



Interim Forest Management Plan

Chilsen Demonstration Forest

Property Identifiers

Property Name and Designation: Chilsen Demonstration Forest

County: Lincoln

Property Acreage: 67 acres

Forestry Property Code: 3508

Master Plan Date: None yet. Tentatively 2020-2024.

Property Assessment

Landscape and Regional Context: The Chilsen Demonstration forest is located in the Forest Transition Ecological Landscape. These properties include the following Land type Associations: 212Qc02 Medford-Hamburg Moraines and 212Qc03 Merrill Outwash Plain. There are no designated Conservation Opportunity Areas or Wisconsin Important Bird Areas associated with the property.

In the early 1900's, near the end of the pine era, the untapped potential of the vast stands of hardwoods and hemlock in Lincoln County was realized. The Chilsen Demonstration Forest was clearcut in 1920. Much of the suitable cut over land in the forest transition was cleared for agriculture leaving lands too wet or too rocky to grow back to forests. The result is a mosaic of woodlands and agricultural lands in this landscape.

Site Specifics:

- Current forest types, age classes and successional stages:
 - Northern Hardwoods - A total of 48 acres (71%) of recon is typed as northern hardwoods. The dominant size class is large saw timber 15+” in diameter (31 acres). The next most prevalent size class is 5-11” (14 acres). Three acres were regenerated to demonstrate even-aged management in 1991 making saplings the third most prevalent size class.
 - Hemlock comprises the bulk of the remaining timber types. 10 acres are 9-15” in diameter and 5 acres is 15+” in diameter. Much of the hemlock has abundant natural regeneration of hemlock with over 3000 seedlings and saplings per acre.
 - A small amount of the property is comprised of swamp conifers which are dominated by tamarack.

Property History:

The land that comprises the Chilsen Demonstration Forest is comprised of two parcels. The first parcel is a 44 acre property just south of the intersection of County Highways C and G in the Township of Schley. The second parcel is a 23 acre property on the west shore of Echo Lake in the Township of Russell. The 44 acre property was originally clearcut in 1920 and then



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purchased by the Chilsen family in 1925. In 1947 the land was leased to the University of Wisconsin as an area used to demonstrate the following:

1. Continuous periodic harvests of timber crops
2. Compatible recreational uses
3. Wildlife management and habitat management.
4. Watershed protection and restoration
5. Logging techniques and safety.
6. Utilization and marketing practices
7. Growth projection methodology
8. Analysis of silvicultural strategies.

For 40 years the University of Wisconsin and the WI DNR managed the property and conducted field tours. The University of Wisconsin along with staff from the North Central Forest Experiment Station (Stoeckeler and Arbogast) of the USFS maintained, re-measured and analyzed data on 20 continuous forest inventory (CFI) plots that monitored growth and yield, species composition, ingrowth and mortality, and harvest levels over time. By 1990 the University of Wisconsin lacked the staff and budget to continue their lease of the property. The Chilsen family donated the property to the WI DNR in 1991 who has continued management along with staff from the North Central Forest Experiment Station and re-measurement of the CFI plots. The property has become part of a system of demonstration forests across the state.

The property has been used as a demonstration area for landowners to see the effects of various management strategies. Many field days and tours have been held on the property for the public.

The 23 acre property was donated in the 1990's and has not been managed extensively as the forest inventory indicated no management was needed at the time.

Rare Species:

Both properties contain northern mesic forest a community of concern.

The Echo Lake property may have a possible rare reptile as one was observed within 1 mile of the property.

High Conservation Value Forests (HCVF) or other resources/natural community types limited in the landscape:

Within the Forest Transition Ecological Landscape, Northern Mesic Forest is listed as a major ecological gap in the State Natural Area system.

Biotic Inventory Status: None

Cultural and Archeological Sites (including tribal sites): The Lincoln County Archaeological and Historical Sites map (WDNR, 2012) indicates no hits on any of the properties.

Recreational Uses: Both properties are open to the public for hunting, hiking, and fishing. No designated or improved hiking trails occur on either property. The 44 acre track has a snow mobile trail running through the eastern half of the property. This trail is very wet and limited to snowmobile use.

Invasive Species: No invasive species have been observed on the property along Echo Lake. A few buckthorns have been observed in the parking lot on the southern 44 acres. These will be controlled either chemically or mechanically when management takes place and after management takes place on the property.

Soils: The southern 44 acre parcel is dominated by a Magnor Silt Loam soil in the upland portions of the property and Minocqua Muck in the Hemlock portions of the property. These soils are very wet which will limit harvesting to frozen ground conditions.



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The 23 acres along Echo Lake are Padwet and Pence-Padus sandy loam soils in the uplands and a Minocqua muck soil in the lowland areas of the property.

IFMP components

Management Objectives:

Northern Hardwoods:

The primary objective for this timber type is to maintain and regenerate these stands while demonstrating the range of management options for the sustainable management of northern hardwoods both uneven-aged and even-aged. The primary values for management are demonstrating methods of timber production while maintaining or enhancing wildlife values, watershed protection and aesthetics.

Hemlock/Tamarack:

The management objective for the hemlock depends on the parcel. On the northern parcel adjacent to Echo Lake the objective is to preserve hemlock and tamarack along the shore of Echo Lake as a riparian management zone. On the southern parcel the management objective for hemlock is to demonstrate methods to maintain and regenerate hemlock outside riparian zones.

Property Prescriptions:

- Northern Hardwoods :

Stand 1 of Compartment 1 is a 31 acre stand that has been managed uneven-aged for several harvests over a number of decades and has now begun to develop a regulated age and size class distribution. This management regime will continue by implementing harvests designed to improve stand quality by removing poor quality trees and releasing crop trees. Canopy gaps will be included to enhance regeneration of species such as yellow birch, basswood and white ash and to enhance shrub and ground layer communities to benefit wildlife. Treatment blocks managing to a maximum diameter of 18", 24" and 30" have been established and will be continued so as to demonstrate the pros and cons of each management goal.

Stand 2 in Compartment 1 is sapling-sized even-aged northern hardwoods and will be managed even-aged through periodic thinning to release the best quality trees and red oak.

Stand 1 in Compartment 2 will be managed uneven-aged to a maximum diameter of 24 inches.

- Hemlock/Tamarack:
Stand 3 in Compartment 1 (the southern parcel) will be managed by individual tree selection harvests under uneven-aged management designed to discriminate against all hardwood species except yellow birch and create a mixture of canopy gaps or group selection harvests to release the abundant hemlock seedlings and saplings. Maximum stand diameter will be extended retaining trees that approach biological maturity.

Stands 2 and 3 of Compartment 2 (the Echo lake Parcel) will be left unmanaged as buffer areas along Echo Lake's western shore.



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Approvals:

Regional Ecologist

Date

Forester

Date

Property Manager

Date

Area/Team Supervisor

Date