

Wisconsin Northern State Forests

Land Management Classification Review, Recommendations and Considerations



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Approved Master Plan Land Management Classification Maps can be found at
<http://dnr.wi.gov/topic/Lands/MasterPlanning/MPComplete.html>

Introduction and Purpose of the Master Plan Land Classification Assessment

The purpose of this assessment is to provide an overview of current Northern State Forest master plan land management classifications and provide recommendations and considerations for adjusting land management classifications to comply with State Statute that directs the department to designate 75% of managed State Forest lands, excluding Southern State Forests and Governor Knowles State Forest, in the Forest Production land management classification. Northern State Forests, excluding Governor Knowles State Forest, represent approximately 450,000 acres of owned lands in which the department has management authority, mostly located in the northern half of the state.

This review and master plan variance is directed and guided by 2015 ACT 358 and State statute, 28.04(3) further defines the objectives and provisions for the Forest Production land management classification.

Currently Northern State Forests, excluding Governor Knowles, have 66% of owned and managed lands designated in the Forest Production land management classification. This process identifies the location of additional areas to reclassify to Forest Production, representing approximately 40,000 acres.

2015 ACT 358 (1) STATE FOREST PLAN VARIANCE. Before March 1, 2017, the department of natural resources shall propose a variance to the master plans of all state forests except for the southern state forests, as defined in section 27.016 (1) (c) of the statutes, and except for Governor Knowles State Forest so that 75 percent of all the land in those state forests combined is classified as a forest production area as provided in section 28.04 (3) (am) of the statutes.

Land Management Classification Review Process

The first step includes assessing current conditions of the forest resource by property, including current master plan land classifications, review of past and updated inventories and assessments; including land and forest cover types, management history, and updated biotic inventories. This information was used to identify areas best suited for Forest Production areas on each property. Additional areas were identified and considered but not selected for reclassification. These areas will remain as replacement options if recommended areas are not selected to move forward.

The next step will seek and use input received from the public on the recommended areas as well as other areas considered but no recommended.

Lastly, using public input and additional analysis, refine and identify specific land management classification changes for each property, and develop a final draft proposal in the form of a master plan variance considering all State Forests combined to meet the 75% forest production directive.

Master Plan- Land Management Classification System

Property master planning is a process that is used to determine how a property will be managed, used and developed. The development of master plans is governed by ch. NR 44 Wis. Adm. Code. NR44 defines master planning and sets forth its purposes, specifies the planning process and the content of a master plan. This rule also establishes a uniform land management classification system to be applied in the master plan. The classification system has several functions or purposes; to help define and map an array of broad management objectives on a property; to serve as a communication tool regarding those broad objectives or purposes, to provide standards for various plan elements, and to help assure a general level of uniformity or consistency in plans and property management statewide across different types of properties. There are seven (7) land management classifications identified in NR44.

- 1.) Forest Production Management
- 2.) Habitat Management
- 3.) Native Community Management
- 4.) Special Management
- 5.) Recreation Management
- 6.) Scenic Management

7.) Wild Resource Management

In the master planning process, every acre in which the department has management authority for must be assigned a land management classification. An entire property may be assigned one or several land management classifications. Large, complex properties are most likely to have multiple land management classifications. Land management classifications may further be divided into one to many management areas. The areas would have the same land management classification; however, the specific management objectives or management prescriptions for the areas may vary depending on site conditions. The land management classification that is assigned should be the class which most accurately describes the primary management objective. While each classification highlights a primary objective, multiple management objectives and benefits may be realized within the management area.

For each management area long and short term objectives are identified as well as authorized management prescriptions.

Long-term Objectives: They can be considered to be like a “vision statement” for a management area. That is, they are a description of the ultimate desired future conditions planned for the area. Long-term objectives often will be looking 50 to 100 years or more into the future and are not attainable now or in the near term. While they may be quantified, they are only loosely time-bound.

Short-term Objectives: Short-term objectives describe immediate or intermediate stages or conditions that are being managed for in the process of reaching the ultimate long-term conditions, the long-term objectives. Often this is the situation when you are converting from one cover type to a different cover type, such as converting an aspen stand to northern hardwoods. Short-term objectives typically have a time line of 50 years or less.

Management Prescriptions

Management prescriptions describe the specific actions to be taken to accomplish the objectives. Generally, each objective should have one or more supporting prescriptions; although, there are exceptions where prescriptions are not necessary. The prescriptions should also disclose the management techniques, like clearcutting or herbicide application, that would be used, unless it is covered by a separate statement on “authorized management activities”.

Current Northern State Forest Land Management Classifications

Current is defined as NRB approved Master Plans. Includes only DNR fee title owned and managed lands

Table 1. Current Land Management Classification by Property (in acres)

Land Classification	Black	Brule	Coulee	Flambeau	Peshtigo	NHAL	Total
Forest Production Management Area	47,171	11,018	2,268	62,945	10,546	165,663	299,611
Habitat Management Area	9,279	2,172		3,953		5,247	20,651
Native Community Management Area	10,025	26,932	695	6,450	1,005	44,502	89,609
Recreation Management Area	2,404	1,126		117		5,746	9,393
Scenic Resources Management Area		5,158		16,078		956	22,192
Special Management Area		357				267	624
Wild Resources Management Area				926		9,470	10,396
Digitizing error		4	-1	1		1,380	1,385
Total	68,879	46,767	2,962	90,470	11,552	233,231	453,861

Table 2: Summary of Current Conditions and Statute directed percentages

Total Fee Ownership	453,861	acres
Current Forest Production Classification	299,611	acres
Current Forest Production Class	66%	percent

Summary of Proposed Changes

Approximately 40,000 additional acres are proposed to be classified to forest production to meet the 75% directive. No lands are proposed to be reclassified on the Peshtigo and Coulee as these are relatively small properties with limited opportunities. In addition, there are 10,200 acres identified that were considered but not recommended for re-classification. These areas can be considered as replacement lands for any recommended areas that are not included in the final variance.

Each area reclassified will be managed with the goals and objectives of the adjacent forest production area, unless specified otherwise.

The majority of the acres for reclassification are on the Brule and NHAL State Forest. These properties have the most dated approved master plans, 2002, and 2005 respectively. These plans were completed with some areas having outdated forest inventory data and determining land management areas and associated land classifications were more broadly defined in a conservative manner. As on the ground forest inventory was updated the ability to refine land management areas was more science based around forest type and forested stands. In some instances, forest production areas were reclassified to another more appropriate land management classification. A sizable amount of recently acquired lands on the Brule are proposed for reclassification. The original master plan classifications were determined with little actual on the ground data in term of forest cover type, age class, water resources etc. Once acquired, additional biotic inventory and forest cover information was gathered and management objectives could be better defined in this process.

Proposed Northern State Forest Land Management Classifications

Includes only DNR fee title owned and managed lands

Table 3. Proposed Land Management Classification by property (in acres)

Land Classification	Black	Brule	Coulee	Flambeau	Peshtigo	NHAL	Grand Total
Forest Production Management Area	49,604	25,255	2,268	68,252	10,546	183,066	338,455
Habitat Management Area	7,817	623					8,440
Native Community Management Area	9,054	15,246	695	6,444	1,005	36,682	69,126
Recreation Management Area	2,404	871		117		2,540	5,932
Scenic Resources Management Area		4,415		14,730		1,064	20,209
Special Management Area		357				369	726
Wild Resources Management Area				926		9,509	10,436
Total	68,879	46,767	2,962	90,470	11,552	233,231	453,860

Table 4: Summary of Proposed land Classifications

Total Fee Ownership	453,860	acres
Proposed Forest Production Classification	338,455	acres
Proposed Forest Production Classification	75%	percent

Individual State Forests

Black River State Forest - Forest and Land Classification Assessment

Currently the Black River State Forest is comprised of 68,944 acres. Of these acres 56,630 of these or 83% are forested, with the remaining 12,314 acres being non-forested. The vast majority of non-forested acreage consists of various wetland habitats with the remaining acres being campgrounds, developed recreational areas, and scattered grasslands.

The forested lands of the Black River are predominantly covered by pine and oak species. White pine comprises 29% of the total forested acreage. This percentage is expected to increase over time as the forest reverts to its late successional forest type. Jack pine is the second most common cover type accounting for 22% of the forested acres. Just a few decades ago Jack pine was the most common cover type but on better sites many of these acres are converting to white pine. Red pine comprises 11% of the forested acres with most of these being plantations that were planted between the 1930's to 1970's. Frequent disease problems in red pine stands makes it likely this percentage will decrease over time. Oak (15%) and scrub oak (5%) are the other common cover type and appear to be maintaining their acreage.

Forest reconnaissance (recon) is a technique used by foresters to gather specific information about the forest resource, including tree species and age, volume estimates, and acreages of various cover types. The information collected is the foundation for forest management and planning on the property. The Division of Forestry uses the commonly held industry practice of updating recon acreage on 5% of the property so that recon data is never older than 20 years of age. The chart below shows the current status of forested acres on the state forest.

Forest Type	Acres	Percent of Forested Acres
White Pine	16,528	29%
Jack Pine	12,190	22%
Oak	8,551	15%
Red Pine	6,147	11%
Scrub Oak	2,626	5%
Red Maple	2,601	5%
Bottomland Hardwoods	1,260	2%
Tamarack	1,024	1%
Black Spruce	410	2%

An active forest management program is in place on the Black River State Forest. Of the 56,630 forested acres 49,865 acres or 88% of the property is scheduled for forest management. The property has averaged 1,100 acres per year of timber sales since 2012. This number is expected to remain fairly consistent going forward. These timber sales have generated on average just over \$1,000,000 per year.

There are four master plan land classifications on the Black River State Forest: Forest Production Area, Native Community Management Area, Habitat Management Area, and Recreation Management Area. The allowable forestry-related activities differ in each of these areas. The Forest Production Area is the largest of the four, comprising 46,586 acres (68% of the total acres) with a management goal to establish and maintain a forest community of diverse forest types and age classes for the sustainable production of a variety of forest products, wildlife habitat, biological diversity, and to offer a range of opportunities for dispersed, low-impact recreation in an aesthetic forest setting. Management in the forest production area focuses on maximizing timber production, depending on site capability, while utilizing sound silvicultural practices.

The Native Community Management Area classification includes 9,979 acres (15% of the total acres), and are located on 12 separate areas throughout the property. The long-term management objectives in the Native Community Management Areas vary from sustaining relatively intact peatlands, protecting bottomland hardwood sites along the Black River, managing for older white pine stands including both upland white pine and the biologically diverse wet site white pine and red maple communities. About half of these acres are actively managed including the use of timber sales, while the other

50% these acres are passively managed. Passive sites are typically non-forested (peatlands), too wet for timber sale activity, or inaccessible due to slope.

The Habitat Management Area classification accounts for 9,276 acres, or 15% of the state forest. This is divided between the Dike 17 Wildlife area which is a mixture of man-made flowages, open grasslands, forested wetlands, and some upland forested areas. The primary focus of this area is wildlife management, but active timber management occurs in the 900 forested acres. The other habitat area is the Jack Pine Habitat Management area. The primary focus on these acres is to maintain Jack pine as the dominant cover type. In areas capable of supporting a fully stocked forest it is managed just as if it was a forest production area with the expressed goal of regenerating Jack pine. In some areas of this type, that are drier and have historically been unable to support a fully stocked stand, these acres are managed for Jack pine barrens, a globally imperiled ecosystem. Active forest management occurs on these acres as well.

The final land classification area is the Recreation Management areas, which account for 2,396 acres or 3% of the property. This includes all of the scattered campgrounds, which together account for a very small amount of acreage. Most of this acreage, 2,241, lies in the Overmeyer Hills area, which surrounds the 24 mile hike, bike, and ski trail system. Except in areas that are too steep for logging, active forest management occurs in all of these acres. Managing for aesthetics and an older forest condition influence silvicultural prescriptions in this area.

Black River State Forest Land Management Classification Recommendations and Considerations

The Jack pine habitat management area provides opportunities to convert acreage into forest production. Management in many of the stands is very consistent with forest production areas. Converted acreage would focus on stands that are capable of supporting a fully canopied forest. Acreage is approximately 1,500.

A second tract that is proposed to be converted to forest production is the Stanton Creek Pines native community management area. This area currently calls for active forest management throughout the tract, does not contain a state natural area, and had a long term goal of managing for old forest, and not the old growth classification. Approximate acres are 1,000.

Brule River State Forest - Forest and Land Classification Assessment

The most visibly active part of the land management program at the BRSF is certainly the timber sale program. Forested lands are monitored through a forest reconnaissance system that tracks forest stand conditions on a recurring basis. A large emphasis was placed on improving the accuracy of the forest stand data on the BRSF in the years following the 2002 master plan and all forested stands have been visited by forestry staff within the past 15 years. This data is very important as it is the information needed to make informed decisions as to the management of the forest. Current forest stand cover types and acreages are as follows:

Brule River State Forest – Forest Cover Types – March 2016

Cover Type		# of Stands	Acres
A	ASPEN	387	21,523
BW	WHITE BIRCH	22	773
C	WHITE CEDAR	17	913
FB	BALSAM FIR	28	1,470
FS	FIR SPRUCE-*OLD CODE, RECODE	20	779
MC	MISCELLANEOUS CONIFEROUS	2	7

MR	RED MAPLE	6	170
NH	NORTHERN HARDWOODS	12	368
O	OAK	31	1,567
OX	SCRUB OAK	39	1,585
PJ	JACK PINE	90	3,489
PR	RED PINE	164	6,404
PW	WHITE PINE	28	499
SB	BLACK SPRUCE	23	348
SC	SWAMP CONIFER-*OLD CODE, RECODE	7	182
SH	SWAMP HARDWOODS	80	1,785
SW	WHITE SPRUCE	17	395
T	TAMARACK	10	206
	Total:	983	42,463

The level of forest management has been steady or increasing on the Brule since the 2002 plan was put into place. Between the years 2002 and 2015, 7,998 acres have had timber harvest treatments completed on the Brule River State Forest, resulting in the harvest of an equivalent of 145,870 cords of wood for a stumpage value income of \$6,173,636 being brought into the forestry account.

The 2002 plan also called for a 600 acre annual harvest limit, which did not allow the forest to be managed according to the plan, particularly once the “New Addition” property was added to the forest acreage. A master plan amendment was completed in 2015 to eliminate the acreage cap artificially put in place by the 2002 plan, and made the annual allowable harvest level to be calculated using on the ground data within the WISFIRS system. This effectively increased the level of forest management that is allowed to occur and the annual allowable harvest will be calculated each year as data gets updated. Over the next fifteen years, under present management constraints, the allowable harvest is calculated to average about 1,150 acres of timber harvest per year. A portion of this increased level of harvest is due to the fact that we were building “backlog” sales each year, in other words, the 600 acre harvest limit in the master plan was not allowing the timber sales to occur that the data showed were needing to be completed, thereby creating a list of areas each year that needed harvest, but couldn’t be done due to the 600 acre constraint. The master plan amendment of 2015 fixed that issue, but it will take some years to reduce the acreage of backlog (stands that are past their harvest date) timber sales that are waiting to be completed. Before any management is completed, foresters “ground check” stands to make sure the data is accurate.

Other land management activities are reforestation activities such as site preparation for tree planting, seeding, or natural regeneration of forest stands. Site prep activities include mechanical means of site preparation such as disk trenching, fire plow furrowing, blade scarification, or anchor chain scarification. Herbicide spraying has also taken place to release young trees from competition for growing space from undesirable trees, shrubs, and grass competition. Herbicides have also been applied to stop the spread of exotic invasive shrubs, as well as completion of streamside trout habitat work.

Activities to maintain forest openings, as well as open grassland areas also take place. Forest openings are typically mowed on a periodic basis to prevent shrub and tree encroachment. Efforts were made to inspect these sites for opportunities to allow conifers such as white pine to spread across existing openings. These small grassland openings which have a white pine seed source nearby have not been maintained as openings and allowed to regenerate to white pine.

Prescribed fire activities are used to maintain larger grassland openings. An open grassland corridor has been maintained along the Hwy 13 area to connect open landscapes to the east and west of the primarily wooded Brule River Valley. This allows bird species a route of travel to connect the open habitats. Prescribed fire has been applied to these sites on a periodic basis to prevent brush and trees from encroaching on the open grasslands.

The 2002 master plan split the state forest into 13 distinct management areas, each with distinct management goals and classifications. The 2002 plan also lays out some long term management goals for each management unit, along with activities which are specifically allowed to take place within the management unit. Land management classifications are placed upon areas to give a sense of what the management direction is going, not to dictate whether or not there will be active management on the landscape. The 2002 master plan has land classification acreage as follows:

As shown above, there was a high percentage of Native Community management area designated on the forest. Due to recent legislative actions, there will be changes to the land management classifications on the BRSF in the next master plan. In 2015, State Statute was passed that specified that the Northern State Forests as a whole must designate a minimum of 75% of the land base was classified as forest production areas. The chart above shows that the BRSF has a high percentage of Native Community management areas, and a relatively low percentage of Forest Production areas. The BRSF, in concert with other state forests, will work to adjust land classifications across the program to meet the minimum requirement of 75% Forest Production areas. The 75% goal does not state that each individual forest must meet the requirement, but as a whole, the program does need to meet that. Other properties already have a much higher percentage of forest production areas, so it is likely that there will be a significant shift of acreage on the Brule River State Forest from both native community management and habitat management to the forest production designation.

It is important to note that even though an area is designated as a forest production area, or a native community management area, it has no bearing on the level of forest management activity one may see on the landscape. Active management has been and will continue to be done on native community management as well as forest production areas to meet the overall long term management goals of the area.

Extensive surveys and inventories of native communities, plants, and animals have been conducted recently to update data as found in the Biotic Inventory completed to support the 2002 master plan. Findings in the recent inventories and surveys have been and will be utilized in the management decisions found in master plan documents as well as daily management actions on the property.

Brule River State Forest- Land Management Classification Recommendations and Considerations

Large areas of **Area 1, Lake Superior Clay Plain**, are very well suited to a Forest Production classification. This is particularly true with the area of the “New Addition”. Overall management goals within the area as a whole can still be to increase percentage of conifers within the stand, but these goals can be met with very active forest management techniques that will maximize the production of forest products from this landscape. There are certainly opportunities within the existing Native Community areas to remain in this designation, such as within individual drainages in Area 1 which already show good development into the forest cover type that is desired, but the areas can be better defined to designate specific sites as Native Community Management Areas, rather than an entire area.

The **grassland areas in Area 1** within the Hwy 13 corridor could be considered to be re-designated to the Habitat Management designation, which will better fit the long term management goals for this specific area.

The Miller Road habitat management area could be completely re-designated to be a forest production area with little change in management. Management goals within that area are to maintain all age classes of aspen forest cover type to maximize game populations. This management scheme fits very well within the forest production land classification while achieving goals as set forth within the habitat management designation.

Areas 6 and 7, which are recreation and special management areas, could be at least partially re-designated as forest production areas and absorbed into surrounding management areas, while maintaining recreational and administrative functional values. Existing recreational and administrative facilities will be continued to be located within these areas.

Area 10, Pine Forest and Barrens Native Community Management Area could be reconsidered as a forest production area. This area is managed as a pine barrens community, and is very actively managed within the larger scale landscape as part of a “rolling barrens” concept to maintain a percentage of younger age class of forest to provide wildlife habitat to those species that need that, while being part of a larger scale plan to maintain the historic pine barrens of the northwest sands region of northern Wisconsin. Opportunities are there to better define specific sites within the larger scale area as Native Community sites, such as the permanent open area that is the Motts Ravine State Natural Area.

Currently, an area of approximately 130 acres at Mott’s Ravine State Natural Area is managed as an early seral-stage barrens “core”. The 2003 Plan specifies that the barrens core should be 200-400 acres in size, in order to benefit those

wildlife species that require large acreages of open habitat (area-sensitive species). Specific opportunities to expand the current barrens core should be delineated as part of the master plan revision

The 2003 plan specifies in the Pine Forest and Barrens Management Area narrative that “special aesthetics guidelines along major roads will continue”. This prescription should be evaluated to determine whether it is still relevant and whether leaving aesthetic strips along major roads is working in contrast to the overall wildlife habitat goals, specifically in this management area.

Area 12- Willard Road Native Community Mgmt Area and Area 2, Sugar Camp Hill Native Community Mgmt Area. Both of these areas are similar in forest composition, and further definition of individual sites that meet Native Community Mgmt objectives can be done. Large portions of these units may be aligned with a forest production area designation while protecting and managing for values as outlined within the current master plan.

Lake Minnesuing Area – Area 13

This area is composed of some of the best northern hardwood stands found on the State Forest. Large eastern hemlock, some of the western most populations, are also found in this area. This management area has seen no harvest activities during the life of the 2002 Master Plan and natural disturbance events have been very minimal. With this lack of disturbance the species composing the northern hardwood stands are not regenerating. The two main species that can be found in the understory almost exclusively are balsam fir and ironwood. To maintain northern hardwood species such as hard maple, yellow birch, basswood, and red oak as well as eastern hemlock, management will need to be done. Single tree selection harvests as well as small patch clearcuts would be appropriate prescriptions to regenerate these species.

Flambeau River State Forest - Forest and Land Classification Assessment

The Flambeau River State Forest encompasses over 91,000 acres. After removing private in-holdings, open water, and right-of-ways, the total is approximately 88,000 acres, of which approximately 80,000 are forested. The forest (88,000 acres) has been divided into 21 land management areas, with forest production areas comprising approximately 70% of the area. Native community management areas, which include the majority of the passively managed acres, equate to 7% of the forest. About 4% of the forest is classified as habitat management area. Scenic resources management areas, of which there are two, take up the second greatest area of the forest at roughly 18%, as they border the Flambeau River and Upper Flambeau River. The remaining acreage, only about 1% of the forest, includes both a wild resources management area and a recreation management area.

The forest is mainly comprised of northern hardwood, aspen, swamp hardwood, lowland brush, and fir-spruce cover types. Although northern hardwood forest remains the most common forest cover type of the FRSF, the composition, structure, and patch sizes differ significantly from pre-settlement conditions. Forest management on the FRSF has focused on improving the yield and timber quality of northern hardwood saw-logs through selectively cutting and conversion to uneven-aged management. Some of the lowland forested acreage, especially the swamp hardwood cover type, is currently being actively managed for timber production. Several historical factors influenced the structure and composition of the FRSF and surrounding landscape; these include unregulated logging during the state's "cutover" period and subsequent land clearing and wildfires, as well as the more recent 1977 windstorm event that greatly affected approximately one third of the total FRSF land area. Currently, this forested landscape is heavily dominated by sapling to pole-sized trees. Old growth successional stages of all forest types are rare and larger blocks of older forest with mature forest structure are uncommon.

Figure 1 shows the general cover types on the Flambeau River State Forest. For inventory purposes, forest stands are classified by their dominant cover type. This means that forest stands listed as aspen have 50% or more in aspen trees. Most forest stands however contain a mix of tree species. For example, an "aspen" area probably includes a mixture of northern hardwoods, red maple, and white birch. Therefore, two forest stands with the same dominant cover type may not have the same overall tree composition. The Forested Coniferous Wetlands cover type includes Balsam Fir, Cedar, Black Spruce, and Tamarack. The Wetlands cover type includes tag alder and kegs. The non-forested uplands cover type includes upland brush and grasses.

Forest reconnaissance (recon) is a technique used by foresters to gather specific information about the forest resource, including tree species and age, volume estimates, and acreages of various cover types. The information collected is the foundation for forest management and planning on the property. The Division of Forestry uses the commonly held industry practice of updating recon acreage on 5% of the property so that recon data is never older than 20 years of age. The chart below shows the current status of forested acres on the state forest and the projected acres 50 years in the future.

Forest Type	Current Acres
Aspen	18,507
Balsam Fir	537
Black Spruce	4,408
Bottomland Hardwoods	147
Hemlock	2,743
Northern Hardwood	33,053
Oak	97
Red Maple	7,281
Red Pine	798
Swamp Hardwood	5,112
Tamarack	4,522
White Birch	422
White Cedar	1,155
White Pine	1,388
White Spruce	1,430

An active forest management program is in place on the Flambeau River State Forest. Over the past 6 years since the Master Plan was approved 15,215 acres of timber sales have been completed averaging 2,536 acres per year. The acres per year harvested are expected to drop slightly as we move forward and or backlog acres are addressed. Income received over the past 6 years has generated \$3,888,000.00.

Flambeau River State Forest - Land Management Classification Recommendations and Considerations

Habitat Management Area 17, Ruffed Grouse Habitat area provides an opportunity for converting acres to Forest Production. Management to this area is intensive aspen harvesting to provide high quality ruffed grouse habitat. Other associated species would be managed along with aspen, to the extent that they do not interfere with adequate aspen regeneration. The focus on wildlife management objectives and maintaining the existing aspen acreage within this unit fits well with forest production management. The total acreage for the Ruffed Grouse Habitat area is 3,954 acres.

Other areas that would provide opportunities for converting acres to Forest Production would come from the Flambeau River Scenic Area. These areas are correlated with roads within the Scenic Area. Areas being converted have a state, county, township, or state forest road transecting the Scenic Area. One area has a power line transecting the Scenic Area. The areas outside of these roads and the power line would be converted into adjacent Forest Production areas. The acreage of these areas is 1,500 acres.

Other areas considered but not recommended.

Areas considered but not recommended for conversion to FPA on the FRSF include portions of two Native Community Management Areas. The two Native Community Management Areas are the Hanson Lake Complex and the Swamp Lake Forest. These considered sites are actively managed using old forest-extended rotation management wherever possible, with special emphasis on safeguarding the area's wetland characteristics and water quality.

Northern Highland American Legion - Forest and Land Classification Assessment

The forested lands of the Northern Highland American Legion State Forest (NHAL) are predominantly covered by aspen, mixed hardwood species and pine species. The total State Forest covers 239,136 acres, of which forested areas cover 196,645 acres. Aspen dominated cover type currently comprises 38% (75,699 acres) of the total forested acreage while upland mixed hardwood forest comprise 24% (47,340 acres) and pine species (red pine, white pine, and jack pine) comprise another 22% (42,312 acres). The remaining forest acreage is covered by several upland and lowland cover type forest including; balsam fir, white spruce, hemlock and miscellaneous conifer species. Lowland forested areas are covered by wetland species including black spruce, tamarack, cedar, and bottomland hardwood and swamp conifers.

The vast majority of non-forested acreage (42,491 acres) consists of various wetland habitats with the remaining acres being campgrounds, developed recreational areas, and scattered grasslands.

Forest reconnaissance (recon) is a technique used by foresters to gather specific information about the forest resource, including tree species and age, volume estimates, and acreages of various cover types. The information collected is the foundation for forest management and planning on the property. The Division of Forestry uses the commonly held industry practice of updating recon acreage on 5% of the property so that recon data is never older than 20 years of age. The chart below shows the current status of forested acres on the NHAL state forest.

Forest Type	Acres	Percent of Forested Acres
Aspen	75,699	38%
Red Pine	23,225	12%
Red Oak, Scrub Oak	22,509	11%
Northern Hardwoods	17,523	9%
Black Spruce	17,310	9%
White Pine	13,293	7%
Jack Pine	5,794	3%
Hemlock/Hardwood	4,184	2%
White Birch	4,156	2%
White Cedar	3,692	2%
Tamarack	3,195	2%
Red Maple	3,152	2%
Swamp Hardwoods	1,318	1%
Balsam Fir, White Spruce, Misc. Conifers	1,595	<1%

An active forest management program has been sustainably managing forests on the NHAL State Forest since the 1940s. Of the current 196,645 forested acres 173,470 acres or 88% of the property is scheduled for forest management. The property has averaged 4,829 acres per year of established timber sales area since 2006. The current NHAL 15 year scheduled average harvest goals are 4,387 acres to manage each year.

There are seven master plan land classifications on the NHAL State Forest: Forest Production Area, Native Community Management Area, Habitat Management Area, Scenic Management area, Wild Resources Management Area, Special Management Areas and Recreation Management Area (Map 2. Existing Land Management Classifications). The allowable forestry-related activities differ in each of these areas. The Forest Production Area is the largest of the four, comprising 169,219 acres (71% of the total acres) with a management goal to establish and maintain a forest community of diverse forest types and age classes for the sustainable production of a variety of forest products, wildlife habitat, biological diversity, and to offer a range of opportunities for dispersed, low-impact recreation in an aesthetic forest setting. Management in the forest production area focuses on maximizing timber production, depending on site capability, while utilizing sound silvicultural practices.

The Native Community Management Area (NCMA) classification includes 48,183 acres (20% of the total acres), and is located on seven separate areas throughout the property. The long-term management objectives in the Native Community Management Areas are facilitated with primary objectives of representing, restoring and perpetuating native plant and

animal communities, whether upland, wetland or aquatic and other aspects of native biological diversity. Management is focused on the special qualities identified in the NHAL Master Plan for each of the 7 areas. Many of these acres are actively managed for ecological attributes including the use of timber sales, while the other NCMA acres are passively managed. Passive sites are typically ecological reference sites of old growth forests, non-forested (peatlands), too wet for timber sale activity, biologically rare sites on the landscape or open barrens. Of the remaining classifications on the NHAL, two Recreation Management Areas of 6,311 acres, one Wild Resources Management Area of 6,141 acres, two Habitat Management Areas of 5,388 acres, 2 scenic Management Areas of 1,052 acres and two Special Management Areas of 282 acres make up the rest of the NHAL property. Each of these classifications is focused on objectives that manage, protect and enhance their individual characteristics. Active forest management along with wildlife management, recreation management and passively managed zones are designated to parts or all of these classifications.

Northern Highland American Legion Land Management Classification Considerations

Broad review of all Classifications for consideration for land class adjustments to Forest Production Management Area (FPA). Stands considered for reclassification were identified in two categories, recommend areas and other areas considered but no recommended. Specific areas are described below.

Habitat Management Area 7, Ruffed Grouse Demonstration areas provide an opportunity for converting acres to Forest Production. Management of these areas is intensive aspen harvest and active management of hardwood stands. The focus on wildlife management objectives and harvest at economic maturity fit well with forest production management. The total acres of the two areas on the NHAL Forest are approximately 5400 acres.

All Native Community Management Areas (NCMA) were examined for opportunities to be converted to Forest production areas. Criteria focused on upland forested stands of aspen, hardwood and pine stands that would be managed according to NHAL Master Plan general management prescriptions. Zones or sites within areas that have high rankings in NHAL Master plan Assessments were not considered for conversion. Many aspen, hardwood and mixed species cover type stands on the fringe or finger shaped extensions on NCMA areas where also given consideration for conversion. NCMA objectives were considered in evaluations and staff looked at stands that would fit into FPA objectives without affecting the quality of remaining NCMA area designations. Each management classification area was evaluated separately for areas best suited for conversion to FPA. The areas with suggested changes are below.

Area 8. Lake Laura Loamy Hills Area has numerous stands in the area along CHY N that would be suitable for conversion. Selections fit many of our conversion criteria. There is another part of this area north of Ballard Lake that would also fit well. Management of those selected stands is very consistent with forest production management goals.

Area 9, Hemlock Hardwoods Area has several stands that would be considered for conversion. High quality hemlock stands are generally not managed on the NHAL and there are other hemlock/hardwood mixed stands that would be managed with forest production prescriptions when converted to FPA. These areas are currently in active management status and are located as fringe stands or stand-alone areas or on the edge of large blocking of this classification.

Area 10, Peatlands/Wetlands Area have opportunities for conversion of fringe upland, forested stands of aspen and hardwood. These stands border FPA and would fit well into the management objectives of FPA areas.

Area 11, Red and White Pines Area has several parcels on the NHAL that would be converted to FPA and fit well with the general prescription management protocol of the NHAL master plan. Stands chosen to reclassify are plantations mixed in with natural stands and the thinning management process of stands would retain their long lived structure and meet Master Plan goals. The old forest character of the small scattered Red and white pine stands would be maintained and actively managed to keep pine dominated tree types on the Forest.

Area 12, Mixed Forest Areas of the NHAL has several areas that would fit well with the FPA objectives. Many of these large sandy site areas are suitable as fringe stands of aspen, hardwood, oak and pine mixed forested areas. All considered sites are currently actively managed and many are located on the edge of large areas or stand-alone blocks of forested upland

sites. The objectives of these NCMA stands would fit into FPA areas without affecting the passive and old-growth areas that remain in NCMA classification.

Area 13, Special Aquatic Area are spread over the NHAL that contain aspen, jack pine and hardwood stands on their fringe that would be converted to FPA without changing their management practices. Most of these converted stands are small and border FPA.

Area 14, Johnson Lake Barrens has areas that are focused on aspen and jack pine intensive management and fit well into FPA that lie adjacent to their locations.

Area 20, 21 and 22, Recreation Management Areas contain large areas that are remote from intensive use areas and are currently managed to objectives and general prescriptions closely matched to FPA. The sensitivity to intense public use areas and aesthetics modifications can be maintained and still fit the goals of FPA.

Areas not considered for conversion to FPA on the NHAL include all State Natural Areas (SNA), all Scenic Management Areas, Wild Resources Management areas, including Wild and Wilderness Lake designations and Special Management areas 18 and 19. Special Management Areas include administrative areas where offices and buildings are located. These Special management Areas are in active management status and objectives are focused on aesthetics, visitor services and facilities that provide staff services. Also not considered were stands within the classifications that are currently in a high use recreational zone such as campgrounds, intensive trail areas, high quality old-growth sites, high ecological valued sites ranked high in NHAL CROG and Biotic Inventory Assessments of 2005 Master Plan analysis.

Small scattered red and white pine stands that are nested in the FPA currently would not be changes in this process. These stands are currently managed in active or passively depending on their location, accessibility and if adjacent stands are managed along with them. These stands would be grown to the maximum age stated in the Silvicultural handbook. Most would see management focused on natural regeneration of the pine through active management.

Peshtigo River State Forest - Forest and Land Classification Assessment

The forested lands of the Peshtigo River State Forest are predominantly covered by northern pin oak, aspen and pine species. Northern pin oak currently comprises 31% (2,612 acres) of the total forest acreage while aspen comprise another 27% (2,265 acres). The remaining forest acreage is covered by several upland species including red pine, oak, red maple, and jack pine; and by bottomland species including white cedar, green and black ash, white spruce, and tamarack. Forest reconnaissance (recon) is a technique used by foresters to gather specific information about the forest resource, including tree species and age, volume estimates, and acreages of various cover types. When the Department acquired the Peshtigo River State Forest lands in the early 2000's, an extensive forest recon initiative was undertaken. The recon acres include both forested and non-forested areas that may be suitable for forest management, wildlife habitat, or other resource protection and enhancement. The Peshtigo River State Forest consists of 9,057 recon acres. There are currently 8,468 forested acres and 589 non-forested acres. 5,684 acres are currently scheduled for management (67% of forested acres). The 2,784 acres not scheduled for forest management are located within a designated wild river zone (Shoreland Management Overlay Zone), designated wilderness area, or on islands or other inaccessible areas adjacent to the river. Recon is continuously updated and new recon is performed whenever new lands are acquired in the project boundary. A plan is in place to update recon property-wide at a rate that prevents information from becoming more than 20 years old.

Forest Type	Acres	Percent of Forested Acres
NORTHERN PIN OAK	2,612	31%
ASPEN	2,265	27%
RED PINE	1,248	15%
OAK	775	9%
RED MAPLE	551	7%
WHITE CEDAR	294	3%
JACK PINE	171	2%
WHITE PINE	170	2%
SWAMP HARDWOODS	163	2%
WHITE BIRCH	50	1%
BLACK SPRUCE	44	1%

An active forest management program is in place on the Peshtigo River State Forest. Since the master plan was approved in 2007, 3,145 acres have been established for timber sale purposes. These timber sales have generated 56,173 cords of pulp wood and 391,000 board feet of saw timber, totaling \$2,497,120.00. For each acre of harvested land, 18.13 cord equivalents (includes pulp wood and saw timber) were removed from the property and sent to forest industry. The Peshtigo River State Forest long term harvest goal (2016 – 2031) currently totals 2,154 acres providing a yearly average of 144 acres to be established and sold.

The existing master plan includes long and short-term forest management goals along with authorized management activities for several of the most prominent tree species on the property including aspen, oak, pine, and red maple. There are two main land classifications on the Peshtigo River State Forest: Forest Production Area and Native Community Management Area. There are also two Overlay Zones which provide additional management objectives to acreage included in the Forest Production or Native Community Areas. The allowable forestry-related activities differ in each of these areas. The Forest Production Area is the larger of the two, comprising 7,920 acres (87% of the total acres). The general management objective of a forest production area is the sustainable production of forest products. However, forest

production areas meet a wide range of ecological and recreational objectives. The specific objectives for any given management area may vary depending on site capability, forest types and societal needs.

The Native Community Management Areas, consisting of 1,046 acres (12% of the total acres), are located across 5 areas (3 of which are State Natural Areas) adjacent to the Peshtigo River and Flowages. The long-term management objectives in the Native Community Management Areas are to:

- Restore and maintain native plant and animal communities and other aspects of native biological diversity.
- Maintain a mosaic of rare or representative community types that include older closed canopy forest of longer lived species, undeveloped lake, forested seeps and bedrock glades.
- Maintain a diversity of forested and non-forested wetlands where suitable.
- Protect rare species habitats and high-quality natural communities.
- Provide for research, education and ecological interpretation.

The Peshtigo River State Forest has designated a Shoreland Management Overlay Zone as part of its licensing agreement with the Federal Energy Regulatory Commission (FERC) and the Wisconsin Public Service Corporation (WPSC). The Shoreland Management Overlay Zone (1,949 acres) consists of a 200 foot buffer along the river and flowage shorelines to protect and enhance the undeveloped scenic qualities of the river and flowages as well as the vegetation, wildlife, and fisheries of the riparian areas.

Three State Natural Areas have been identified on the Peshtigo River State Forest; Lake Lackawanna and Cedars, Johnson Falls, and Kirby Lake Hardwoods (637 acres in total). State Natural Areas (SNA's) are part of a statewide system of sites identified for the purposes of ecological research, education and assure the full range of ecological diversity for future generations. SNA's are unique because they can serve as stand-alone properties or they can be designated on other properties, such as state forests. SNA's on the Peshtigo River State Forest fall within the Native Community Management Areas.

Peshtigo River State Forest - Land Management Classification Recommendations and Considerations

The Peshtigo River State Forest master plan was written more recently than some of the other state forests and thus had the advantage of having the process guided by experience gained by earlier efforts. Because of this the discussions involved with defining the forest production management areas to be delineated quite specifically. As such, there is no recommendation to change land management classifications on the Peshtigo River state Forest.

Coulee Experimental State Forest - Forest and Land Classification Assessment

The Coulee Experimental State Forest contains 2,972 acres. Of these acres 2,837 or 95% are forested, with the remaining 135 acres being non-forested. The majority of non-forested acreage consists of open fields that are being maintained in an open state to keep them available for future research projects. Timber management practices are scheduled on 2,600 acres.

Currently oak is the most common timber type on the Coulee Experimental State Forest occupying half of the wooded acreage (50%). This percentage is expected to fall in the future however, as the oak is replaced by more shade tolerant northern and central hardwoods.

Forest reconnaissance (recon) is a technique used by foresters to gather specific information about the forest resource, including tree species and age, volume estimates, and acreages of various cover types. The information collected is the foundation for forest management and planning on the property. The Division of Forestry uses the commonly held industry practice of updating recon acreage on 5% of the property so that recon data is never older than 20 years of age. The table below shows the current status of forested acres on the state forest.

Forest Type	Acres	Percent of Forested Acres
Oak	1407	50%
Aspen	484	17%
Central hardwoods	408	15%
Red pine	153	5%
White birch	132	5%
Northern hardwoods	89	3%
White pine	60	2%
Misc. conifers	32	1%
Spruce	15	1%
Tamarack	14	1%

An active forest management program is in place on the Coulee Experimental State Forest. Of the 2,972 acres 2,299 acres or 77% of the property is designated as forest production management. The property has averaged 89 acres per year of timber sales since 2005. This number is expected to increase slightly over the next 10 years based on the number of acres that are scheduled for harvest over that period.

There are two master plan land classifications on the Coulee Experimental State Forest: Forest Production Area and Native Community Management Area. The allowable forestry-related activities differ in each of these areas. The Forest Production Area is the largest of the two, consisting of 2,299 acres (77% of the total acres) with a management goal to establish and maintain a forest community of diverse forest types and age classes for the sustainable production of a variety of forest products, wildlife habitat, biological diversity, and to offer a range of opportunities for dispersed, low-impact recreation in an aesthetic forest setting. Management in the forest production area focuses on maximizing timber production, depending on site capability, while utilizing sound silvicultural practices.

The Native Community Management Area classification includes 673 acres (23% of the total acres), and are located on 3 separate tracts on the property. The long-term management objectives in the Native Community Management Areas vary from providing a large area of reserved old-growth forest, to expanding high quality dry prairie remnants and oak openings. A little over half of these acres (58%) are actively managed including the use of timber sales, while the other 42% are passively managed.

Coulee Experimental State Forest Land Management Classification Recommendations and Considerations

The Coulee Experimental State Forest master plan was written more recently than some of the other state forests and thus had the advantage of having the process guided by experience gained by earlier efforts. Because of this the discussions involved with defining the forest production management areas vs. the native community management areas zeroed in on key attributes of the property, allowing both areas to be delineated quite specifically. As such, there is no proposal for changing the boundaries.