesting or completing your prescribed management treatments. Expect natural conversion because these species are already present or will be able to seed in and become established once the proper seedbed, light and crown canopy conditions exist. Your plan writer will prescribe future sound forestry management practices to meet your management goals.
Designated as a non-forest management zone	NO SILVICULTURAL SYSTEM APPLICABLE.This stand has been designated as non-productive. If you choose to passively manage this stand, it will be subject to natural processes like forest succession, wildlife and insect activity, tree aging and decay, windstorms, fire, etc. If you choose to actively manage this stand, in the future a new silvicultural system and management practices must be prescribed.
Artificial Regeneration: Type must be regenerated by seeding, planting, site preparation,	<p>FORCED REGENERATION OF TIMBER TYPE.Manage and regenerate the tree species in your forest 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>Your management plan prescribes the best method to regenerate new trees. Forced maintenance of your timber type may take time or extra expense. The success of your practice will take diligence and monitoring on your part.</p>



Silvicultural Systems

Forced Conversion to SPRUCE OR FIR after treatment	FORCED CONVERSION .Force a conversion of this stand to spruce or fir after harvesting or completing your prescribed management treatments. Natural conversion is not expected because these tree species are not present as younger trees. Some action on your part, such as planting trees or developing the proper seedbed, light and crown conditions for self-seeding, is required in order for these tree species to become established. Periodically thin the stand 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
Forced Conversion to WHITE PINE after treatment	FORCED CONVERSION .Force a conversion of this stand to white pine after harvesting or completing your prescribed management treatments. Natural conversion is not expected because this tree species is not present as younger trees. Some action on your part, such as planting trees or developing the proper seedbed, light and crown conditions for self-seeding, is required in order for this tree species to become established. Periodically thin the stand throughout the life of the stand to improve quality and vigor. Cutting will remove the old stand to provide the necessary open conditions and sunlight to allow regeneration practices to occur.
Forced Conversion to RED PINE after treatment	FORCED CONVERSION .Force a conversion of this stand to red pine after harvesting or completing your prescribed management treatments. Natural conversion is not expected because this tree species is not present as younger trees. Some action on your part, such as planting trees or developing the proper seedbed, light and crown conditions for self-seeding, is required in order for this tree species to become established.. Periodically thin the stand throughout the life of the stand to improve quality and vigor. Cutting will remove the old stand to provide the necessary open conditions and sunlight to allow regeneration practices to occur.
Forced Conversion to JACK PINE after treatment	FORCED CONVERSION .Force a conversion of this stand to jack pine after harvesting or completing your prescribed management treatments. Natural conversion is not expected because this tree species is not present as younger trees. Some action on your part, such as planting trees or developing the proper seedbed, light and crown conditions for self-seeding, is required in order for this tree species to become established. Periodically thin the stand throughout the life of the stand to improve quality and vigor. Cutting will remove the old stand to provide the necessary open conditions and sunlight to allow regeneration practices to occur.
Forced Conversion to NORTHERN HARDWOODS after treatment	FORCED CONVERSION .Force a conversion of this stand to northern hardwoods after harvesting or completing your prescribed management treatments. Natural conversion is not expected because these tree species are not present as younger trees. Some action on your part, such as planting trees or developing the proper seedbed, light and crown conditions for self-seeding, is required in order for these tree species to become established. Periodically thin the stand throughout the life of the stand to improve quality and vigor. Cutting will remove the old stand to provide the necessary open conditions and sunlight to allow regeneration practices to occur.
Forced Conversion to OAK after treatment	FORCED CONVERSION .Force a conversion of this stand to oak after harvesting or completing your prescribed management treatments. Natural conversion is not expected because these tree species are not present as younger trees. Some action on your part, such as planting trees or developing the proper seedbed, light and crown conditions for self-seeding, is required in order for these tree species to become established. Periodically thin the stand throughout the life of the stand to improve quality and vigor. Cutting will remove the old stand to provide the necessary open conditions and sunlight to allow regeneration practices to occur.
Forced Conversion to OTHER FOREST OR NON-FOREST SPECIES after treatment	FORCED CONVERSION .Force a conversion of this stand to [OTHER FOREST OR NON-FOREST SPECIES] after harvesting or completing your prescribed management treatments. Natural conversion is not expected because these species are not present. Some action on your part, such as planting trees or developing the proper seedbed, light and crown conditions for self-seeding, is required in order for these species to become established. Periodically thin the stand throughout the life of the stand to improve quality and vigor. Cutting will remove the old stand to provide the necessary open conditions and sunlight to allow regeneration practices to occur.

Soil Type

Clay (may include silty or sandy soils)	This stand has a clay soil. Clay soils are 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 an abundance of moisture and nutrients to sustain excellent growth for many tree species, but they drain slowly and wetness can be a limitation. Excessive moisture may limit equipment operations and make the site unsuitable for some tree species. Take care to prevent compaction and rutting when using equipment on these soils.
Clay Loam	This stand has a clay loam soil. Clay loam soils are 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 they drain slowly and wetness can be a limitation. Excessive moisture may limit equipment operations, and make the site unsuitable for some tree species. Take care to prevent compaction and rutting when using equipment on these soils.

**Soil Type**

Loam (may include silt loam or silt)	This stand has a loam soil. Loam soils are 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. Take care to prevent compaction and rutting when using equipment on these soils.
Loamy Sand	This stand has a loamy sand soil. Loamy sand soils are 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.
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. The extent of decomposition of plant parts prevents identification of the original vegetation. Muck soils are wet, so organic matter decomposes slowly and nutrients may not always be available for tree growth. Trees that grow on muck soils are adapted to wet conditions and are typically slow growing. Take care to prevent compaction and rutting when using equipment on these soils. In general, conduct management activities only when the ground is well frozen. These soils may be unsuitable for whole-tree harvesting and the harvesting of fine woody material because of their potential for nutrient depletion.
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. The partial decomposition allows identification of many plant parts in the soil. 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. Take care to prevent compaction and rutting when using equipment on these soils. In general, conduct management activities only when the ground is well frozen. These soils may be unsuitable for whole-tree harvesting and the harvesting of fine woody material because of their potential for nutrient depletion.
Poorly Drained Mineral	This stand 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.
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.
Sand Mantled Clay (use with Lake Superior Red Clay Plain)	This stand has soil of the Lake Superior Red Clay Plain that stretches across the southern shore of Lake Superior and extends inland from 8 to 20 miles. Heavy clay soils with alternating layers of sand characterize the Lake Superior Red Clay Plain. It occurs on level to gently sloping topography and steep sided stream valleys. Steep slopes and stream banks comprised of such soils are prone to failure with the potential to slough into the water during spring run-off and in periods of heavy rains.
Sandy Loam	This stand has a sandy loam soil. Sandy loam soils are 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.

Stand Age Structure

Even-Aged	These trees make up an even aged stand that originated about [INSERT ORIGIN YEAR]. Tree ages in even-aged stands may vary slightly, but the trees began growing in relatively the same period.
Two-Aged	These trees make up a two-aged stand with two distinct age classes. The oldest age class of trees originated about [INSERT ORIGIN YEAR]. Management practices must take into account that some trees will become mature earlier than other trees.
Uneven-Aged	These trees make up an uneven-aged stand with trees of three or more distinct age classes, ranging from young trees (seedlings and saplings) through trees that are older (pulpwood and sawlogs).

Stand Productivity

PRODUCTIVE 80% - Productive and meets minimum stocking	
PRODUCTIVE 80% - Productive with identified risk	This stand has forest regeneration or health concerns with foreseeable repercussions on productivity. The identified risk(s) described in the stand conditions cannot be the cause of a withdrawal without tax and fee.



Stand Productivity

NON-PRODUCTIVE 20% - Not capable of growing 20 ft ³ /acre/year	This area does not grow at the minimum rate of 20 cubic feet of timber per acre per year. [MFL AND POST-1979 FCL ONLY]Under the [INSERT PLAN_TYPE] Program, you can enter areas like this under the non-productive category. This area, as well as other non-productive areas, cannot exceed 20% of any enrolled parcel.[MFL AND POST-1979 FCL ONLY] If you harvest timber products from this area, you must file a cutting notice and report.
NON-PRODUCTIVE 20% - Does not meet minimum stocking requirements	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. [MFL AND POST-1979 FCL ONLY]Under the [INSERT PLAN_TYPE] Program, you can enter areas like this under the non-productive category. This area, as well as other non-productive areas, cannot exceed 20% of the total enrolled acreage.[MFL AND POST-1979 FCL ONLY]
NON-PRODUCTIVE 20% - Landowner chooses no management because of aesthetic reasons	You have chosen to passively manage this area of land because of aesthetic reasons. [MFL AND POST-1979 FCL ONLY]Under the [INSERT PLAN_TYPE] Program, you can enter areas like this as being unsuitable to produce timber products. This area, as well as other non-productive areas, cannot exceed 20% of the total enrolled acreage.[MFL AND POST-1979 FCL ONLY] If you harvest timber products from this area, you must file a cutting notice and report.
NON-PRODUCTIVE 20% - Landowner chooses no management to promote old growth stand conditions	You have chosen to passively manage this area of land to promote old growth stand conditions. [MFL AND POST-1979 FCL ONLY]Under the [INSERT PLAN_TYPE] Program, you can enter areas like this as being unsuitable to produce timber products. This area, as well as other non-productive areas, cannot exceed 20% of the total enrolled acreage.[MFL AND POST-1979 FCL ONLY] If you harvest timber products from this area, you must file a cutting notice and report.
NON-PRODUCTIVE 20% - Landowner chooses no management due to difficult or no access	You have chosen to passively manage this area of land because access to the land is difficult. [MFL AND POST-1979 FCL ONLY]Under the [INSERT PLAN_TYPE] Program, you can enter areas like this as being unsuitable to produce timber products. This area, as well as other non-productive areas, cannot exceed 20% of the total enrolled acreage.[MFL AND POST-1979 FCL ONLY] If you harvest timber products from this area, you must file a cutting notice and report.
NON-PRODUCTIVE 20% - Harvesting not recommended due to high risk of soil erosion	This stand is unsuitable for timber harvest. Though trees may grow here, forest management activities are not recommended in this stand due to its susceptibility to severe erosion. Some soils are especially vulnerable to sloughing or erosion. On unstable, steep slopes, tree removal may allow more rain to reach the forest floor, saturate fragile soil and contribute to sloughing or erosion. [MFL AND POST-1979 FCL ONLY]Under the [INSERT PLAN_TYPE] Program, you can enter areas like this as being unsuitable to produce timber products. This area, as well as other non-productive areas, cannot exceed 20% of the total enrolled acreage.[MFL AND POST-1979 FCL ONLY] If you harvest timber products from this area, you must file a cutting notice and report.
NON-PRODUCTIVE 20% - Landowner chooses to meet other resource management goals	You have chosen to designate this stand as non-productive to achieve resource management goals that are incompatible with the production of forest products. [MFL AND POST-1979 FCL ONLY]Under the [INSERT PLAN_TYPE] Program, you can enter areas like this as being non-productive. This area, as well as other non-productive areas, cannot exceed 20% of the total enrolled acreage.[MFL AND POST-1979 FCL ONLY] If you harvest timber products from this area, you must file a cutting notice and report.

Tree Species

Ash	Ash
Ash, Black	Black Ash
Ash, Green	Green Ash
Ash, White	White Ash
Aspen	Aspen
Aspen, Big-tooth	Big-tooth Aspen
Aspen, Quaking	Quaking Aspen
Balm of Gilead	Balm of Gilead
Balsam Fir	Balsam Fir
Basswood	Basswood
Beech	Beech
Birch, River	River Birch
Birch, White	White Birch
Birch, Yellow	Yellow Birch
Box Elder	Box Elder
Butternut	Butternut



Tree Species

Cedar, Red	Red Cedar
Cedar, White	White Cedar
Cherry, Black	Black Cherry
Cherry, Choke	Cherry Choke
Cherry, Pin	Cherry Pin
Cottonwood, Eastern	Cottonwood Eastern
Elm	Elm
Elm, American	American Elm
Elm, Chinese	Chinese Elm
Elm, Rock	Rock Elm
Elm, Slippery	Slippery Elm
Hackberry	Hackberry
Hawthorne	Hawthorne
Hemlock	Hemlock
Hickory, Bitternut	Bitternut Hickory
Hickory, Shagbark	Shagbark Hickory
Ironwood	Ironwood
Kentucky Coffee Tree	Kentucky Coffee Tree
Larch	Larch
Locust, Black	Black Locust
Locust, Honey	Honey Locust
Maple, Norway	Norway Maple
Maple, Other	Other Maple
Maple, Red	Red Maple
Maple, Silver	Silver Maple
Maple, Sugar	Sugar Maple
Mixed Conifer	Mixed Conifer
Mixed Hardwoods	Mixed Hardwoods
Mixed Species - All	Mixed Species - All
Mountain Ash	Mountain Ash
Mulberry	Mulberry
Oak, Black	Black Oak
Oak, Bur	Bur Oak
Oak, Northern Pin	Northern Pin Oak
Oak, Other	Other Oak
Oak, Red	Red Oak
Oak, Southern Pin	Oak Southern Pin
Oak, Swamp White	Swamp White Oak
Oak, White	White Oak
Pine, Austrian	Austrian Pine
Pine, Jack	Jack Pine
Pine, Red	Red Pine
Pine, Scots	Scots Pine



Tree Species	
Pine, White	White Pine
Poplar, Yellow	Poplar Yellow
Spruce	Spruce
Spruce, Black	Black Spruce
Spruce, Norway	Norway Spruce
Spruce, White	White Spruce
Sycamore	Sycamore
Tamarack	Tamarack
Walnut, Black	Walnut Black
Willow (includes Black)	Willow (includes Black)