



Interim Forest Management Plan

Property Identifiers

Property Name: **Moose Lake State Natural Area**

Counties: **Iron**

Property Acreage: **4,291 Acres**

Forestry Property Code: **2650, Compartments 305 - 312**

Master Plan Date: **None**

Part 1: Property Assessment

General Property Description

Landscape and Regional Context

Moose Lake State Natural Area is located within the North Central Forest Ecological Landscape and is associated with both the Valhalla/Marenisco (McDonald) Moraines LTA (212Jc05) and the Glidden Drumlins (212Xa01) Land Type Associations. The property is located in a region that is dominated by large land ownerships including Iron County Forest, industrial forest lands and state-owned lands further to the south. This is a predominately forested landscape, with northern hardwoods and aspen as common covertypes in the uplands. Forested and unforested wetlands are fairly common in the region as well. Aquatic resources in the area include several relatively small streams including Moose Creek, which is part of the Flambeau Flowage watershed. The property encompasses the entirety of the shorelines of Moose Lake and Little Moose Lake.

The property is located within the Winegar Moraine-Moose Creek Conservation Opportunity Area and also the Moose Lake Important Bird Area.

Site Specifics

- **History of Land Use:**

Moose Lake SNA was purchased over the course of several years, with the original 40 acres acquired in 1975 from the Board of Commissioners of Public Land (BCPL). Additional acquisitions were made throughout the 1990's and early 2000's from numerous private land owners. The most recent transaction was completed in 2011 with a large purchase from Potlatch Timber Company, via The Conservation Fund land trust. None of these stands have been managed since Department acquisition. However, much of the accessible areas of this property were harvested during the logging era of



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the turn of the last century through the 1940s, removing the white pine, hemlock and then hardwoods. There are areas that were inaccessible to logging equipment, and thus have old-growth-like characteristics, particularly in scattered hemlock-yellow birch and cedar stands throughout. The high ground within the most recently acquired central portion of the property is younger with remnants of harvesting activity within the past 20 years.

- **Current forest types, size classes and successional stages**

Hemlock 1038 acres (29%)
Cedar 1025 acres (28%)
Swamp Hardwoods 509 acres (14%)
Northern Hardwoods 497 acres (14%)
Red Maple 193 acres (5%)
Tamarack 162 acres (4%)
Black Spruce 129 acres (4%)
Aspen 75 acres (2%)

Currently, there is a wide array of age class, species diversity, structure, and size distribution across this property. Within all these stands, there is a mix of saplings, poletimber and sawtimber size classes. Much of the accessible areas of this property were harvested during the logging era of the turn of the last century through the 1940s, removing the white pine, hemlock and then hardwoods. There are areas that were inaccessible to logging equipment, and thus have old-growth-like characteristics, particularly in scattered hemlock-yellow birch and cedar stands throughout. The high ground within the most recently acquired central portion of the property, is younger with remnants of harvesting activity within the past 20 years. These areas contain lower density levels, and more brush. North of Moose Lake Road, the northern hardwood has not been actively managed since acquisition, and thus is well overstocked and declining in health and quality. Most of the aspen and fir stands are reaching their economic rotation age, around 60+ years of age. Some of these stands are showing signs of decline, naturally converting to longer-lived species. The red maple averages between 60 and 80 years. These stands are a mixed forest component, containing fir, cedar, and black ash on lowland edges, and a fir-northern hardwood component on more of the upland transition sites. Tamarack and black spruce are even-aged, and primarily established in the 1920s, while the cedar and swamp hardwood stands are well over 160 years of age.

- **Biotic Inventory Status** – Biotic Inventory has not taken place on this property.
- **Deferral/Consultation Sites** – None have been designated.
- **High Conservation Value Forest** - Element Occurrences for Northern Mesic Forest and Northern Wet-Mesic Forest are present on the property and are considered examples of HCVF.



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- **Rare Species** – The property contains Element Occurrences for several uncommon wildlife species. The NHI database will be screened prior to any management activities taking place.
- **Invasive Species** – Significant populations of invasive plant species are not known to occur on the property, but a comprehensive survey has not taken place.

Cultural and Recreational Considerations

- **Cultural and archeological sites:** There is an Archaeological Site identified by the Wisconsin Historical Society on this property. The Department's Archaeologist will be consulted prior to initiating management in the identified area of the Archeological site.
- **Recreational Uses:** Fishing, hunting, trapping and sightseeing are the primary recreational uses on this property. Moose Lake Road, which bisects part of the property, is part of the county ATV trail system.

Part 2: IFMP Components

Site Objectives

Manage the older hemlock-hardwood stands at the site as a reserve for northern mesic/wet-mesic forest and as an ecological reference area. Natural processes will determine the structure of the older forest and wetlands. Throughout the property, manage towards stand conditions that exhibit old-growth characteristics. Provide opportunities for research and education on the highest quality native northern forest and wetland ecosystem.

Management approach

The core area, containing northern hardwoods, hemlock-hardwoods, swamp conifers and swamp hardwoods are managed passively, which allows nature to determine the ecological characteristics of these stands. The sedge meadow, lowland brush areas and the lakes also do not require any active management at present, although if invasive species are found action may be taken.

Certain peripheral stands of aspen and northern hardwoods will be managed to promote natural cover type diversity for this area. Specifically, use timber harvests in the Northern portion of the property to increase growth and vigor of the northern hardwoods stands and long-term conversion of the aspen stands to longer-lived species, particularly hemlock-hardwoods. The long-term goal of these stands is to create old-growth forest characteristics.

The initial harvests are needed to prepare the stands for more options in the future, and to reach the property goals sooner. Presently they are in less than ideal status for growth and vigor. Apply appropriate silvicultural systems when conducting timber management activities.

Property Prescriptions (Identify specific and pertinent prescriptions by area or forest type, including passive management areas, extended rotation, and other information that will help achieve the objectives):

Timber management activities on this property will be subject to the approval of the Northern District Ecologist. The Northern District Ecologist should be



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contacted prior to establishment of timber sales on Moose Lake State Natural Area.

Aspen – In the Northern portions of the property, convert aspen stands to longer-lived species wherever opportunities exist. Green tree retention will be practiced in these stands while also focusing on snag and den/cavity tree retention. Retention will be concentrated near and between ephemeral ponds, where possible. In most cases, all pine, oak, hemlock and cedar will be retained, and areas of advanced regeneration of these species will be protected and released.

Northern Hardwoods and Red Maple – Using Moose Lake Road as a dividing line, actively manage the NH stands north of the road, and passively manage those NH stands to the South. In actively managed stands, use uneven-aged selection (single tree or group selection) harvests to encourage long term multi-aged diversity. Gaps will be created to encourage age class diversity and edge cover. Promote oak, yellow birch and hemlock where opportunities exist. Snags, cavity trees, and other trees that have special value to wildlife will be retained. The long-term goal of these stands is to create old-growth forest characteristics.

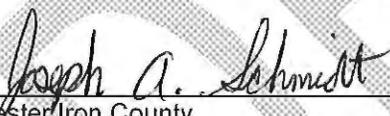
Hemlock – No active management in hemlock stands

Lowland conifer – No active management in black spruce, tamarack and cedar stands.

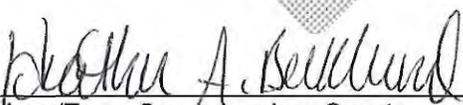
Swamp Hardwoods – No active management in swamp hardwood stands

Approvals:


District Ecologist Northern District 12-9-13
Date


Forester Iron County 12-16-13
Date


Property Manager for Moose Lake State Natural Area 12-9-13
Date


Area/Team Supervisor Iron County 12-16-13
Date