

04-363-1999

MANAGED FOREST LANDS STEWARDSHIP FORESTRY PLAN

Landowner(s) as Shown on Deed:

BAYFIELD REGIONAL CONSERVANCY INC

Name and Address of Contact Person:

BAYFIELD REGIONAL CONSERVANCY INC, ATTN: MEGHAN DENNISON

PO BOX 410
BAYFIELD, WI 54814-0410

Entry Period: 50 years

Starting January 1, 1999 **Ending** December 31, 2048

Municipality(s): Town of Lincoln (Bayfield County)

Total Acres: 396.000

Attached map(s) 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 forestlands 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. Landowners who enroll in the MFL program pay a reduced property tax (acreage share tax) while growing trees for harvest and pay a yield tax as partial payment of their deferred property taxes. Landowners who close lands to public access pay an additional closed acreage fee. The Wisconsin Department of Natural Resources (WDNR) adjusts acreage share taxes and closed acreage fees every five years.

"Sound forestry practices" includes timber cutting, transporting, pruning, planting, and other activities recommended or approved by the WDNR for the effective propagation and improvement of the various timber types common to Wisconsin. It includes 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 WDNR deems incompatible with the practice of forestry.

Management Plan

Your management plan identifies important program requirements and management practices prescribed for your property. The plan writer determines management practices based on stand conditions of your timber and site capability of your land. The plan writer prescribes a completion year for each mandatory practice. WDNR enters that year into their computer system and will remind you of mandatory practices one year prior to the completion date. The plan writer also recommends approved practices (non-mandatory), which you may complete at your discretion.

Your management plan is just one component of Wisconsin's strategy to promote, support and monitor sustainable forestry practices on privately owned lands. Other resources are available to provide you with the most current information available on natural resources management. You can access those resources on the WDNR public website using the addresses referenced in this plan. You are encouraged to consult this information regularly.

Contact your local WDNR Forester for information about:

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

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Management Plan Amendment

Your WDNR forester will monitor your management plan throughout the MFL entry period to address concerns that are newly present or newly identified since the effective date of your plan. Amendment might include changes in tree species, tree stocking, damage from weather (wind, ice, snow), insects and disease, forest fire, flooding, land management goals, new management information (silvicultural science), invasive species, fire management, riparian management zones, or presence of endangered, threatened or high conservation value species or communities.

Landowner Goals

Your management plan blends your goals with site capabilities and MFL program requirements to guide your land management. You identified the following as your goals:

- Preserve, protect and enhance; scenic beauty, surface and ground water quality, habitats for fish and wildlife, a wide range of recreation, the Marengo River and other stream corridors, ecologically sensitive areas & habitats, public access, sustainable timber production
- Restore/convert aspen forest to a diverse hardwood/conifer mix
- Emphasize silent sport activities, prohibit motorized vehicle use
- Manage forest land for present and future generations
- Promote the prevalence of native tree species expected to be resilient to climate change
- Practice best management practices to protect all resources

Mandatory Practices

Mandatory practices must be completed or in progress by the end of the year listed below. You are encouraged to work with a cooperating forester to establish and administer timber sales. Use the [Forestry Assistance Locator](#) to find a cooperating forester; go to <http://dnr.wi.gov> and search 'Forest Landowner'.

Mandatory Practices Summary

YEAR	STAND(S)	ACRES	TIMBER TYPE	PRACTICE
2015	1	37	Aspen	COPPICE REGENERATION HARVEST
2015	4	61	Northern Hardwoods	CONVERSION, EVEN-AGE TO UNEVEN-AGED
2015	5	4	Red Pine	THINNING
2030	4	61	Northern Hardwoods	CONVERSION, EVEN-AGE TO UNEVEN-AGED
2030	5	4	Red Pine	THINNING
2030	8	14	Northern Hardwoods	CONVERSION, EVEN-AGE TO UNEVEN-AGED
2030	11	6	Balsam Fir	OVERSTORY REMOVAL HARVEST
2045	3	116	Aspen	COPPICE REGENERATION HARVEST
2045	4	61	Northern Hardwoods	CONVERSION, EVEN-AGE TO UNEVEN-AGED
2045	5	4	Red Pine	THINNING
2045	8	14	Northern Hardwoods	CONVERSION, EVEN-AGE TO UNEVEN-AGED
2048	2	71	Aspen	COPPICE REGENERATION HARVEST
2048	9	8	Swamp Hardwoods	CONVERSION, EVEN-AGE TO UNEVEN-AGED

Cutting Notice

At least 30 days prior to cutting or harvesting timber, you must file a **Cutting Notice and Report of Wood Products from Forest Crop and Managed Forest Lands** (Form 2450-032) with your local WDNR forester. The forester must approve the cutting prescription before cutting may proceed. The cutting prescriptions must be within the guidelines of the Department of Natural Resources [Silviculture Handbook](#) and the [Forest Management Guidelines](#). To read these publications go to <http://dnr.wi.gov> and search 'Forest Management'.

Additionally, you must file a separate county cutting notice with the county clerk prior to any harvest. Property taxes must be current prior to receiving approval to cut timber.

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Cutting Report

You must file a **Cutting Notice and Report of Wood Products from Forest Crop and Managed Forest Lands** (Form 2450-032) within 30 days of completing your timber harvest. WDNR uses this report to generate an invoice for yield tax based on the amount of timber products you harvested. You pay the WDNR and the payment is sent to your local municipality, which shares the payment with your county on an 80%-20% split.

Approved (Non-Mandatory) Practices

There are many optional management practices to enhance the growth rate and species composition of your forest; improve wildlife habitat and recreational activities; increase carbon sequestration; reduce fire hazards on your property; to improve access; and to help you meet other goals. Many of these practices may be eligible for cost-share assistance under the Wisconsin Forest Landowner Grant Program (WFLGP). Listed below are practices common to all timber stands:

- Seeding and mowing of trails and openings – Please contact your local WDNR Wildlife Biologist for information about seed mixtures
- Maintaining snags, den trees, and “wolf” trees – Retain trees during timber harvests and improvement cuts
- Controlling invasive species

Summarized in the table below are approved practices that are specific to individual timber stands. To learn more wildlife friendly ideas, go to <http://dnr.wi.gov> and search “Wildlife”.

Approved (non-mandatory) Practices Summary for Individual Stands

YEAR	STAND(S)	ACRES	PRIMARY TYPE	PRACTICE
2015	1	37	Aspen	SHELTERWOOD REGENERATION HARVEST (APPROVED OPTIONAL)
2016	1	37	Aspen	PLANT WITH DESIRABLE TREE SPECIES (POST COPPICE)
2016	1	37	Aspen	UNDERPLANT WHITE PINE SEEDLINGS (POST SHELTERWOOD)
2020	4	61	Northern Hardwoods	SURVIVAL CHECK
2035	1	37	Aspen	OVERSTORY REMOVAL HARVEST (APPROVED OPTIONAL)
2035	4	61	Northern Hardwoods	SURVIVAL CHECK
2035	8	14	Northern Hardwoods	SURVIVAL CHECK
2040	3	116	Aspen	SHELTERWOOD REGENERATION HARVEST (APPROVED OPTIONAL)
2041	3	116	Aspen	UNDERPLANT WHITE PINE SEEDLINGS (POST SHELTERWOOD)
2046	3	116	Aspen	PLANT WITH DESIRABLE TREE SPECIES (POST COPPICE)
2048	2	71	Aspen	SHELTERWOOD REGENERATION HARVEST (APPROVED OPTIONAL)
2048	4	61	Northern Hardwoods	SURVIVAL CHECK
2048	8	14	Northern Hardwoods	SURVIVAL CHECK
ANY	1	37	Aspen	FOREST STEWARDSHIP PLAN
ANY	1	37	Aspen	MECHANICAL RELEASE
ANY	1	37	Aspen	PROTECT SEEDLINGS FROM BROWSING
ANY	2	71	Aspen	FOREST STEWARDSHIP PLAN
ANY	3	116	Aspen	FOREST STEWARDSHIP PLAN
ANY	3	116	Aspen	MECHANICAL RELEASE
ANY	3	116	Aspen	PROTECT SEEDLINGS FROM BROWSING

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ANY	7	52	Aspen	CONTROL INVASIVE PLANT SPECIES
ANY	7	52	Aspen	SUPPLEMENTAL PLANTING TO FURTHER THE NATURAL CONVERSION

General Description of Areas Identified on Your MFL Property

Foresters combine areas of land with similar vegetative and non-vegetative characteristics for management purposes and call these areas "stands". The plan describes these stands and you can view the stands on the MFL map(s). Listed below are the descriptions of forest and non-forest areas on your MFL property.

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.

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.

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.

Balsam fir grows in a wide range of soil conditions but will grow best on moist loams.

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.

Alder Swamp

Alder Swamps are wet and contain more than 50% alder. Alder swamps usually occur in peat and muck soils.

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.

Northern hardwood forests grow best on deep, well-drained, silt loam soils. Northern hardwoods do not grow well on excessively dry or wet soil.

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.

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.

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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.

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.

Resource Protection and Management

Special records and inventories identify important natural, historical or archeological resources on or near your property. The plan writer designed your management practices to protect these resources from disturbance.

You can go to the WDNR website to find information used to evaluate stand conditions and determine management practices for your property. Go to <http://wi.dnr.gov> and search using the keywords shown.

- To learn about Ecological Landscapes of Wisconsin, search for 'Landscapes'.
- To learn about Wildlife Management, Habitat and Natural Communities, search for 'Wildlife' and 'Biodiversity'.
- To see the Wisconsin Wildlife Action Plan, and from there Explore Species Profiles, search for 'ER' or 'Wildlife'.

Your lands lie within a landscape known as North Central Forest. You can find an overview of the landscape, species of greatest conservation need, management opportunities and much more. Go to: <http://dnr.wi.gov> and search Landscapes.

Endangered, Threatened and Special Concern Species and Plant Communities

Natural Heritage Inventory (NHI) searches determine if your plan may affect endangered, threatened, or special concern animals, plants or plant communities. To learn about rare plants, animals and natural plant communities in Wisconsin visit <http://dnr.wi.gov> and search for 'NHI'.

The Natural Heritage Inventory (NHI) review lists the following resources on or in the area surrounding your property and suitable habitat for them is found on your property:

- 1 State Listed Mammal(s)
- 1 State Listed Plant(s)
- 1 State Listed Turtle(s)

When implementing management practices, mitigation might be required, such as:

- Best management practices that protect water quality and habitat for rare or aquatic species
- Harvest limits or restrictions to avoid impacts to nesting birds or NHI Working List species
- Surveys for rare species prior to timber sale establishment

Archeological and Historical Resources

State Historical Society records searches determine if your plan may affect archeological and historical sites. These sites require protection from disturbance, including road building, grading or gravelling. Contact your local WDNR Forester for additional information on archaeological and historical sites.

The Archeological Resources Inventory lists no archeological resources within this MFL property.

The Historical Resources Inventory lists no historical resources within this MFL property.

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Invasive Plant Species

Invasive plants may decrease the productivity, regeneration, wildlife habitat, and recreational value of your property. It is essential to identify and control small populations of invasive plants to minimize their spread. The individual stand descriptions list any invasive plant species identified on your property. For information on invasive plant control, consult Wisconsin Council on Forestry's *Forestry Best Management Practices for Invasive Species*; go to <http://dnr.wi.gov> and search 'Forest Management' to review all BMPs for invasive species.

Best Management Practices for Water Quality (BMPs)

To protect the water quality in Wisconsin's lakes, streams and wetlands and to prevent soil erosion, implement *Wisconsin's Forestry Best Management Practices for Water Quality* during all forest management activities, such as road building or timber harvesting. Specific BMPs will be included in detailed practice or harvest plans. You may require water regulations permits to cross wetlands and streams. Please go to <http://dnr.wi.gov> and search 'Forest Management' to review all BMPs for water quality.

Forest Health

Over time, your forest may suffer from insects, disease, windstorm, fire, flooding or drought, etc. These problems may alter your management prescriptions. If you are concerned about forest health, please contact your local WDNR Forester or go to <http://dnr.wi.gov> and search 'Forest health'.

STAND NUMBER 1		37 Acres
Primary Type:	Aspen Forest -- Poletimber	
Secondary Type:	Red Maple Forest -- Poletimber	

Stand Information

The most abundant tree species in this stand include Aspen (88%), Red Maple (9%) and Black Ash (2%).

These trees make up an even aged stand that originated about 1968. Tree ages in even-aged stands may vary slightly, but the trees began growing in relatively the same period.

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 sustainable over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.

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 Conditions, Special Features or Characteristics

This aspen stand is located along the woods road bordering the south side of the property. The aspen is mature to over mature and declining. Trees average about 10 inches in diameter. This stand could be harvested at any time. Other tree species present include red maple, balsam fir and black ash. The understory consists of various shrubs and herbaceous vegetation. There is also a small inclusion of a black spruce bog.

Convert stand, over the long term, to a forest cover type dominated by longer lived tree species. Trees species to consider include: white pine, red maple and red oak.

Management (Silvicultural) System

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Manage and regenerate this stand within generally accepted silvicultural guidelines for the primary type according to the following management system.

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.

Year Scheduled

Mandatory Practice

2015 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. 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.

For most Wisconsin forest types, adequate tree reproduction will be established in 3 to 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.

Year Scheduled

Approved (Non-Mandatory) Practice

2015 SHELTERWOOD REGENERATION HARVEST (APPROVED OPTIONAL). APPROVED OPTIONAL: Conduct the first harvest of a two-step shelterwood regeneration system. Cut enough of the aspen trees to leave approximately 50% crown closure. This overstory shade will help prevent damage to underplanted white pine seedlings from the white pine weevil (*Pissodes strobi* (Peck)). Leave uncut any white pine, red maple, red oak, or other conifer trees that are present. In addition, leave as many snag and den trees as possible.

2016 PLANT WITH DESIRABLE TREE SPECIES (POST COPPICE). Plant approximately 8-10 seedlings per acre (red oak, white pine and red maple), with an emphasis on white pine for an increased success rate. Individual tree seedlings may be planted systematically across the stand using 70 ft. x 70 ft. spacing or, alternatively, a group of 8-1

2016 UNDERPLANT WHITE PINE SEEDLINGS (POST SHELTERWOOD). Underplant white pine seedlings at an approximate spacing of 8 ft. x 8 ft. (600-800 per acre).

2035 OVERSTORY REMOVAL HARVEST (APPROVED OPTIONAL). APPROVED OPTIONAL HARVEST: Cut the remaining overstory trees from the original aspen stand when the planted white pine seedlings are 15-20 feet tall. Include timber sale contract provisions to protect the white pine.

ANY FOREST STEWARDSHIP PLAN. Please see the Forest Stewardship Plan and supporting documents under Documents > Plan Documents for detailed stand descriptions, objectives and practices.

ANY MECHANICAL RELEASE. Release seedlings of desirable species from competing vegetation as needed.

ANY PROTECT SEEDLINGS FROM BROWSING. Provide and maintain protection from deer herbivory. This could include spraying blood-based or other repellents, use of tree shelters, or fencing. It will be necessary to monitor and maintain the treatment based on monitoring results.

STAND NUMBER 2

71 Acres

Primary Type: Aspen Forest -- Seedlings and Saplings

Secondary Type:

Stand Information

The most abundant tree species in this stand is Aspen seedlings and/or saplings.

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These trees make up an even aged stand that originated about 2007. Tree ages in even-aged stands may vary slightly, but the trees began growing in relatively the same period.

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 sustainable over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.

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 Conditions, Special Features or Characteristics

This stand is comprised of aspen sprouts approximately 7- 10 years of age. The sprouts average about 1 -2" diameter and 15-20 feet tall. This stand should reach merchantable age by about the year 2050. This stand is located south of the river. The understory consists of grasses and Rubus spp.

Convert stand, over the long term, to a forest cover type characterized by longer lived tree species using methods adapted from DNR guidelines for converting aspen on the Lake Superior Clay Plain (see appendix A). Species to consider are white pine, red oak and red maple.

Management (Silvicultural) System

Manage and regenerate this stand within generally accepted silvicultural guidelines for the primary type according to the following management system.

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.

Year Scheduled

Mandatory Practice

2048 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. 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.

For most Wisconsin forest types, adequate tree reproduction will be established in 3 to 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.

Year Scheduled

Approved (Non-Mandatory) Practice

2048 SHELTERWOOD REGENERATION HARVEST (APPROVED OPTIONAL). APPROVED OPTIONAL: Conduct the first harvest of a two-step shelterwood regeneration system. Cut enough of the aspen trees to leave approximately 50% crown closure. This overstory shade will help prevent damage to underplanted white pine seedlings from the white pine weevil (*Pissodes strobi* (Peck)). Leave uncut any white pine, red maple, red oak, or other conifer trees that are present. In addition, leave as many snag and den trees as possible.

ANY FOREST STEWARDSHIP PLAN. Please see the Forest Stewardship Plan and supporting documents under Documents > Plan Documents for detailed stand descriptions, objectives and practices.

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STAND NUMBER 3		116 Acres
Primary Type:	Aspen Forest -- Seedlings and Saplings	
Secondary Type:		

Stand Information

The most abundant tree species in this stand is Aspen seedlings and/or saplings.

These trees make up an even aged stand that originated about 2000. Tree ages in even-aged stands may vary slightly, but the trees began growing in relatively the same period.

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 sustainable over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.

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 Conditions, Special Features or Characteristics

This stand is comprised of aspen sprouts approximately 15 years of age. The sprouts average 2-3" diameter and 24-30 feet tall. This stand should reach merchantable age by about the year 2040. The majority of this stand is located north of the river. The understory consists of grasses and Rubus spp. There are a few remnant white pine scattered through the stand. There is also a small inclusion of a tamarack bog.

Convert stand, over the long term, to longer lived tree species using methods from DNR guidelines for converting aspen on the Lake Superior Clay Plain (see appendix A).

Management (Silvicultural) System

Manage and regenerate this stand within generally accepted silvicultural guidelines for the primary type according to the following management system.

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.

Year Scheduled

Mandatory Practice

2045

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. 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. 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.

For most Wisconsin forest types, adequate tree reproduction will be established in 3 to 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.

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Year Scheduled	Approved (Non-Mandatory) Practice
2040	SHELTERWOOD REGENERATION HARVEST (APPROVED OPTIONAL). APPROVED OPTIONAL: Conduct the first harvest of a two-step shelterwood regeneration system. Cut enough of the aspen trees to leave approximately 50% crown closure. This overstory shade will help prevent damage to underplanted white pine seedlings from the white pine weevil (<i>Pissodes strobi</i> (Peck)). Leave uncut any white pine, red maple, red oak, or other conifer trees that are present. In addition, leave as many snag and den trees as possible.
2041	UNDERPLANT WHITE PINE SEEDLINGS (POST SHELTERWOOD). Underplant white pine seedlings at an approximate spacing of 8 ft. x 8 ft. (600-800 per acre).
2046	PLANT WITH DESIRABLE TREE SPECIES (POST COPPICE). Plant approximately 8-10 seedlings per acre (red oak, white pine and red maple), with an emphasis on white pine for an increased success rate. Individual tree seedlings may be planted systematically across the stand using 70 ft. x 70 ft. spacing or, alternatively, a group of 8-1
ANY	FOREST STEWARDSHIP PLAN. Please see the Forest Stewardship Plan and supporting documents under Documents > Plan Documents for detailed stand descriptions, objectives and practices.
ANY	MECHANICAL RELEASE. Release seedlings of desirable species from competing vegetation as needed.
ANY	PROTECT SEEDLINGS FROM BROWSING. Provide and maintain protection from deer herbivory. This could include spraying blood-based or other repellents, use of tree shelters, or fencing. It will be necessary to monitor and maintain the treatment based on monitoring results.

STAND NUMBER 4

61 Acres

Primary Type: Northern Hardwood Forest -- Small Sawtimber
Secondary Type: Northern Hardwood Forest -- Poletimber

Stand Information

The most abundant tree species in this stand include Sugar Maple (68%) and Basswood (31%).

These trees make up an even aged stand that originated about 1914. Tree ages in even-aged stands may vary slightly, but the trees began growing in relatively the same period.

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 sustainable over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.

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 Conditions, Special Features or Characteristics

This is a fair to good quality, small saw log sized, stand of northern hardwood. The dominant tree species is sugar maple but red maple, basswood, white ash, black ash and some red oak and black cherry are also present. This stand has been thinned in the past and is transitioning from an even-aged structure to an uneven-aged stand structure. There is a heavy ground cover of Pennsylvania sedge which may inhibit natural regeneration. Some natural regeneration of white pine has been observed. Several ephemeral ponds can be found within the stand. There is also a small inclusion of red pine.

Management (Silvicultural) System

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Manage and regenerate this stand within generally accepted silvicultural guidelines for the primary type according to the following management system.

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.

Year Scheduled

Mandatory Practice

2015 **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.

For most Wisconsin forest types, adequate tree regeneration within the canopy gaps will be established in 3 to 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.

2030 **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.

For most Wisconsin forest types, adequate tree regeneration within the canopy gaps will be established in 3 to 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.

2045 **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.

For most Wisconsin forest types, adequate tree regeneration within the canopy gaps will be established in 3 to 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.

Year Scheduled

Approved (Non-Mandatory) Practice

2020 **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.

2035 **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.

2048 **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.

04-363-1999

STAND NUMBER 5		4 Acres
Primary Type:	Red Pine Forest -- Poletimber	
Secondary Type:	Red Pine Forest -- Small Sawtimber	

Stand Information

The most abundant tree species in this stand is Red Pine (100%).

These trees make up an even aged stand that originated about 1979. Tree ages in even-aged stands may vary slightly, but the trees began growing in relatively the same period.

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 sustainable over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.

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 Conditions, Special Features or Characteristics

This is red pine plantation planted around 1979. The pine has been row thinned at least once in the past. Trees average about 7 inches in diameter. The red pine patches could be thinned again in about the year 2014 and approximately every 15 years thereafter. This stand is located on the very east edge of the property.

Management (Silvicultural) System

Manage and regenerate this stand within generally accepted silvicultural guidelines for the primary type according to the following management system.

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.

Year Scheduled	Mandatory Practice
2015	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.
2030	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.
2045	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.

04-363-1999

STAND NUMBER 6		19 Acres
Primary Type:	Alder Swamp	
Secondary Type:	Small Lake or Pond	

Stand Information

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 sustainable over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.

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 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.

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, 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. If you harvest timber products from this area, you must file a cutting notice and report and pay yield tax on the harvested volume.

Stand Conditions, Special Features or Characteristics

A small seepage lake and associated wetlands are located in the northeast corner of the property. The lake is completely surrounded by lowland brush (tag alder and willow).

Management (Silvicultural) System

Manage and regenerate this stand within generally accepted silvicultural guidelines for the primary type according to the following management system.

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.

Year Scheduled

Mandatory Practice

NONE. No Mandatory Practices expected on this stand for the remainder of the plan.

04-363-1999

STAND NUMBER 7		52 Acres
Primary Type:	Aspen Forest -- Poletimber	
Secondary Type:	Balsam Fir Forest -- Poletimber	

Stand Information

The most abundant tree species in this stand include Aspen (83%) and Balsam Fir (17%).

These trees make up an even aged stand that originated about 1968. Tree ages in even-aged stands may vary slightly, but the trees began growing in relatively the same period.

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 sustainable over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.

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.

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. Under the Managed Forest Law 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. If you harvest timber products from this area, you must file a cutting notice and report and pay yield tax on the harvested volume.

Your plan writer found the following invasive plant species during the forest inventory process:

- Bush Honeysuckle Spp.

Stand Conditions, Special Features or Characteristics

The river bottom corridor is characterized by a highly diverse mixture of tree species. Understory vegetation includes grouping of plants indicates that this is a very rich and fertile site. This stand is naturally converting to a mixed northern hardwood and coniferous forest cover type. This area has not been harvested due to steep slopes making for difficult access. Topography and the soil moisture regimes are highly variable in the river bottoms.

Management (Silvicultural) System

Manage and regenerate this stand within generally accepted silvicultural guidelines for the primary type according to the following management system.

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.

04-363-1999

Year Scheduled

Mandatory Practice

NONE. No Mandatory Practices expected on this stand for the remainder of the plan.

Year Scheduled

Approved (Non-Mandatory) Practice

ANY CONTROL INVASIVE PLANT SPECIES. Asian Honeysuckle has been observed in this stand. Control measures, including pulling, cutting and targeted pesticide use may be an effective way to manage this invasive species.

ANY SUPPLEMENTAL PLANTING TO FURTHER THE NATURAL CONVERSION. The south side of river with its north aspect will tend to be relatively cooler and moister. Tree species to plant include white pine, red oak and possibly hemlock. On the north bank of the river with its south aspect conditions will tend to be warmer and dryer. White pine and red oak may grow better on the north bank.

Plant the above recommended tree species in the less well stocked portions of this stand where the understory consists primarily of upland brush.

STAND NUMBER 8

14 Acres

Primary Type: Northern Hardwood Forest -- Poletimber

Secondary Type:

Stand Information

The most abundant tree species in this stand include Sugar Maple (65%), Basswood (20%) and Red Maple (15%).

These trees make up an even aged stand that originated about 1934. Tree ages in even-aged stands may vary slightly, but the trees began growing in relatively the same period.

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 sustainable over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.

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 Conditions, Special Features or Characteristics

This is an even aged stand of northern hardwood pole timber. The dominant tree species is sugar maple but red maple and basswood are also present. This stand is located on a steep slope. When harvesting this stand consider keeping equipment from operating on the slope. Trees may need to be felled by hand and winched to the top of the slope.

Management (Silvicultural) System

Manage and regenerate this stand within generally accepted silvicultural guidelines for the primary type according to the following management system.

04-363-1999

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.

Year Scheduled

Mandatory Practice

2030 **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.

For most Wisconsin forest types, adequate tree regeneration within the canopy gaps will be established in 3 to 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.

2045 **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.

For most Wisconsin forest types, adequate tree regeneration within the canopy gaps will be established in 3 to 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.

Year Scheduled

Approved (Non-Mandatory) Practice

2035 **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.

2048 **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.

STAND NUMBER 9

8 Acres

Primary Type: **Swamp Hardwood Forest -- Small Sawtimber**

Secondary Type: **Swamp Hardwood Forest -- Poletimber**

Stand Information

The most abundant tree species in this stand include Ash (8%), Silver Maple (23%) and Black Cherry (69%).

These trees make up an even aged stand that originated about 1963. Tree ages in even-aged stands may vary slightly, but the trees began growing in relatively the same period.

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 sustainable over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.

04-363-1999

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 Conditions, Special Features or Characteristics

This stand is located in the flood plain of the Marengo River and is periodically flooded during high water events. The tree species composition is unusual for a flood plain with a predominance of black cherry. Other tree species present include: black ash, green ash, silver maple, balsam fir, white birch, aspen and elm. This is a fairly high quality site for ash and there is an abundance of ash regeneration in the understory.

Management (Silvicultural) System

Manage and regenerate this stand within generally accepted silvicultural guidelines for the primary type according to the following management system.

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.

Year Scheduled

Mandatory Practice

2048

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.

For most Wisconsin forest types, adequate tree regeneration within the canopy gaps will be established in 3 to 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.

STAND NUMBER 10

8 Acres

Primary Type:

Water

Secondary Type:

Stand Information

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 sustainable over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.

04-363-1999

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 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.

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, 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. If you harvest timber products from this area, you must file a cutting notice and report and pay yield tax on the harvested volume.

Stand Conditions, Special Features or Characteristics

The Marengo River is a navigable stream which supports a cold water trout fishery. Wisconsin has designated this stretch of the Marengo River as an Outstanding Resource Water (ORW). Rivers designated as ORW are surface waters which provide outstanding recreational opportunities, support valuable fisheries and wildlife habitat, have good water quality, and are not significantly impacted by human activities. These designations are intended to meet federal Clean Water Act obligations requiring Wisconsin to adopt an "antidegradation" policy that is designed to prevent lowering of water quality.

Management (Silvicultural) System

Manage and regenerate this stand within generally accepted silvicultural guidelines for the primary type according to the following management system.

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.

Year Scheduled

Mandatory Practice

NONE. No Mandatory Practices expected on this stand for the remainder of the plan.

STAND NUMBER 11

6 Acres

Primary Type: Balsam Fir Forest -- Seedlings and Saplings
Secondary Type: Aspen Forest -- Poletimber

Stand Information

The most abundant tree species in this stand is Balsam Fir seedlings and/or saplings. In addition, scattered overstory trees are present, including Aspen (83%).

These trees make up an even aged stand that originated about 1994. Tree ages in even-aged stands may vary slightly, but the trees began growing in relatively the same period.

04-363-1999

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 sustainable over time. It also affects other forest attributes, such as wildlife habitat and biodiversity.

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 Conditions, Special Features or Characteristics

This stand is located in a flat area of the river bottoms and at least 100 feet from the river's ordinary high water mark. It is characterized by mature aspen over topping balsam fir, spruce and some hemlock regeneration. The regeneration is transitioning from the sapling size class to the pole timber size class. The stand is naturally converting from an aspen cover type to a conifer cover type.

Management (Silvicultural) System

Manage and regenerate this stand within generally accepted silvicultural guidelines for the primary type according to the following management system.

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.

Year Scheduled

Mandatory Practice

2030

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.

ADDITIONAL INFORMATION FOR MANAGEMENT OF YOUR PROPERTY

Cost Share on Forest Management or Tree Planting

Lands enrolled in the MFL program must be maintained at 400 trees per acre for plantations and 800 trees per acre for natural stands.

Programs are available to help share the cost of implementing certain forest management or tree planting projects. You can find more information about [financial help and cost share programs](#); go to <http://dnr.wi.gov> and search 'Forest Landowner'.

You can purchase seedlings through the state nursery program. To learn more about tree availability or to create your own tree planting plan visit: <http://dnr.wi.gov> and search 'Tree planting'.

04-363-1999

Timber Harvest Contracts

It is very important that you and your logging contractor have a written and signed contract to guide the harvesting process before starting any harvesting. For more information on writing contracts for timber sales please visit <http://dnr.wi.gov> and search 'Forest Landowner'.

Non-Timber Forest Products

You may harvest 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. Wisconsin statutes may regulate some of these non-timber products, such as ginseng. Others might be threatened or endangered species, and protected by law. Follow all applicable laws when harvesting non-timber products. You must take care 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 forestland please contact your local WDNR Forester using the Forestry Assistance Locator; go to <http://dnr.wi.gov> and search 'Forest Landowner'.

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.

Third party certification 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 WDNR-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. When needed, using pesticides not prohibited by FSC. You can find a list of FSC prohibited pesticides on the MFL Certification page; go to <http://dnr.wi.gov> and search 'Forest Certification'. Landowners should self-report pesticide use on their lands using the online form on the same webpage.
 - c. Not planting Genetically Modified Organisms (GMO) 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
 - h. Resolving disputes with easement holders, lien holders and holders of management rights in an expeditious manner.

This certification is voluntary. You chose to have your land certified under the MFL Certified Group. 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.

For more information about forest certification, please contact your DNR Forester or visit <http://dnr.wi.gov> and search for 'Forest Certification'

04-363-1999

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 learn how to mitigate those dangers.

You can take action to reduce the exposure of your home or property to fire. Use fire resistant building materials, incorporate fuel breaks into the landscape, and know the local burning restrictions.

For more information on fire danger and burning permit restrictions, go to <http://dnr.wi.gov> and search 'Fire'. For more information on making your home and property more survivable in the event of a wildfire, go to <http://dnr.wi.gov> and search 'Firewise'.

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 affecting your participation in forest carbon markets. For information, visit the US Forest Service website:
<http://www.na.fs.fed.us/ecosystemservices/carbon/>.

Lands Enrolled in the MFL Program

In conjunction with your MFL maps and air photos, this land information helps you to identify your lands enrolled in the MFL program.

Town/Range/Section	Legal Description	Tax Parcel ID No.	Certified Survey Map Information	Enrolled Acreage	
				Open to Public Access	Closed to Public Access
County: Bayfield		Municipality: Town of Lincoln			
45N-05W-21	SWNE			40.000	0.000
45N-05W-21	NESW			40.000	0.000
45N-05W-21	NWSW			40.000	0.000
45N-05W-21	SWSW			40.000	0.000
45N-05W-21	SESW			40.000	0.000
45N-05W-21	NWSE			40.000	0.000
45N-05W-21	SWSE			40.000	0.000
45N-05W-21	SESE			40.000	0.000
45N-05W-22	SWSW, EX ROW			38.000	0.000
45N-05W-22	SESW, EX ROW			38.000	0.000
Total Acreage:				396.000	0.000

04-363-1999

Forester Contact Information

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.

Certified Plan Writer Contact Information

SCHULTZ, MATTHEW
PINE CURVE CONSULTING FORESTRY
P O BOX 126
BUTTERNUT, WI 54514
(715) 492-4130
PINECURVEFORESTRY@LIVE.COM

DNR Forester Contact Information

PIIKKILA, TOM
DEPARTMENT OF NATURAL RESOURCES
PO BOX 709
MELLEN, WI 54546
(715) 274-4020
THOMAS.PIIKKILA@WISCONSIN.GOV

Primary Owner

BAYFIELD REGIONAL CONSERVANCY INC, ATTN: MEGHAN DENNISON
PO BOX 410
BAYFIELD, WI 54814-0410

Entry Year: 1999 **Length:** 50 yrs. **Exp Date:** 12/31/2048

MFL #: 04-363-1999 -- Bayfield Co. -- Lincoln (T)

Other Owners**A. Stand Number**

	1				2				3			
1 Productivity	PRODUCTIVE 80% - Productive and meets minimum stocking				PRODUCTIVE 80% - Productive and meets minimum stocking				PRODUCTIVE 80% - Productive and meets minimum stocking			
2 Stand Prefix												
3 Exam Date	01/01/2013				01/01/2013				01/01/2013			
4 Age Structure	Even-Aged				Even-Aged				Even-Aged			
5 Timber Type - Primary	Aspen	5-11	4		Aspen	0-5	3		Aspen	0-5	3	
Timber Type - Secondary	Red Maple	5-11	1									
Timber Type - Understory												
6 Habitat Type												
7 Acres	37				71				116			
8 Year of Origin	1968				2007				2000			
9 Total Height	65				10				20			
10 Mean Stand Diameter	10				1				3			
11 Site Index & Species	70 - Aspen				70 - Aspen				70 - Aspen			
12 Total Basal Area	140				3				3			
13 Total Volume-Cds/Acre	32				0				0			
Total Volume-BF/Acre	0				0				0			
14 Tree Species	Species	BA	Cds	BF	Species	BA	Cds	BF	Species	BA	Cds	BF
1st Major Tree Species	Aspen	123	29	0	Aspen	3	0	0	Aspen	3	0	0
2nd Major Tree Species	Maple, Red	13	2	0								
3rd Major Tree Species	Ash, Black	3	1	0								
4th Major Tree Species												
15 Invasive Level	Not Evaluated (Off Season)				Not Evaluated (Off Season)				Not Evaluated (Off Season)			
1st Inv Species/Density												
2nd Inv Species/Density												
3rd Inv Species/Density												
4th Inv Species/Density												
16 Soil Type	Sandy Loam				Sandy Loam				Sandy Loam			
17 Management Objective	Natural even-aged regeneration of Timber Type without future thinning				Natural even-aged regeneration of Timber Type without future thinning				Natural even-aged regeneration of Timber Type without future thinning			
18 Last Changed	8/22/2014 8:12:53 PM				8/28/2014 7:15:03 PM				8/28/2014 7:10:23 PM			

B. Mandatory Practice

Practice	Yr	Practice	Yr	Practice	Yr
Coppice	2015	Coppice	2048	Coppice	2045

C. Non-Mandatory Practice

Practice	Yr	Practice	Yr	Practice	Yr
Other-Shelterwood Regeneration Harv	2015	Other-Shelterwood Regeneration Harv	2048	Other-Shelterwood Regeneration Harv	2040
Other-Plant with desirable tree spe	2016	Other-Forest Stewardship Plan	ANY	Other-Underplant white pine seedlin	2041
Other-Underplant white pine seedlin	2016			Other-Plant with desirable tree spe	2046
Other-Overstory removal harvest (AP	2035			Other-Forest Stewardship Plan	ANY
Other-Forest Stewardship Plan	ANY			Other-Mechanical release	ANY
Other-Mechanical release	ANY			Other-Protect seedlings from browsi	ANY
Other-Protect seedlings from browsi	ANY				

Stand Conditions, Special Features or Characteristics

This aspen stand is located along the woods road bordering the south side of the property. The aspen is mature to over mature and declining. Trees average about 10 inches in diameter. This stand could be harvested at any time. Other tree species present include red maple, balsam fir and black ash. The understory consists of various shrubs and herbaceous vegetation. There is also a small inclusion of a black spruce bog.

Convert stand, over the long term, to a forest cover type dominated by longer lived tree species. Trees species to consider include: white pine, red maple and red oak.

This stand is comprised of aspen sprouts approximately 7- 10 years of age. The sprouts average about 1-2" diameter and 15-20 feet tall. This stand should reach merchantable age by about the year 2050. This stand is located south of the river. The understory consists of grasses and Rubus spp.

Convert stand, over the long term, to a forest cover type characterized by longer lived tree species using methods adapted from DNR guidelines for converting aspen on the Lake Superior Clay Plain (see appendix A). Species to consider are white pine, red oak and red maple.

This stand is comprised of aspen sprouts approximately 15 years of age. The sprouts average 2-3" diameter and 24-30 feet tall. This stand should reach merchantable age by about the year 2040. The majority of this stand is located north of the river. The understory consists of grasses and Rubus spp. There are a few remnant white pine scattered through the stand. There is also a small inclusion of a tamarack bog.

Convert stand, over the long term, to longer lived tree species using methods from DNR guideline: for converting aspen on the Lake Superior Clay Plain (see appendix A).

Primary Owner

BAYFIELD REGIONAL CONSERVANCY INC, ATTN: MEGHAN DENNISON
PO BOX 410
BAYFIELD, WI 54814-0410

Entry Year: 1999 **Length:** 50 yrs. **Exp Date:** 12/31/2048

MFL #: 04-363-1999 -- Bayfield Co. -- Lincoln (T)

Other Owners**A. Stand Number**

	4				5				X 6			
1 Productivity	PRODUCTIVE 80% - Productive and meets minimum stocking				PRODUCTIVE 80% - Productive and meets minimum stocking				NON-PRODUCTIVE 20% - Not capable of growing 20 ft3/acre/year X=Non-Prod (<20 ft3/ac/yr)			
2 Stand Prefix												
3 Exam Date	01/01/2013				01/01/2013				01/01/2013			
4 Age Structure	Even-Aged				Even-Aged							
5 Timber Type - Primary	Northern Hardwoods	11-15	2		Red Pine	5-9	4		Lowland Brush - Alder			
Timber Type - Secondary	Northern Hardwoods	5-11	2		Red Pine	9-15	1		Minor Lake			
Timber Type - Understory	Northern Hardwoods	0-5	3									
6 Habitat Type												
7 Acres	61				4				19			
8 Year of Origin	1914				1979							
9 Total Height					65							
10 Mean Stand Diameter	10				7							
11 Site Index & Species					70 - Pine, Red							
12 Total Basal Area	118				180							
13 Total Volume-Cds/Acre	17				12							
Total Volume-BF/Acre	3200				3500							
14 Tree Species	Species	BA	Cds	BF	Species	BA	Cds	BF	Species	BA	Cds	BF
1st Major Tree Species	Maple, Sugar	80	16	800	Pine, Red	180	12	3,500				
2nd Major Tree Species	Basswood	37	1	2,400								
3rd Major Tree Species												
4th Major Tree Species												
15 Invasive Level	Not Evaluated (Off Season)				Not Evaluated (Off Season)				Not Evaluated (Off Season)			
1st Inv Species/Density												
2nd Inv Species/Density												
3rd Inv Species/Density												
4th Inv Species/Density												
16 Soil Type	Sandy Loam				Sandy Loam				Muck			
17 Management Objective	Natural uneven-aged regeneration of Timber Type				Forced Conversion to WHITE PINE after treatment				Designated as a non-forest management zone			
18 Last Changed	8/28/2014 7:12:31 PM				8/28/2014 7:24:26 PM				8/28/2014 7:29:50 PM			

B. Mandatory Practice

Practice	Yr	Practice	Yr
Conversion (even to uneven)	2015	Thinning	2015
Conversion (even to uneven)	2030	Thinning	2030
Conversion (even to uneven)	2045	Thinning	2045

C. Non-Mandatory Practice

Practice	Yr
Survival Check	2020
Survival Check	2035
Survival Check	2048

Stand Conditions, Special Features or Characteristics

This is a fair to good quality, small saw log sized, stand of northern hardwood. The dominant tree species is sugar maple but red maple, basswood, white ash, black ash and some red oak and black cherry are also present. This stand has been thinned in the past and is transitioning from an even-aged structure to an uneven-aged stand structure. There is a heavy ground cover of Pennsylvania sedge which may inhibit natural regeneration. Some natural regeneration of white pine has been observed. Several ephemeral ponds can be found within the stand. There is also a small inclusion of red pine.

This is red pine plantation planted around 1979. The pine has been row thinned at least once in the past. Trees average about 7 inches in diameter. The red pine patches could be thinned again in about the year 2014 and approximately every 15 years thereafter. This stand is located on the very east edge of the property.

A small seepage lake and associated wetlands are located in the northeast corner of the property. The lake is completely surrounded by lowland brush (tag alder and willow).

Primary Owner

BAYFIELD REGIONAL CONSERVANCY INC, ATTN: MEGHAN DENNISON
PO BOX 410
BAYFIELD, WI 54814-0410

Entry Year: 1999 **Length:** 50 yrs. **Exp Date:** 12/31/2048

MFL #: 04-363-1999 -- Bayfield Co. -- Lincoln (T)

Other Owners**A. Stand Number**

Stand Number	Z 7				8				9				
1	Productivity	NON-PRODUCTIVE 20% - Harvesting not recommended due to high risk of soil erosion				PRODUCTIVE 80% - Productive and meets minimum stocking				PRODUCTIVE 80% - Productive and meets minimum stocking			
2	Stand Prefix	Z=No Management Zone											
3	Exam Date	01/01/2013				01/01/2013				01/01/2013			
4	Age Structure	Even-Aged				Even-Aged				Even-Aged			
5	Timber Type - Primary	Aspen	5-11	2	Northern Hardwoods	5-11	3	Swamp Hardwoods	11-15	1			
	Timber Type - Secondary	Balsam Fir	5-9	1				Swamp Hardwoods	5-11	2			
	Timber Type - Understory	Balsam Fir	0-5	1				Swamp Hardwoods	0-5	3			
6	Habitat Type												
7	Acres	52				14				8			
8	Year of Origin	1968				1934				1963			
9	Total Height	65								56			
10	Mean Stand Diameter	10				8				9			
11	Site Index & Species	70 - Aspen								56 - Ash, Black			
12	Total Basal Area	60				100				65			
13	Total Volume-Cds/Acre	10				10				6			
	Total Volume-BF/Acre	0				1000				900			
14	Tree Species	Species	BA	Cds	BF	Species	BA	Cds	BF	Species	BA	Cds	BF
	1st Major Tree Species	Aspen	50	9	0	Maple, Sugar	65	7	700	Ash	5	1	900
	2nd Major Tree Species	Balsam Fir	10	1	0	Basswood	20	2	300	Maple, Silver	15	1	0
	3rd Major Tree Species					Maple, Red	15	1	0	Cherry, Black	45	4	0
	4th Major Tree Species												
15	Invasive Level	Present				Not Evaluated (Off Season)				Not Evaluated (Off Season)			
	1st Inv Species/Density	Bush Honeysuckle Spp.											
	2nd Inv Species/Density	<5%											
	3rd Inv Species/Density												
	4th Inv Species/Density												
16	Soil Type	Sandy Loam				Sandy Loam				Sandy Loam			
17	Management Objective	Designated as a non-forest management zone				Natural uneven-aged regeneration of Timber Type				Natural uneven-aged regeneration of Timber Type			
18	Last Changed	8/28/2014 7:38:03 PM				8/28/2014 8:20:39 PM				8/28/2014 8:29:18 PM			
Mandatory Practice		Practice			Yr	Practice			Yr	Practice			Yr
		None Expected				Conversion (even to uneven)			2030	Conversion (even to uneven)			2048
						Conversion (even to uneven)			2045				
Non-Mandatory Practice		Practice			Yr	Practice			Yr				
		Other-Control invasive plant specie			ANY	Survival Check			2035				
		Other-Supplemental planting to furt			ANY	Survival Check			2048				

Stand Conditions, Special Features or Characteristics

The river bottom corridor is characterized by a highly diverse mixture of tree species. Understory vegetation includes grouping of plants indicates that this is a very rich and fertile site. This stand is naturally converting to a mixed northern hardwood and coniferous forest cover type. This area has not been harvested due to steep slopes making for difficult access. Topography and the soil moisture regimes are highly variable in the river bottoms.

This is an even aged stand of northern hardwood pole timber. The dominant tree species is sugar maple but red maple and basswood are also present. This stand is located on a steep slope. When harvesting this stand consider keeping equipment from operating on the slope. Trees may need to be felled by hand and winched to the top of the slope.

This stand is located in the flood plain of the Marengo River and is periodically flooded during high water events. The tree species composition is unusual for a flood plain with a predominance of black cherry. Other tree species present include: black ash, green ash, silver maple, balsam fir, white birch, aspen and elm. This is a fairly high quality site for ash and there is an abundance of ash regeneration in the understory.

Primary Owner

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PO BOX 410
BAYFIELD, WI 54814-0410

Entry Year: 1999 **Length:** 50 yrs. **Exp Date:** 12/31/2048

MFL #: 04-363-1999 -- Bayfield Co. -- Lincoln (T)

Other Owners**A. Stand Number**

Stand Number		X 10				11			
1	Productivity	NON-PRODUCTIVE 20% - Not capable of growing 20 ft3/acre/year				PRODUCTIVE 80% - Productive and meets minimum stocking			
2	Stand Prefix	X=Non-Prod (<20 ft3/ac/yr)							
3	Exam Date	01/01/2013				01/01/2013			
4	Age Structure					Even-Aged			
5	Timber Type - Primary	Water				Balsam Fir	0-5	3	
	Timber Type - Secondary					Aspen	5-11	1	
	Timber Type - Understory								
6	Habitat Type								
7	Acres	8				6			
8	Year of Origin					1994			
9	Total Height					24			
10	Mean Stand Diameter					2			
11	Site Index & Species					45 - Balsam Fir			
12	Total Basal Area					30			
13	Total Volume-Cds/Acre					5			
	Total Volume-BF/Acre					0			
14	Tree Species	Species	BA	Cds	BF	Species	BA	Cds	BF
	1st Major Tree Species					Balsam Fir	5	0	0
	2nd Major Tree Species					Aspen	25	5	0
	3rd Major Tree Species								
	4th Major Tree Species								
15	Invasive Level	Not Evaluated (Off Season)				Not Evaluated (Off Season)			
	1st Inv Species/Density								
	2nd Inv Species/Density								
	3rd Inv Species/Density								
	4th Inv Species/Density								
16	Soil Type	Muck				Sandy Loam			
17	Management Objective	Designated as a non-forest management zone				Natural Conversion to BALSAM FIR (natural or previously planted)			
18	Last Changed	8/28/2014 8:36:49 PM				8/28/2014 8:43:12 PM			
Mandatory Practice		Practice		Yr		Practice		Yr	
		None Expected				Overstory Removal		2030	

C. Non-Mandatory Practice**Stand Conditions, Special Features or Characteristics**

The Marengo River is a navigable stream which supports a cold water trout fishery. Wisconsin has designated this stretch of the Marengo River as an Outstanding Resource Water (ORW). Rivers designated as ORW are surface waters which provide outstanding recreational opportunities, support valuable fisheries and wildlife habitat, have good water quality, and are not significantly impacted by human activities. These designations are intended to meet federal Clean Water Act obligations requiring Wisconsin to adopt an "antidegradation" policy that is designed to prevent lowering of water quality.

This stand is located in a flat area of the river bottoms and at least 100 feet from the river's ordinary high water mark. It is characterized by mature aspen over topping balsam fir, spruce and some hemlock regeneration. The regeneration is transitioning from the sapling size class to the pole timber size class. The stand is naturally converting from an aspen cover type to a conifer cover type.

ORDER NUMBERCo. Code/Seq. No./Yr. of Entry
04-363-1999State of Wisconsin Dept. of Natural Resources
MANAGED FOREST LAW MAP
Form 2450-133 R (7/07)**MADISON OFFICE USE ONLY**

Acreage Entered

Owner's Name
Bayfield Regional Conservancy☐ Multiple OwnersMunicipality Name
LincolnCounty
Bayfield

Township # 45

Range # 5

☐ East ☒ West

Section 21

Open Acres 320.00

Closed Acres 0.00

 Open Area  Closed Area

Prepared By: M. Schultz

Date 8/29/14

Legend

1 inch = 660 feet



----- Woods Roads

 Stands MFL Open to Public

1 A (05-11)4 / MR (05-11)1

2 A (0-5)3

3 A (0-5)3

4 NH (11-15)2 / NH (05-11)2 / NH (00-05)3

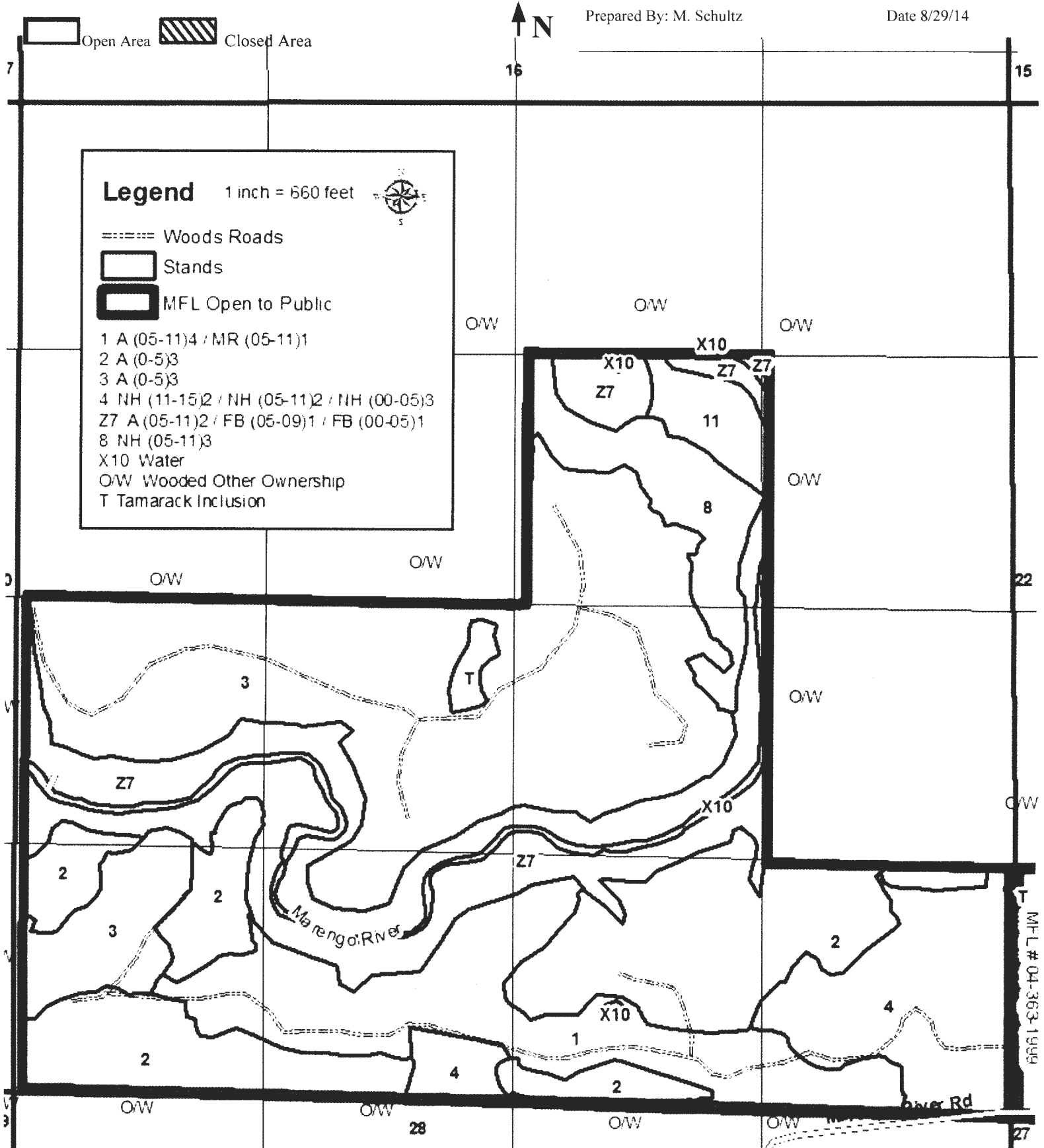
Z7 A (05-11)2 / FB (05-09)1 / FB (00-05)1

8 NH (05-11)3

X10 Water

O/W Wooded Other Ownership

T Tamarack Inclusion



MFL # 04-363-1999

River Rd

