Property Name: Apple River Timber Harvest Forest

Property Designation or Type: Demonstration Forest

DNR Property Code Number: 6910
Forestry Property Code: 4988

Property Location-County: Polk

Real Estate:
Fee acres owned: 46
Easement acres owned: 0
NRB approved acreage goal (land records):

Maps
1. Ownership, State Locator, Facilities (Page 4)
2. Property Boundary and Cover Types (Page 5)
3. Original Survey (Page 6)

Property Manager: Paul Heimstead

Address 1: DNR Forestry
Address 2: 941 Mallard Lane Rm 104
City, State, Zip: Balsam Lake, WI 54810
Office Phone: 715-485-3518

Approved by Natural Resources Board: Date: Oct. 29, 2014
A. Regional and Property Assessment

1. Landscape and Regional Context

The Apple River Demonstration forest is located entirely within the Forest Transition Landscape. It is located in the part of Wisconsin covered by the Superior lobe of the Keewatin ice sheet. The characteristic landform pattern is rolling collapsed moraine interlaced with outwash terraces and intermixed with ice-walled lake plains. Soils are predominantly moderately well drained sandy loam over dense, acid sandy loam till. Common habitat types include ACaCi and AA.

2. Ownership and Adjacent Land Uses

The property is surrounded by wooded private property on 3 sides and the county owns lands on the other. The Apple River serves as the east boundary. Current surrounding land uses are classed as productive forest.

3. General Property Description and Management History and Use

Land for this 46 acres forest was purchased from LeRoy and Clarence Markee of Amery, Wisconsin in 1946 for $5200. So far as it is known, heavy timber cutting has never occurred on this land. From 1938 to 1945, the forest was grazed quite severely in some parts.

The current forest is predominantly red oak 90-100 years old with several patches of older white pine. Northern hardwoods dominate the understory.

Management objectives have been to maintain northern hardwoods but to explore red oak and white pine regeneration as these species mature beyond the thinning stage.

In 1947, the forest was divided into 8 compartments of 5 to 8 acres in size with the goal of cutting one each year for demonstration purposes. 21-5th acre permanent plots were established and measured 6 times through 1961. 7 timber harvests were made through 1957, two of them being salvage cuts that covered the entire property. The latest harvest was in 1985 being again part salvage and part selection. Over 230,000 Board Feet have been removed from the forest during these harvests, yet current standing volumes are similar to those in 1946.

Latest activities include: creating an access point off of State Hwy 8, dozer scarification on a few acres in 1992 to stimulate white pine and/or red oak regeneration, boundary re-establishment in 2001, permanent plot relocation in 2003, and reconnaissance update in 2008.

Soils: The soils are a combination of Amery and Santiago silt loams, Rosholt loam, and Cromwell sandy loams. There are some fluvial and saturated soils associated with the river along the east boundary.

Water Resources: The Apple River is the properties property’s east boundary. The Apple River is a high value warm water stream, which supports a regionally noted recreational industry centered on tubing float trips. The river is impacted by nonpoint source pollution generally agriculturally related although rural residential development is increasing. This stream and watershed should be considered a high priority for nonpoint source pollution control.
4. **Land Management Cover Types**
(land cover, forest cover types, size class and successional stage)

The property is 100% wooded and is typed as 86% large sawlog size red oak and 14% large sawlog size white pine. The oldest hardwood is just over 100 years old and the oldest white pine is just over 135 years old. The understory is mainly a mix of northern hardwood species including red maple, sugar maple, basswood, elm, and ash.

5. **Endangered, Threatened, Special Concern Species or Habitats, and Wildlife Species of Greatest Conservation Need**

Northern dry mesic forest is noted on the current NHI database review. This is a common forest community in this area.

6. **Invasive Species**

None noted on latest reconnaissance data, but buckthorn is likely present.

7. **Cultural and Archaeological Features**

No archeological or historic sites have been identified to date.

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8. **Public Uses and Infrastructure**
(recreation uses, recreation facilities, road infrastructure, etc)

A state snowmobile trail bisects the property north to south. This trail is maintained by the local club. Access to the property is a small driveway off of State Highway 8 through county owned woodlands on the north side of the property.

The main recreation uses of the property are hunting, snowmobile, and fishing.

9. **Refuges and other Closed Areas**

None

(Describe and include in map):

10. **Administrative Facilities**

None

(administration facilities, service roads, etc)

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**Significant Property Management Issues, Trends and Needs:**

**Need:** Securing legal access to the property. Current access is across county owned woodlands that are managed in conjunction with the demonstration forest (county land restricted by deed).

**Trend:** Seemingly endless threats to forest health from invasive plant species, non-native and native forest insects, diseases and deer, all being exacerbated by climate changes, will likely become more and more of an issue as time goes on.
# B. Property Purpose and Goals

## Management Objectives and Prescriptions

### 1. Property Purpose and Goals

The purpose of the stewardship demonstration forests is to demonstrate sustainable forest management and responsible stewardship while also using these lands as educational tools for students, professional foresters and non-industrial private forest landowners. The forests provide an opportunity to demonstrate active timber management and sustainable forest management. While growth and yield records are no longer maintained on a regular basis, most of the tracts do have good historical information that may be useful in research, and the lands are open for potential “new” research opportunities.

### 2. Current and Planned Land Management Objectives and Prescriptions

<table>
<thead>
<tr>
<th>Cover Types</th>
<th>Total Acres</th>
<th>Management Objectives</th>
<th>Management Practices</th>
<th>Management Issues and Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oak Woodland</td>
<td>40</td>
<td>The objective of this stand is to use periodic single tree and group selection practices through big tree silviculture to maintain an oak component as long as possible while slowly converting the stand to a mix of northern hardwoods and white pine.</td>
<td>Single tree and group selection improvement harvests as density and stand condition dictate.</td>
<td>Access, economic feasibility, and deer browse damage.</td>
</tr>
<tr>
<td>White Pine Woodland</td>
<td>6</td>
<td>The objective of this multi parted stand is to grow large white pine to biological maturity using single tree selection and improvement thinnings to maintain the health and growth of the residual.</td>
<td>Single tree selection for stand health in conjunction with stand 1.</td>
<td>Access, economic feasibility, and deer browse damage.</td>
</tr>
</tbody>
</table>
## Current and Planned Facilities or Infrastructure

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Total (number/length)</th>
<th>Management Activities</th>
<th>Management Issues and Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads - public</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roads – non-public</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking lots</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boat landings</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Designated trails</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managed, non-designated trails</td>
<td>1</td>
<td>Snowmobile trail maintenance by local club</td>
<td>None</td>
</tr>
<tr>
<td>Dikes, ditches</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dams</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Other On-going Management Activities (add additional items as necessary)

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Current Management Actions</th>
<th>Management Issues and Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Boundary Modification</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Invasive exotic species</td>
<td>Inventory and monitoring</td>
<td>Time and Funding</td>
</tr>
<tr>
<td>Endangered, Threatened, Special Concern Species or Habitats, and Wildlife Species of Greatest Conservation Need</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Cultural and Archeological Resources</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

### Additional Comments: None

### Changes or Additions to Current Management and Development: None
Summary of Public Involvement Activities

On May 20, 2014, a 21-day public review period for revision of Stewardship Demonstration Forest property management plans was publicly noticed statewide. Publics and partners were informed by way of a statewide press release and an email distribution to subscribers of ‘eGov’, a statewide government delivery system.

A comprehensive DNR web page was developed for Stewardship Demonstration Forests to describe their history and purpose, and to identify individual properties and locations. Draft management plans were posted on the website for public viewing.

The public was invited to respond by on-line electronic comment form, paper comment forms and email. Consultation occurred for Stewardship Demonstration Forests located within the tribal ceded territory.

No comments were received by the public.
Apple River Harvest Demonstration Forest