DATE: May 25th, 2018

TO: Timber Sale Reviewers/ Partners

FROM: Tom Shockley, NHAL Forestry Staff

SUBJECT: Proposed Timber Sale Establishment for 2018/2019

For your review are 52 proposed timber sale areas on the NHAL State Forest. Similar to year’s past, we are providing a map and brief treatment descriptions for individual stands within the sale areas. We are seeking your input at this early stage of the timber sale establishment process so we can be responsive to major concerns. Each of the sale maps includes specific information about the proposed sale areas including the Master Plan land classification designation (Forest Production, Native Community, Scenic Management, etc.). Different than year’s past is that for this review I’m requesting that your comments be sent to me. If I’m unable to respond to the comments I will forward to the appropriate forester for their review. In some cases, field visits may be possible to look at areas of special concern. Note that sales in bold/italic are hold-over sales from last year’s list.

Thank you for your interest and your attention to this very important portion of our timber sale program. We truly value your input and look forward to hearing from you.

Sincerely,

Tom Shockley

Tom Shockley
NHAL State Forest Team Leader
(715) 614-4443
Tom.shockley@wisconsin.gov
### 2018 -2019

**Presales**

**Bold** sales are hold-overs from the 2017 list

**Underlined** sales are new for 2018-2019

<table>
<thead>
<tr>
<th>Sale Number</th>
<th>Compartment</th>
<th>Name</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>6A &amp; 7A</td>
<td>Buffalo Border</td>
<td>296</td>
</tr>
<tr>
<td>2.</td>
<td>7A &amp; 19A</td>
<td>Dog Creek Aspen &amp; Pine</td>
<td>216</td>
</tr>
<tr>
<td>3.</td>
<td>7H, 22H, 23H</td>
<td>Camp 2 and Lake Laura</td>
<td>245</td>
</tr>
<tr>
<td>4.</td>
<td>8A</td>
<td>Pickerel P &amp;P</td>
<td>218</td>
</tr>
<tr>
<td>5.</td>
<td>10H</td>
<td>Wharton Lake</td>
<td>177</td>
</tr>
<tr>
<td>6.</td>
<td>13A</td>
<td>Mid Lake Pine</td>
<td>42</td>
</tr>
<tr>
<td>7.</td>
<td>15A</td>
<td>Italy Bay Oak</td>
<td>99</td>
</tr>
<tr>
<td>8.</td>
<td>16A</td>
<td>Sweeney Creek</td>
<td>97</td>
</tr>
<tr>
<td>9.</td>
<td>17H</td>
<td>Found Creek Pine and Aspen</td>
<td>300</td>
</tr>
<tr>
<td>10.</td>
<td>22A</td>
<td>Hasbrook Landing</td>
<td>197</td>
</tr>
<tr>
<td>11.</td>
<td>29A &amp; 31A</td>
<td>River Road Revisited</td>
<td>134</td>
</tr>
<tr>
<td>12.</td>
<td>32H</td>
<td>McGinnis Creek</td>
<td>242</td>
</tr>
<tr>
<td>13.</td>
<td>33H</td>
<td>Alva Lake</td>
<td>269</td>
</tr>
<tr>
<td>14.</td>
<td>37A</td>
<td>Bertland Road Aspen</td>
<td>39</td>
</tr>
<tr>
<td>15.</td>
<td>41A</td>
<td>Illuminating Hardwoods</td>
<td>227</td>
</tr>
<tr>
<td>16.</td>
<td>44A</td>
<td>Foxy Aspen</td>
<td>112</td>
</tr>
<tr>
<td>17.</td>
<td>45H &amp; 8A</td>
<td>Call Me Mamie</td>
<td>100</td>
</tr>
<tr>
<td>18.</td>
<td>48A</td>
<td>Woodcock West</td>
<td>168</td>
</tr>
<tr>
<td>19.</td>
<td>50A</td>
<td>Pier @ Popple</td>
<td>38</td>
</tr>
<tr>
<td>20.</td>
<td>51A &amp; 52A</td>
<td>Rainbow Pot of Pine</td>
<td>84</td>
</tr>
<tr>
<td>21.</td>
<td>54H</td>
<td>White Birch Lake</td>
<td>91</td>
</tr>
<tr>
<td>22.</td>
<td>62A</td>
<td>Whispering Pines</td>
<td>77</td>
</tr>
<tr>
<td>23.</td>
<td>71H</td>
<td>Plum Lake II</td>
<td>93</td>
</tr>
<tr>
<td>24.</td>
<td>/8H</td>
<td>Cloud Nine Pine</td>
<td>76</td>
</tr>
<tr>
<td>25.</td>
<td>80A</td>
<td>New Age Aspen</td>
<td>113</td>
</tr>
<tr>
<td>26.</td>
<td>81H &amp; 101H</td>
<td>Highway N Aspen</td>
<td>54</td>
</tr>
<tr>
<td>27.</td>
<td>82H &amp; 100H</td>
<td>Blueberry Lake</td>
<td>268</td>
</tr>
<tr>
<td>28.</td>
<td>82H &amp; 115H</td>
<td>Reactive Red Pine</td>
<td>110</td>
</tr>
<tr>
<td>29.</td>
<td>85H</td>
<td>Escanaba East</td>
<td>253</td>
</tr>
<tr>
<td>30.</td>
<td>92H</td>
<td>Oswego Fishtrap Lake Road</td>
<td>181</td>
</tr>
<tr>
<td>31.</td>
<td>100H &amp; 115H</td>
<td>Proactive Popple</td>
<td>381</td>
</tr>
<tr>
<td>32.</td>
<td>107H &amp; 108H</td>
<td>Ripened Red Pine &amp; Oak</td>
<td>93</td>
</tr>
<tr>
<td>33.</td>
<td>112H</td>
<td>Rossy Oak</td>
<td>278</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Price</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>34.</td>
<td>114H Plum-Vitae Hardwoods II</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>35.</td>
<td>118H &amp; 128H Old K Corral Pine</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>36.</td>
<td>119H Lumberjack Trail Aspen</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>37.</td>
<td>126H Boulder Junction Airport Pine</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>38.</td>
<td>137H Roach Lake Oak</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>39.</td>
<td>151H North Creek &amp; HWY M</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td>40.</td>
<td>168H Vandercoooked</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>41.</td>
<td>170H &amp; 181H Day Lake North</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>42.</td>
<td>177H Dead End Road</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>43.</td>
<td>185H Uppercut Punch</td>
<td>278</td>
<td></td>
</tr>
<tr>
<td>44.</td>
<td>192H Upper Gresham Lake</td>
<td>148</td>
<td></td>
</tr>
<tr>
<td>45.</td>
<td>195H Flowing Risto</td>
<td>172</td>
<td></td>
</tr>
<tr>
<td>46.</td>
<td>196H Maple Lake East</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>47.</td>
<td>213H Camp Lake Aspen</td>
<td>299</td>
<td></td>
</tr>
<tr>
<td>48.</td>
<td>257H Powell Aspen</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>49.</td>
<td>275H HWY 47 Pine</td>
<td>91</td>
<td></td>
</tr>
<tr>
<td>50.</td>
<td>281H North Bass Lake</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>51.</td>
<td>288 HWY 182 Aspen/Spruce</td>
<td>177</td>
<td></td>
</tr>
<tr>
<td>52.</td>
<td>337H Presque Isle Ponds</td>
<td>57</td>
<td></td>
</tr>
</tbody>
</table>

52 Proposed Sales       Total         7919
Northern Highland - American Legion State Forest
C6A Stands 7 & 14 & C7A Stands 27 & 31
Buffalo Border 296 Acres
Town of Woodruff, Oneida County, T39N-R7E Sec. 1,2,11 & 12
Town of Newbold, Oneida County T39N-R8E Sec. 6 & 7
Mgmt. Area 5 - Big Arbor Vitae Loamy Hills - Forest Production
Mgmt. Area 6 - Oneida Sandy Plains - Forest Production

Scale: 4" = 1.136 Mile
1:18,000

Legend

+ Section Corner
--- Woods Roads
Red Snowmobile Trails
Green Highways and Town Roads
Gray Pine Thinning Area
Brown Aspen Regeneration Area
Blue Lakes

Map produced by Jim Wilkes, 4/78

Area 5 - Big Arbor Vitae Loamy Hills - Forest Production
Area 6 - Oneida Sandy Plains - Forest Production

C6 Stand 7 & C7 Stand 31 (152 Acres) are comprised of well stocked red pine and white small sawtimber over red pine poletimber. Stand 7 originated in 1832 & stand 31 originated in 1922. Both stands have previously been thinned. These stands will be thinned again to improve crown spacing and provide optimal growing conditions for residual crop trees.

C7 Stand 27 (64 Acres) is comprised of a well stocked stand of primarily aspen poletimber which originated in 1969. This stand will be regenerated using a simple coppice with standards harvest prescription. The goal is to maintain aspen as a strong component across the landscape.

C6 Stand 14 (80 Acres) is comprised of well stocked red pine poletimber with associated red pine small sawtimber which became established in 1963. Overall basal area is variable with dense clumpy patches and other portions of the stand have lower stocking levels due to the jack pine that was removed during the last treatment. The stand was last thinned in 2008 and is in need of a thinning to reduce basal areas to appropriate stocking levels for optimal growth and vigor.

There is a snowmobile trail that runs through a portion of the sale. The trail will be signed if logged in the winter. Recreational hunting use should improve in the future as the aspen stand regenerates. There is a good network of woods roads for hauling.
C7A-Stand 2 (10 Acres): This stand is an overstocked pole-sized red pine plantation with a year of origin of 1887. A first mechanical row thin is proposed for this stand. The thinning with promote growth and vigor of the stand.

C19A- Stands 1, 2, & 3 (79 Acres): These three stands are composed of sawlog red and white pine with a year of origin of 1900. Some portions of these stands are more dominated by red pine while other areas are more dominated by white pine. These stands where thinned in 2005. A significant understory of advanced regeneration of various species is present throughout much of the area. Desirable advanced regeneration includes white pine, red pine and oak. Less desirable red maple is present to some degree throughout the understory as well. A shelterwood harvest is proposed to encourage the development of the understory and favor establishment of additional regeneration.

C19A-Stand 6 (117 Acres): This stand is composed primarily of mature aspen with a year of origin of 1973. Associated species present include red maple and white birch. Scattered mature red pine, white pine, and red oak are present to a lesser degree. A regeneration harvest is proposed to maintain the site in the early successional aspen type.

Aesthetic concerns along CTH J and the snowmobile trail will be lessened by a significant overstory following harvest and slash restrictions. Areas along the creek will be buffered by an uncut riparian management zone. Appropriate signage will be displayed in conjunction with the snowmobile club if harvested in the winter season.
Northern Highland – American Legion State Forest
C7H Stand 11, C22H Stands 5 and 11, C23H Stands 12, 21 and 33
Camp 2 and Lake Laura 245 acres
Town of Plum Lake, Vilas County
T41N R8E Sec. 2 & 11 T42N R8E Sec. 26, 27, 35 & 36
NHAL – SF Master Plan: Mgmt. Area 3 – Vilas Sandy Plains North – Forest Production
Mgmt. Area 8 - Lake Laura Loamy Hills - Native Community

This proposed sale covers two management areas. The goal for the Vilas Sandy Plains North Forest Production Area (FPA) is to increase the presence of red and white pine as a dominant community type and to maintain the current levels of red oak. The goal for the Lake Laura Loamy Hills Native Community Area (NCA) is to increase snags and coarse woody debris, maintain red oak and increase the presence of white pine and northern hardwoods.

The NCA Oak Area, stands 5, 11, and 33 had either an initial shelterwood harvest or a thinning conducted in 2010. These stands are ready to have the overstory removed to release the established seedlings or the initial shelterwood cut. Snag, den and potential cavity trees will be favored for retention.

The FPA Oak Area is stand 21 and consists of large sawlog oak about 99 years of age. Different areas of this 108 acre stand will undergo either a thinning or initial shelterwood harvest.

Stand P12 is in the FPA and is a 78-year old stand of sawlog Norway spruce. This stand consists of a species of tree that is non-native to the forest. The stand will be clearcut and converted to pine.

Seasonal restrictions to prevent oak wilt will be imposed in areas where oak is dominant. Biomass harvesting will not be allowed due to management area restrictions and nutrient poor soils.
Area 6 - Oneida Sandy Plains - Forest Production

Stands 6, 11 & 26 (115 Acres) are comprised of well stocked red pine and white small sawtimber over aspen poletimber. Stands 6 & 11 originated in 1924 and stand 26 originated in 1918. Stands 6 & 11 were thinned before while stand 26 hasn't. These stands will be thinned at this time to improve crown spacing and provide optimal growing conditions for residual crop trees.

Stand 5 (70 Acres) is comprised of a well stocked stand of primarily aspen poletimber which originated in 1970. This stand will be regenerated using a simple coppice with standards harvest prescription. The goal is to maintain aspen as a strong component across the landscape.

Stand 7 (14 Acres) is comprised of a good stocking of large sawtimber red pine over aspen saplings. This stand originated in 1892 and is showing signs of decline. Overall basal area is variable. The stand was last thinned in 2008. At this time a selective thinning will be completed to remove high risk trees and release advanced regeneration to full sunlight.

Stand 27 (19 Acres) is comprised of white birch poletimber which originated in 1919. Much of the birch is deteriorating. At this time all of the birch, aspen, and poor quality red maple will be harvested so they can stump or root sprout naturally. Oak and pine will be thinned as needed.

There is a snowmobile trail that runs through a portion of the sale. The trail will be signed if logged in the winter. Aesthetics are a concern between Hwy J and Pickerel Lake and will be addressed with safe design. There is a good network of woods roads for hauling.
Northern Highland - American Legion State Forest
Compartment 10H Stands 2, 5, 9, 14, 22, & 24
Wharton Lake - 177 acres
Town of Plum Lake, Vilas County, T41N R8E Sections 24, 25, 26 & 35
NHAL Master Plan: Area 4 - Vilas Sandy Plains Central Forest Production

**Legend**
- Red Pine
- White Pine
- Northern Hardwood
- Spruce
- Section Corners
- Gates
- Boat Landing
- Snowmobile Trails
- Woods Roads
- Town/County Roads
- Rivers/Creeks

**STAND 2** (38 acres) is a 105 year old white pine/red pine stand that will be thinned for a second time. It was last thinned in 1984.

**STAND 5** (6 acres) is a 100 year old spruce stand with a strong white pine secondary type. It was last thinned in 1984. Spruce budworm is attacking the edges of this stand so most spruce will be cut in a salvage attempt. White pine areas will be thinned and a few spruce will be retained, but the stand will be converted to white pine.

**STAND 9** (16 acres) is an uneven-aged northern hardwood stand. This stand will undergo a single tree selection thinning with gaps. Most short-lived species will be cut, except some white birch will be retained for seeding in some of the gaps.

**STAND 14** (25 acres) is a mixed white pine stand of 1949 origin. Aspen, white birch, and balsam fir are strong secondary components. The pine will be thinned and short-lived species will be cut to encourage longer-lived species. Most oak will be retained and some maple will also be retained within the Wharton Lake riparian mgmt zone.

**STAND 22** (65 acres) is 105 year old red pine/white pine stand that will be thinned for a second time. It was last thinned in 1963.

**STAND 24** (27 acres) is a 27 - 31 year old red pine plantation that will be thinned for the first time. Some areas will be row thinned and others selectively marked due to the plantation spacing. Original planting was 1986, but additional plantings occurred in sparse areas 1989-1990. Older balsam fir remainders from the 1984 timber sale will be cut to favor the red pine.

There are old, grown-in roads present throughout the sale area that will need to be reopened for access. Aesthetics near Wharton Lake and the boat landing will be maintained with additional healthy leave trees left near that area.
Northern Highland - American Legion State Forest
C13A Stands 2 & 6
Mid Lake Pine 42 Acres
Town of Woodruff, Oneida County, T39N-R7E Secs. 18 & 19
NHAL - SF Master Plan: Mgmt. Area 6 - Oneida Sandy Plains - Forest Production
Mgmt. Area 22 - Clear Lake - Recreation Management

Legend
+ Section Corner
= Boat Landing
--- Powerline
--- Woods Roads
--- Snowmobile Trails
--- Highways and Town Roads
Blue Lakes

Area 6 - Oneida Sandy Plains - Forest Production Area

Stand P12 (2 Acres) is comprised of an overstocked red pine plantation that originated in 1966. Records indicate that no management has taken place since then. Basal area averages 223 sq. ft./acre. This stand would benefit from an initial row thinning, along with trees marked in adjacent rows, to provide for optimal growing conditions. This stand is at the end of a dead end town road with private property south of the stand. Access might be an issue to manage this red pine plantation.

Area 22 - Clear Lake - Recreation Management

Stand 6 (40 Acres) is comprised of well stocked natural red and white pine large sawtimber with a year of origin of 1848. This stand is currently averaging 193 sq.ft./basal area per acre. An improvement thinning would be beneficial to increase the size and diameter (old growth characteristics) of the red & white pine in this stand. An improvement thinning would also provide additional sunlight to the forest floor to start initiating the natural regeneration of the white pine. Post sale scarification would also aid in the regeneration of the white pine. This stand received a light thinning back in 2007.

Woods roads are located within the main pine area and are used as hiking trails by the neighbors. Access to Hwy 47 is a short distance using town roads.
Northern Highland - American Legion State Forest
C15A Stands 1 & 18
Italy Bay Oak 99 Acres
Town of Woodruff, Oneida County, T39N-R7E Secs. 17, 20 & 21
NHAL - SF Master Plan: Mgmt. Area 5 - Big Arbor Vitae Loamy Hills - Forest Production

Legend
++ Section Corner
 Red Boat Landing
 Purple Campground
 Orange Powerline
 Blue Paved Bicycle Trail
 Dotted Woods Roads
 Red Snowmobile Trails
 Black Highways and Town Roads
 Red Oak Shelterwood Area
 Blue Lakes

Area 5 - Big Arbor Vitae Loamy Hills - Forest Production Area

Stand 1 (46 Acres) is comprised of a fair stocking of red oak small sawtimber and poletimber. Stand 1 originated in 1916 and has been thinned several times, in the past, with the most recent harvest taking place in 2007. This stand will undergo a shelterwood harvest to release advanced natural regeneration where present. If sufficient regeneration is not present then an initial shelterwood harvest will be conducted followed up with post sale scarification.

Stand 18 (53 Acres) is comprised of a good stocking of red oak large sawtimber over well stocked red oak seedlings. This stand originated in 1916 and had a shelterwood harvest conducted in 2014. This stand will undergo an overstory removal harvest to release the oak regeneration to full sunlight. Five to seven large oak trees will be left per acre for mast and green tree retention.

This area of the forest has high recreational use and is very visible to the public. Special care will be implemented to provide for the recreational concerns and aesthetic needs associated with the public using this area of the forest.

Access to Hwy 47 is a short distance using town roads and woods roads.
Area 5 - Big Arbor Vitae Loamy Hills - Forest Production Area

Stand 6 (18 acres) and Stand 16 (43 acres), of C16, are comprised of 102 year old stands of red oak. Stand 6 had an initial shelterwood harvest conducted in 2012 and since has regenerated back to oak, white pine and red maple. A shelterwood (overstory removal) harvest is being prescribed in which 5-10 oak per acre will be retained for green tree retention and mast production.

Stand 16 was last thinned in 1995, when all the shorter-lived species were harvested. At this time an initial first cut shelterwood harvest will be implemented in which 40-60% of the overall crown canopy will be retained of the largest best formed oak crop trees. Scarification will be recommended to aid in the natural regeneration of the oaks. These shelterwood harvests will help to maintain and increase the red oak component of this area.

Stand 19 (6 acres), of C17, is comprised of 107 year old black spruce and tamarack. The management goal would be to regenerate these species through patch clearcuts with green tree retention. These harvested areas will grow back by seeding in from reserve crop trees (group selection) that will be retained.

Stand 21 (30 acres), of C17, is a 101 year old stand of white birch with associated aspen, red maple, balsam fir poletimber and scattered red and white pine sawtimber. The goal here is to conduct a coppice with standards to regenerate the aspen and white birch through root and stump sprouting. Scarification will be required for white birch success. Pine and oak will be retained as green tree retention. This harvest will help maintain early successional forest types. Frozen ground restrictions will be required in the low ground areas.

Aesthetics will be addressed with sale design because this is a high use area of the State Forest with boat landings near the proposed sale area.
C17H – Stand 2 (176 acres): This stand is comprised of aspen with an origin year of 1976. Associated species include white birch, oak, maple and scattered sawlog red and white pine. A coppice with standards regeneration harvest will be conducted to maintain early successional aspen as the primary cover type.

C17H – Stand 3 (112 acres): This is a stand of sawlog red pine with a component of mature aspen. The aspen, white birch and maple will be designated for harvest, and the pine will be thinned to enhance their diameter growth.

C17H – Stand 9 (12 acres): This is a stand of small sawlog red pine with a component of spruce (~22 BA) in the poletimber size class. The stand was thinned in 2002. Since then the spruce has declined significantly and they will be cut before they are lost to mortality. Small, scattered pockets of red pine with higher basal area will be thinned.
Northern Highland - American Legion State Forest
C22A Stands 3, 4, 8, 16, 19 & 28
Hasbrook Landing 197 Acres
Town of Woodruff, Oneida County, T39N-R7E Secs. 26, 34 & 35
NHAL - SF Master Plan: Mgmt. Area 6 - Oneida Sandy Plains - Forest Production

Area 6 - Oneida Sandy Plains - Forest Production

Stands 3, 8 & 28 (155 Acres) are comprised of a medium stocking of red oak small sawtimber and poletimber. Stands 3 & 8 have a year of original of 1926. Stand 28 originated in 1913. These stands were both thinned in the past with the most recent thinning taking place in stands 3 & 8, in 2005. All three stands will undergo the first stage of a oak shelterwood harvest. In areas where advanced regeneration is already adequate a shelterwood release harvest will be initiated to release the regeneration. Larger diameter oak will be retained with 5-10 trees per acre for wildlife and aesthetic purposes.

Stand 4 (5 Acres) is comprised of well stocked northern hardwood and aspen poletimber. Most aspen and white birch will be removed along with select hardwood to improve the overall growth conditions for the remaining crop trees.

Stand 16 (22 Acres) is comprised of a well stocked stand of primarily aspen poletimber which originated in 1968. This stand will be regenerated using a simple coppice with standards harvest prescription. The goal is to maintain aspen as a strong component across the landscape.

Stand 19 (15 Acres) is comprised of large red and white pine sawtimber with a year of origin of 1904. The stand is well stocked and in need of a thinning to reduce basal areas to appropriate stocking levels for optimal growth and vigor. This stand was last thinned in 2005.

Snowmobile trails are located within the sale area and will be signed if logged during the winter. Oak wilt restrictions will be implemented. Class A hauling out to Hwy 47 is accessible.
Northern Highland - American Legion State Forest
C29A Stands 3, 4 & 6  C31A Stands 3 & 9
River Road Revisited 134 Acres
Town of Lake Tomahawk, Oneida County, T38N-R7E Sec. 1 & 2
NHAL - SF Master Plan: Mgmt. Area 6 - Oneida Sandy Plains - Forest Production

Legend
- Boat Landing
- Section Corner
- Powerline
- Woods Roads
- Snowmobile Trails
- Highways and Town Roads
- Aspen Regeneration Area
- Oak Regeneration Area
- Pine Thinning Area
- Lakes

Map produced by
Jim Woltman, DRT

Area 6 - Oneida Sandy Plains - Forest Production

Comp. 29 Stand 3 & Comp. 31 Stand 3 (74 Acres) are comprised of well stocked aspen poletimber with associated white birch, red maple, oak and pine. These stands originated in 1970. These stands will be regenerated using a simple coppice with standards harvest prescription. The goal is to maintain aspen as a strong component across the landscape. A majority of the oak, red pine and white pine will be retained along with some leave tree clumps.

Comp. 29 Stand 4 (31 Acres) is comprised of primarily scrub oak with a variety of shorter-lived aspen, birch, jack pine as well as red maple. The goal here will be to harvest all the shorter-lived species and a majority of the scrub oak to provide optimal sunlight to stimulate stump and root sprouting of the oak and aspen. At least 5-10 oak will be retained per acre for seed and mast production.

Comp. 29 Stand 6 & Comp. 31 Stand 9 (29 Acres) is comprised of large red and white pine sawtimber with associated aspen, white birch, maple and oak poletimber. No recent management has been conducted in either stand. These stands are well stocked and in need of a thinning to reduce basal areas to appropriate stocking levels for optimal growth and vigor.

Snowmobile trails are located within the sale area and will be signed if logged during the winter. Oak wilt restrictions will be implemented. Class A hauling out to Hwy 47 and CTH D is accessible.
Northern Highland - American Legion State Forest
Compartment 32H Stands 1, 2, 3, 6, & 9
McGinnis Creek - 242 acres
Town of Plum Lake, Vilas County, T42N R8E Sections 21, 22, 27 & 28
NHAL Master Plan: Area 3 - Vilas Sandy Plains North Forest Production &
Area 13 - Special Aquatic Native Community Area

Legend

- White Pine
- Oak
- White Birch
- Section Corners
- Gates
- Snowmobile Trails
- Town/County Roads
- Lakes
- Rivers/Creeks

STAND 1 (29 acres) is a 117 year old stand of white pine with a strong oak secondary. It was last thinned in 1990 and will be thinned again. All short-lived species will also be cut.

STAND 2 (50 acres) is a mixed white birch - oak stand of 1921 origin. It was last thinned in 1990. The remaining white birch and hardwood are largely declining and will be salvaged. Oak areas will be thinned to avoid release of maple saplings, except some of the oak overstory will be removed to release advanced white pine saplings. Aspen and maple regen pockets from the former cut will be avoided. Overall this will remain a mixed stand.

STAND 3 (38 acres) is a 1921 oak stand with very similar qualities and cutting history as stand 2, except a slightly greater component of oak. Same cutting prescription as stand 2.

STAND 6 (51 acres) is a 96 year old oak stand that will have an overstory removal to release the advanced oak and white pine understory. This stand was previously cut in 1998.

STAND 9 (32 acres) is a 97 year old oak stand last cut in 1998. It will be thinned again, except for some areas with advanced white pine saplings where the overstory will be removed. All maple will be cut.

STAND 21 (32 acres) is a 67 year old birch stand that will be regenerated. This stand is in the NCMA and some additional shorter-lived species will be left uncut to increase stand diversity and to provide seed. Longer lived healthy oak and pines will be favored where present. Active cavity trees and snags will also be left uncut as much as possible to provide for wildlife habitat.

The snowmobile trail will be posted if cutting occurs during winter.
Northern Highland - American Legion State Forest
Compartment 33H Stands 1, 6, 7, 9, & 17
Alva Lake - 269 acres
Town of Plum Lake, Vilas County, T42N R8E Sections 27, 33, & 34
NHAL Master Plan: Area 3 - Vilas Sandy Plains North Forest Production &
Area 8 - Lake Laura Loamy Hills Native Community Area

STAND 1 (29 acres) is an uneven aged northern hardwood stand last thinned in 1968. A single tree selection thinning with gaps will be implemented to increase stand structure and diversity and to improve stand health.

STAND 6 (71 acres) is a 97 year old oak stand with a northern hardwood secondary type. Most of this stand was last thinned in 1968. It will be thinned again, with some gaps created in opportune areas and some through removal of shorter-lived species.

STAND 7 (52 acres) is a hemlock stand with a northern hardwood secondary type last thinned in 1968. It will be thinned again, with some small gaps created in northern hardwood areas to encourage hemlock/yellow birch regeneration.

STAND 9 (93 acres) is 97 year old oak, heavily mixed with red maple, white birch, and balsam fir. The south end was last cut in 1966 and there is no cutting history for the north end. Oak and pine areas will be thinned to improve stand health and longevity. Maple and shorter-lived species will be cut to regenerate some areas of this type and to increase stand structure and diversity.

STAND 17 (24 acres) is a northern hardwood, oak, and balsam fir mixed stand. It is within the Partridge Lake Scenic Lake area and aesthetics will be the major focus of management. Healthy crowned, longer-lived species will be favored. The stand will overall be thinned, with some gaps in opportune areas to regenerate a mix of species.

The Native Community Management Area roughly covers the southern half of this sale. Additional shorter-lived species will be left uncut in this area to increase stand diversity and to provide seed. Active cavity trees and snags will also be left uncut as much as possible to provide for wildlife habitat.
Northern Highland - American Legion State Forest  
C37A Stands 1 & 8  
Bertland Road Aspen 39 Acres  
Town of Newbold, Oneida County, T38N-R7E Sec 31  
NHAL - SF Master Plan: Mgmt. Area 6 - Oneida Sandy Plains - Forest Production

Legend
+ Section Corner  
Boat Landing  
= Woods Roads  
| Highways and Town Roads  
Blue Area  
Red White Birch Area  
+- Rivers  
Blue Lakes

Scale: 4" = 1 Mile  
1:15,840

Area 6 - Oneida Sandy Plains - Forest Production

Stand 1 (18 Acres) is comprised of a mixed stand with decadent white birch as the primary timber type which originated in 1912. The goal in this stand is to regenerate the birch, aspen and balsam fir through a seed tree harvest leaving some scattered birch clumps as a seed source.

Stand 8 (21 Acres) is comprised of well stocked aspen pole timber with associated white birch, red maple and balsam fir. This stand originated in 1970. This stand will be regenerated using a simple coppice with standards harvest prescription. The goal is to maintain aspen as a strong component across the landscape.

Aesthetic and BMP concerns will be addressed along the streams and adjacent lakes. Timber mats may be required to access portions of the area. Permission will be required across a private MFL parcel, to the west of this pre-sold area, to gain access into these stands.
Northern Highland - American Legion State Forest
C41A Stands 8, 13, 14, 15 & 16
Illuminating Hardwoods 227 Acres
Town of Newbold, Oneida County, T39N-R7E Secs. 33 & 34
NHAL - SF Master Plan: Mgmt. Area 6 - Oneida Sandy Plains - Forest Production

Legend
+ Section Corner
--- Woods Roads
↓ Snowmobile Trails
↔ Highways & Town Roads
--- Northern Hardwood Area
--- Aspen Regeneration Area
--- Oak Shelterwood Area
--- Pine Thinning Area
--- Lakes

Scale: 4" = 1 Mile
1:15,840

Area 6 - Oneida Sandy Plains - Forest Production

Stand 14 (13 Acres) is comprised of a medium stocking of red oak large sawtimber over red oak poletimber. This stand originated in 1930. These stands were last thinned in 2008 and has advanced regeneration present. This stand will have a removal harvest completed to release the advanced regeneration. Larger diameter oak will be retained with 5-10 trees per acre for wildlife and aesthetic purposes.

Stands 8 & 13 (119 Acres) is comprised of well stocked northern hardwood with associaters, including white birch and aspen poletimber. Most aspen and white birch will be removed along with select hardwood to improve the overall growth conditions for the remaining crop trees.

Stand 15 (1 Acre) is comprised of well stocked red pine small sawtimber over well stocked red pine poletimber with a year of origin of 1961. This stand is in need of a thinning to reduce basal areas to appropriate stocking levels for optimal growth and vigor. This stand was last thinned 10 years ago.

Stand 16 (94 Acres) is comprised of a well stocked stand of primarily aspen poletimber which originated in 1970. This stand will be regenerated using a simple coppice with standards harvest prescription. The goal is to maintain aspen as a strong component across the landscape.

Snowmobile trails are located within the sale area and will be signed if logged during the winter. Oak wilt restrictions will be implemented. Class A hauling out to Hwy 47 is accessible.
Northern Highland - American Legion State Forest
C44A Stands 13, 15, 25, 26 & 27
Foxy Aspen 112 Acres
Town of Newbold, Oneida County, T38N-R7E Secs. 26, 34 & 35
NHAL - SF Master Plan: Mgmt. Area 6 - Oneida Sandy Plains - Forest Production

Stand 13 (31 Acres) is comprised of a well stocked stand of primarily aspen polelumber which originated in 1967. This stand will be regenerated using a simple coppice with standards harvest prescription. The goal is to maintain aspen as a strong component across the landscape.

Stand 15 & 25 (16 Acres) are comprised of a medium stocking of red pine polelumber. Stand 15 originated in 1966 & stand 25 originated in 1958. Stand 25 was last thinned in 2006. These stands will be thinned again to improve crown spacing and stand growth.

Stand 26 (48 Acres) is comprised of well stocked red oak polelumber with minor amounts of red oak sawtimber that originated, in 1920. This stand had received no treatments in the past. At this time the stand will be thinned by removing mostly shorter lived species and poor quality oak and pine. Aesthetics and the development of longer-lived tree species will be the primary objective within Fox Lake, which is designated as a Scenic Lake.

Stand 27 (17 Acres) is comprised of large red pine sawtimber over red pine polelumber with a year of origin of 1899. The stand is well stocked and in need of a thinning to reduce basal areas to appropriate stocking levels for optimal growth and vigor. This stand was last thinned in 2006.

The Mc Naughton ski trail is located within the sale area and aesthetics will be maintained near the trail. The trails will be rerouted, signed, and/or closed during the active seasons for safety concerns. Oak will restrictions will be implemented, within the oak type.
Northern Highland - American Legion State Forest
C45H Stands 5, 7, 8 & C8A Stands 16 & 17
Call Me Mamie 100 Acres
Town of Saint Germain, Vilas County, T40N-R8E Sec. 33
Town of Newbold, Oneida County, T39N-R8E Sec. 4
NHAL - SF Master Plan: Mgmt. Area 6 - Oneida Sandy Plains - Forest Production

Scale: 4" = 1 Mile
1:15,840

Legend
Gate
Section Corner
Woods Roads
Highways & Town Roads
Pine Thinning Area
Tamarack Area
Red Pine Plantation
Lakes

Area 6 - Oneida Sandy Plains - Forest Production Area
C8A Stand 17 & C45H Stand 5 (82 Acres) are comprised of well stocked white pine and red pine small sawtimber which originated in 1932. The stocking is somewhat variable with some clumpiness of dense pockets scattered throughout. This stand had been thinned before with the last thinning taking place in 2006. An improvement thinning would be beneficial to provide for optimal growing conditions.

C8A Stand 16 & C45H Stand 7 (8 Acres) is comprised of an overstocked red pine plantation that originated in 1962. This stand was last thinned in 2006. This stand will be thinned from below in the standard order of selection leaving the best crop trees behind at the appropriate stocking levels.

Stand 8 (10 acres) is comprised of 108 year old tamarack and black spruce poletimber. The management goal would be to regenerate these species through patch clearcuts with green tree retention clumps to serve as seed trees. These harvested areas will grow back by seeding in from reserve crop trees (group selection) that will remain, after the harvest. This harvest would need to take place during frozen ground conditions.

This sale area is near the end of a dead end private road. Access will need to be secured from the appropriate adjacent landowner to access the sale area and for ingress and egress through Chipmunk Lane.
The goals for the Oneida Sandy Plains Forest Production Area are to increase the presence and age of red and white pine, maintain aspen as a strong component across the landscape, expand the red oak type and maintain forested wetlands with a representation of multiple age classes of black spruce and tamarack, applying General Management Prescriptions.

The Aspen Regeneration Area, in stand 3, consists of 135 acres of 46 year old aspen that will be clear cut to regenerate this species by root sprouting. Once the aspen is harvested the sunloving aspen will vigorously sprout back from the root system with full sun exposure.

The Swamp Conifer Area, in stand 9, consists of 33 acres of 115 year old black spruce and tamarack that is ready to be rotated and regenerated. The management goal would be to regenerate these species through patch clearcuts with reserve patches of mature black spruce to serve as a seed source. These harvested areas will grow back naturally, after the harvest, by seeding in from the adjacent reserve crop leave trees.

Access to this area is primarily off Bass Lake Road. Frozen ground conditions will be required for harvesting in the forested wetlands. Biomass harvesting is not allowed on this sale area due to nutrient poor soils.
Area 6 - Oneida Sandy Plains - Forest Production

Stand 15 (38 Acres) is comprised of well stocked aspen polelumber with associated white birch, red maple, oak and pine. This stand originated in 1970. This stand will be regenerated using a simple coppice with standards harvest prescription. The goal is to maintain aspen as a strong component across the landscape. A majority of the oak, red pine and white pine will be retained along with green tree retention areas along County Hwy D and Bass Lake road for aesthetics.

Snowmobile trails are located within the sale area and will be signed if logged during the winter.
Northern Highland - American Legion State Forest
C51A Stand 12 & C52A Stands 4, 8, 19, 23 & 26
Rainbow Pot of Pine 84 Acres
Town of Newbold, Oneida County T39N-R8E Secs. 15, 16 & 21
Mgmt. Area 6 - Oneida Sandy Plains - Forest Production

Legend
+ Section Corner
--- Woods Roads
[ ] Highways and Town Roads
[ ] Pine Thinning Area
[ ] Lakes

Area 6 - Oneida Sandy Plains - Forest Production

C51 Stand 12 (28 Acres) is comprised of well stocked red pine small sawtimber over aspen saplings. This stand originated in 1966 and was previously thinned in 2008. This stand will be thinned again to improve health and growth rates of remaining crop trees.

C52 Stands 4, 23 & 26 (43 Acres) These three stands all originated in 1953. They are comprised of well stocked red and white pine small sawtimber and poletimber. All three stands have been thinned in the past at least once. These stands will be thinned again to improve crown spacing and stand growth.

C52 Stand 8 (5 Acres) is comprised of an overstocked stand of white pine small sawtimber over white pine poletimber. There is no record of any recent forest management in this stand that originated in 1950. This stand is now ready for a thinning to reduce basal areas to appropriate stocking levels for optimal growth and vigor.

C52 Stand 19 (8 Acres) is comprised of very well stocked white pine small sawtimber over a poor stocking of red pine small sawtimber. This stand originated in 1946 and was last thinned in 2010. This stand will be thinned again to improve crown spacing and provide optimal growing conditions for residual crop trees.

The Rainbow Flowage lies within the area and aesthetics will be maintained with a significant number of residual red and white pine trees following the thinning.
Legend

- Oak
- White Pine
- Section Corners
- Woods Roads
- Town/County Roads
- Lakes

STAND 2 (16 acres) is 97 year old oak with a northern hardwood secondary type. The oak is healthy and of good quality, sugar maple is fair to poor and is mostly suppressed under the oak. The oak will be thinned for a first time and most maple and other short-lived species will be cut. Some healthy crowned better quality sugar maple will be retained for diversity.

STAND 3 (4 acres) is roughly a 30 year old white pine and balsam fir stand that naturally seeded into an old opening. The pine will be thinned and short-lived species will be removed to favor the pine.

STAND 5 (36 acres) is a mixed oak stand within the Rustic Road Scenic Mgmt Area. This 200' strip will be managed for aesthetic appeal by favoring the longer-lived oak, pine, and sugar maple. Most shorter-lived species will be removed, except where needed to be left along Hwy K for aesthetics.

STAND 6 (35 acres) is a mixed oak stand with strong secondary types of balsam fir, white birch, and red maple. Oak areas will be thinned and the maple and shorter-lived species will be regenerated. There are also scattered white pines in places that will be thinned and largely retained.

There are old access roads present, but they will need to be re-opened. Some additional landings and stub roads may be necessary for accessing some areas.
Northern Highland - American Legion State Forest
C62A Stand 2
Whispering Pines 77 Acres
Town of Sugar Camp, Oneida County, T39N-R9E Sec.12
NHAL - SF Master Plan: Mgmt. Area 6 - Oneida Sandy Plains - Forest Production

Scale: 4" = 1 Mile
1:15,840

Area 6 - Oneida Sandy Plains - Forest Production Area

Stand P2 (77 Acres) is comprised of a well stocked red pine plantation that originated in 1970. Basal area is somewhat variable but overall a thinning would be beneficial at this time. The stand has been thinned in the past. A thinning would improve the spacing of crop trees allowing for optimal growth and vigor.

There is a snowmobile trail that runs through a portion of the sale. The trail will be signed and kept snow covered if harvested during the winter. There is good access to CTH H.
Stand 1 (67 acres) is an aspen stand of 1969 origin. The silviculture will be coppice with standards. The areas of dense pine will be marked for thinning.

Stand 2 (17 acres) is an oak stand that was previously private land and acquired by state forest in 2015. It appears to have had some timber management by the previous owners. The understory regeneration looks good and will now have the overstory removed. Biomass harvest allowed in this stand only.

Stand 4 (9 acres) is a pine plantation of 1984 origin. This stand will receive a first thinning of designated, unmarked rows.
Area 4 - Vilas Sandy Plains Central - Forest Production Area

Stand 1 (76 Acres) is comprised of well stocked red pine small sawtimber over white pine pole timber with a year of origin of 1920. Overall basal area is variable with dense clumpy patches and other portions of the stand with lower stocking levels. There are significant oak seedlings and saplings throughout the stand understory. The stand was last thinned in 2004 and is in need of a thinning to reduce basal areas to appropriate stocking levels for optimal growth and vigor.

Little Cloud Lake lies north of the sale area. Little Cloud Lake is designated as a wilderness lake and no harvesting will take place within 400 feet of this lake.
Area 6 - Oneida Sandy Plains - Forest Production

Stand 11 (113 Acres) is comprised of a well stocked stand of primarily aspen polelumber which originated in 1968. This stand is part of a much larger aspen type with the same year of origin. A portion of this aspen type will be harvested now for age class diversity and for aesthetics. This stand will be regenerated using a simple coppice with standards harvest prescription. The goal is to maintain aspen as a strong component across the landscape.

This area of the State Forest is rather remote with hunting a primary attraction in the area. Creating age class diversity within the aspen type will be beneficial to small and big game hunters. There is a good network of woods roads and access to Stone Lake Road.

Legend

+ Section Corner
- - - Woods Roads
- - Highways and Town Roads
- - Aspen Regeneration Area
C81H – Stand 2 (13 acres): This stand is comprised of aspen with an origin year of 1973. Associated species include white birch, red oak, and scattered sawlog red and white pine. A coppice with standards regeneration harvest will be conducted to maintain early successional aspen as the primary cover type. A narrow strip of sawlog oak occurs along CTH N and will undergo a shelterwood harvest to release understory white pine.

C101H – Stand 1 (41 acres): Similar to stand 81-2, this originated in 1972. It too will undergo a coppice with standards harvest to regenerate and maintain the aspen timber type.
Northern Highland - American Legion State Forest
Compartment 82H Stands 2, 5, & 8; Compartment 100H Stands 5, 9, & 14
Blueberry Lake - 268 acres
Town of Plum Lake, Vilas County, T41N R7E Sections 23, 24, & 25
NHAL Master Plan: Area 4 - Vilas Sandy Plains Central Forest Production Area
Blueberry Lake - Scenic Lake Overlay Zone

This map is not a survey of the actual boundary of any property this map depicts.

Legend
- Aspen
- Red Pine
- Oak
- Section Corners
- Gates
- Boat Landings
- Trails
- Snowmobile Trails
- Town/County Roads
- Lakes

C 82 STAND 2 (69 acres) is a 57 year old stand of aspen mixed with a variety of other species. Aspen and other short-lived species will be regenerated while red and white pine areas will be thinned to promote this type.

C 82 STAND 5 (55 acres) is a 98 year old red pine stand that will be thinned for a second or third time.

C 82 STAND 8 (17 acres) is a 100 year old oak stand of good quality. The oak will be thinned and most short-lived species will be removed. Most red and white pine will be retained within this stand.

C 100 STAND 5 (34 acres) is a 55 year old stand of aspen that will be regenerated. Most red and white pine will be retained.

C 100 STAND 9 (53 acres) is a 100 year old red pine plantation. It was last thinned in 1997 and will be thinned again to improve crown spacing and stand growth.

C 100 STAND 14 (40 acres) is a 90 year old mixed oak and birch stand within the Blueberry Lake Scenic Lake Overlay. Oak will be thinned and most shorter-lived species will be regenerated, except for some that will be retained for aesthetics. Pockets of red/white pine are also present and will be thinned. Wisconsin's BMP's for water quality will be implemented along the lake and will likely reduce some of the stand acreage.

The Razorback ski trails as well as hiking/biking trails and snowmobile trails are present within this sale. Aesthetics will be maintained near the trails by thinning most of the red/white pine and oak, as well as some additional trees in places. The trails will be rerouted, signed, and/or closed during the active seasons for safety concerns.
Northern Highland - American Legion State Forest
C82H Stand 12 & C115H Stands 4 & 7
Reactive Red Pine 110 Acres
Town of Plum Lake, Vilas County, T41N-R7E Secs. 25, 26 & 27
NHAL - SF Master Plan: Mgmt. Area 4 - Vilas Sandy Plains Central - Forest Production

Area 4 - Vilas Sandy Plains Central - Forest Production
C82H Stand 12 & C115H Stand 4 (71 Acres) is comprised of well stocked white pine and red pine small sawtimber with an understory of oak and aspen seedlings and saplings. Stand 4 originated in 1910 and stand 12 originated in 1918. The stocking is somewhat variable, in these stands, with some clumpiness of dense pockets of pine scattered throughout. This stand had been thinned before with the main portions of these stands being thinned back in 2006. An improvement thinning would be beneficial to provide for optimal growing conditions.

C115H Stand 7 (39 Acres) is a well stocked red pine plantation that originated in 1940. The stand currently is comprised of red pine small sawtimber over red pine poletimber. This stand was last thinned in 2006. This stand will be thinned from below in the standard order of selection leaving the best crop trees behind at the appropriate stocking levels.

This area of the forest has high recreational use. Bike trails, ski trails and snowmobile trails are all located within the sale area. Razorback Ridges, the local bike & ski trail system, which is operated by the Sayner Lions will be consulted when establishing this sale to gain feedback on recreational use and considerations for their trail system. The residual red pine throughout the sale area will provide for the aesthetics along the trail. If needed trails maybe re-routed or closed during the active seasons for safety concerns.

Legend
- Section Corner
- Paved Bike Trail
- Recreational Trails
- Woods Roads
- Snowmobile Trails
- Highways and Town Roads
- Pine Thinning Area
- Lakes

Map produced by
Jim Weber, 5/18
Northern Highland - American Legion State Forest
C85H Stands 1, 8, 12, 15, 21
Escanaba East - 253 Acres
Town of Plum Lake
T41N R7E Sec 1, T42N R7E Sec 36
NHAL Master Plan: Area 4 - Vilas Sandy Plains Central - Forest Production
Area 12 - Mixed Forest - Native Community

Legend
- Survey Marker
+ Section Corner
--- Recreational Trail
--- Snowmobile Trails
--- Woods Roads
--- Highways and Town Roads
- Maple & Birch
- Pine
- Black Spruce
- White Spruce
- Oak
- Lakes

Stand 1 (164 acres) is a red maple and white birch stand of 1954 origin. It was thinned in 1991 and had the aspen and balsam fir harvested. It now appears to be a two-aged stand. The overstory of maple and birch will be removed to let the new age class grow. Part of C87H stand 3 will be included in this harvest. The west side of the stand contains a higher basal area of red oak and sugar maple. This part of the stand will be split out and receive a thinning.

Stand 8 (33 acres) is a natural white pine and red pine stand with an origin year of 1921. The areas of dense pine will be thinned.

Stand 12 (6 acres) is a black spruce stand. Only the outer edge of the stand is merchantable and proposed for harvest.

Stand 15 (19 acres) is a white birch stand of 1910 origin. Unique silviculture will be applied to maintain aesthetics around the recreational trail.

Stand 21 (31 acres) is an oak stand around a research lake. This lake was previously a designated wild lake and has no known history of management. This stand will be thinned by 1/3rd of the basal area. The only NCA stand in proposed sale.
C92H – Stand 4 (95 acres): This is a well stocked 108 year old stand of poletimber tamarack with a component of black spruce. The objective is to regenerate the tamarack which will be accomplished by harvesting strips between 2 to 3 chains wide.

C92H – Stand 7 (86 acres): This stand is comprised mostly of aspen with an origin year of 1966. Associated species include red maple, white birch, red oak, and scattered sawlog red and white pine. A coppice with standards regeneration harvest will be conducted to maintain early successional aspen as the primary cover type. Pockets of hardwoods will be retained for green tree retention and stand diversity.
Northern Highland - American Legion State Forest
C100H Stands 16 & 17; C115H Stands 1 & 2
Proactive Poppel 381 Acres
Town of Plum Lake, Vilas County, T41N-R7E Secs. 22, 23, 26 & 27
NHAL - SF Master Plan: Mgmt. Area 4 - Vilas Sandy Plains Central - Forest Production

Legend
+ Section Corner
+: Paved Bike Trail
-: Recreational Trails
-.-- Woods Roads
-: Snowmobile Trails
--- Highways and Town Roads
-: Oak Shelterwood Area
-: Aspen Regeneration Area
-: Lakes

Area 4 - Vilas Sandy Plains Central - Forest Production
C100 St.16 & C115 St.1 (229 Acres) are comprised of a medium stocking of red oak small sawtimber and poletimber. These stands all originated in 1916. These stands were both thinned in the past with the most recent thinning taking place in 2007. These oak stands will undergo the first stage of a oak shelterwood harvest in which 40-60% of the canopy will be harvested to naturally regenerate the oak. In areas where advanced regeneration is already adequate a shelterwood release harvest will be initiated to release the regeneration. Larger diameter oak will be retained with 5-10 trees per acre for wildlife and aesthetic purposes.

C100 St. 17 & C115 St. 2 (152 Acres) are comprised of well stocked aspen poletimber which originated in 1962 and 1965. These stands will be regenerated using a simple coppice with standards harvest prescription. The goal is to maintain aspen as a strong component across the landscape.

This area of the forest has high recreational use. Bike trails, ski trails and snowmobile trails are all located within the sale area. Razorback Ridges, the local bike & ski trail system, which is operated by the Sayner Lions will be consulted when establishing this sale to gain feedback on recreational use and considerations for their trail system. Aesthetics will also be addressed with sale design while providing sustainable forestry management practices. Oak wilt restrictions will be required in the oak areas. There is a good network of roads for hauling.
**Legend**

- **Section Corner**
- **Woods Roads**
- **Snowmobile Trails**
- **Highways and Town Roads**
- **Oak Regeneration Area**
- **Pine Thinning Area**
- **Lakes**

---

**Area 5 - Big Arbor Vitae Loamy Hills - Forest Production**

**Area 11 - Red & White Pines - Native Community**

C7 Stand 7 (62 Acres) is comprised of three separate patches of red pine large sawtimber over red pine small sawtimber with a year of origin in 1911. This entire stand was last thinned in 2009 and is very well stocked at this time. The 29 acre patch of pine just south of State Hwy 70 lies in Native Community Mgt. This patch of pine will be marked similar to the other two patches except all snags and den trees will be maintained. The goal here is also the development of old growth characteristics and future coarse woody debris. The other two patches, lying in the Forest Production Area, will be marked for health, vigor and the production of quality forest products.

C108 Stand 8 (31 Acres) is comprised of a fair stocked stand of red oak small sawtimber over well established oak and white pine seedlings. This stand consists of 6 separate patches which had an initial first-stage shelterwood harvest in 2013. This stand will undergo an overstory removal harvest to release the oak and white pine regeneration. Five to seven large oak trees will be left per acre for mast and green tree retention.

There is a good network of woods roads and a snowmobile trail which runs through a portion of the sale. These routes allow direct access to Hwy 70. The snowmobile trail will be signed and remain snow covered if logged in the winter.
Northern Highland - American Legion State Forest
C112H Stands 3, 6, 10 & 12
Rossy Oak 278 Acres
Town of Arbor Vitae, Vilas County, T40N-R7E Secs. 9, 10 & 15
NHAL - SF Master Plan: Mgmt. Area 12 - Mixed Forest - Native Community

Area 12 - Mixed Forest - Native Community

Stand 3 (25 Acres) is comprised of well stocked hemlock small sawtimber and white pine large sawtimber which originated in 1815. This stand will be thinned from below to enhance and maintain old growth characteristics while maintaining stand health and vigor. Canopy gaps will be incorporated to naturally regenerate the hemlock and white pine where opportunities present themselves. Small scattered pockets may be left (skipped) to provide additional snags and coarse woody debris.

Stands 6 & 12 (233 Acres) are comprised of well stocked oak sawtimber and northern hardwood and oak poletimber. There is no previously known management in these stands. These stands will be selectively marked with a variable residual basal area to promote and enhance the development of a mixed forest dominated by old trees, numerous standing snags, large amounts of coarse woody debris, and an age diversity of trees. Canopy gaps will be incorporated to regenerate species such as yellow birch, basswood, aspen and oak regeneration for species diversity. Approximately 1/3 of the trees will be harvested.

Stand 10 (20 Acres) is comprised of well stocked white pine poletimber with associated aspen poletimber which originated in 1920. The stand will undergo an intermediate thinning to remove the shorter-lived species and thin the remaining white pine. This thinning operation will maintain the growth and vigor of the remaining stems and allow for the development of old-growth characteristics.

Ross Lake is adjacent to the area and BMPs and aesthetics will be maintained near this watershed. Witches Lake road is designated as Class "B" for hauling. The Town of Arbor Vitae has agreed to let the State Forest cross this road to access the Trilby by-pass for hauling timber. Oak wilt restrictions will be implemented as oak wilt is present within this compartment.
Stand 17 (67 acres) is an oak stand of 1912 origin. The stand was thinned in 2004. The stand will receive a shelterwood harvest to regenerate the oak and white pine.
Area 3 – Vilas Sandy Plains North – Forest Production

Stand 118-9 (40 acres) is a 62-year old small sawlog red pine plantation. It was last thinned in 2001. It will receive another improvement thinning to maintain the growth and vigor within the stand. Current basal area is at 160 square feet.

Stand 118-12 (70 acres) is a 102-year old natural origin large sawlog red and white pine stand. It was also last thinned in 2001. It will receive another improvement thinning, likely the last it will need before rotation. Current basal area is at 190 square feet.

Stand 128-10 (70 acres) is a 79-year old large sawlog red pine plantation. It was last thinned in 2005. It will also receive another improvement thinning to increase the growth and vigor of the stand. Basal area in this stand is much more variable than in the other stands. While the average is at 140 square feet, some spots were as high as 200. Like all the stands in this proposed sale, current growth ring analysis revealed that all growth response from the previous thinnings has since ceased.

There are a few scattered stems of merchantable northern pin oak and aspen in these stands that will be retained for species diversity. The red and white pine will be marked for removal to meet stand objectives. No other tree species will be harvested.

The sale area is approved for biomass harvest. Aesthetics should not be a major issue, given the nature of the harvest is only a thinning. There will be some recreation considerations, mainly with the presence of the snowmobile trails.
C119H – Stand 5 (165 acres): This stand is comprised of aspen with an origin year of 1972. Associated species include white birch, red oak, and scattered sawlog red and white pine. This proposed sale will encompass about one-half of the original stand and create a mosaic of different aged stands and greater variability in the boundaries between those stands. A coppice with standards regeneration harvest will be conducted to maintain early successional aspen as the primary cover type.

The Lumberjack Recreational Trail loops throughout this stand, and it will provide access to the whole sale area. Due to this sales remote location cutting will only take place during summer or fall.
C126H – Stand P15 (26 acres): Red pine plantation / year of origin 1964. These three red pine plantations are each in the small sawlog size class. Stand 6 has more scattered white and jack pine mixed in within the stand, and even they amount to less than 5% of the stocking. The prescription will be a free thinning, with the intent to reduce the stocking level to promote the growth and vigor of the remaining crop trees.

C126H – Stand 11 (23 acres): This stand is typed as Grass, but still contains a large number of scattered, open grown white pine. The prescription will be to cut all tree stems, with the goal of replanting the stand to pine. The area immediately north of the airport will remain in grass to meet FAA airport vegetation management guidelines for aircraft safety.
C137H-Stand 7 (92 Acres): This area is composed of a sawlog sized oak stand with a year of origin of 1921. The stand was thinned in 2009. There is advanced desired regeneration of white pine and red oak at varied densities throughout the stand. A shelterwood harvest will be conducted to encourage the development of additional regeneration and to release the seedlings and saplings already present.

C137H-Stand 15 (23 Acres): This area is composed of a sawlog white pine stand with a year of origin of 1901. The stand was last thinned in 2009. An intermediate thin is proposed in this stand to maintain the growth and vigor of the selected crop trees.

A seasonal oak wilt restriction will be implemented in the oak areas. Aesthetic concerns along the town road will be lessened by a significant overstory following harvest and slash restrictions along the town road. Recreational concerns are minimal as no designated trails run through the area.
Northern Highland - American Legion State Forest
C151H Stands 3, 5, 15
North Creek & Hwy M - 93 Acres
Town of Boulder Junction
T42N R7E Sec 29, 30
NHAL Master Plan: Area 3 - Vilas Sandy Plains North - Forest Production

Legend

Survey Marker
Section Corner
Paved Bike Trail
Snowmobile Trails
Woods Roads
Highways and Town Roads
Tamarack
Red Pine
Red Pine 1st thin
Lakes

Stand 3 (26 acres) is a tamarack stand of 1949 origin. Only the outer edges of the stand are proposed for harvest.

Stand 5 (64 acres) is a red pine stand of 1918 origin. Seventeen acres were thinned in 2007. Red pine will be thinned following the stocking chart. Mature jack pine on the north side will be harvested.

Stand 15 (3 acres) is a red pine stand of 1982 origin. This stand will receive a first thinning of marked rows.
Northern Highland - American Legion State Forest
C168H Stands 1, 2 & 7
Vandercooked 156 Acres
Town of Arbor Vitae, Vilas County, T40N-R6E Sec 1;
T40N-R7E Sec 6; T41N-R6E Sec. 36
Town of Boulder Junction, Vilas County, T41N-R7E Sec. 31
NHAL - SF Master Plan: Mgmt. Area 5 - Big Arbor Vitae Loamy Hills - Forest Production

Legend

- Section Corner
- Boat Landing
- Powerline
- Woods Roads
- Snowmobile Trails
- Highways and Town Roads
- Oak Shelterwood Area
- Marked Hardwood Area
- Pine Thinning Area
- Lakes

Area 5 - Big Arbor Vitae Loamy Hills - Forest Production Area

Stand 1 (90 Acres) is comprised of small sawlog sized red oak over well established oak seedlings. Stand 1 originated in 1924 and underwent an initial shelterwood harvest in 2008. This stand will undergo an overstory removal harvest to release the oak regeneration, of the 2008 harvest, to full sunlight. Five to seven large oak trees will be left per acre for mast and green tree retention.

Stand 2 (63 Acres) is comprised of a good stocking of northern hardwood polelumber and sawtimber. This stand was last thinned in 2008 when it was classified as an NCA. Since its reclassification this stand is now ready for another entry. At this time most of the shorter-lived species will be harvested along with thinning the oak and hardwoods.

Stand 7 (3 Acres) is comprised of well stocked red pine small sawtimber over red pine polelumber with a year of origin of 1938. The stand was last thinned in 2008 and is in need of a thinning to reduce basal areas to appropriate stocking levels for optimal growth and vigor.

There is a good network of roads and direct access to Hwy M & Hwy 51 for hauling. Aesthetics are a concern along Hwy M and Vandercook Lake and will be addressed with sale design.
C170H Stand 2 & C181H Stand 6 (63 acres) are both oak and aspen stands. 1/3rd is in Forest Production and 2/3rds are in the Special Aquatic Native Community Area which is the Day Lake State Natural Area. Goals for the Day Lake site are to manage the uplands for a variety of long-lived tree species and age classes, and convert early successional forest types to long-lived pine and oak. The cutting prescription will be to harvest the early successional species and thin the remaining trees. Aesthetic management will be incorporated around the lake shore, especially near the boat landing and campsites.

Stand 8 (4 acres) is a pine stand of 1901 origin. The early successional species will be harvested and the pine will be thinned.
Stand 1 (36 acres) is an aspen stand. The portions of stand 1 proposed for harvest were previously private land and were acquired by the state forest in 1979 and 1997. These stands have no known history of forest management. The poor quality aspen will be harvested to let the understory of pine grow. The areas of dense, mature pine will be thinned.

Stand 9 (29 acres) is an oak stand of 1914 origin. This stand received a shelterwood harvest in 2010. The understory is well stocked with oak and pine regeneration and will now have the overstory removed.
Area 3 - Vilas Sandy Plains North - Forest Production Area

Stands 3, 9 & 17 (266 Acres) are comprised of well stocked red oak small sawtimber and poletimber. These stands all originated in 1915 and have been thinned in the past with the most recent thinning taking place, in stands 9 & 17, back in 2007. All three stands will undergo the first stage of a oak shelterwood harvest to regenerate the oak. In areas where advanced regeneration is already adequate a shelterwood release harvest will be initiated to release that regeneration to full sunlight. In those areas 5-7 larger diameter red oak trees per acre of red oak will be maintained for green tree retention and mast production.

Stand 8 (12 Acres) is comprised of a good stocking of northern hardwood and oak small sawtimber. This stand was last thinned in 2007. This stand will be selectively marked to favor the best quality oak and hardwood crop trees.

There is a good network of roads in the area with direct access to Hwy 51 via Vilhega road and woods trails. Aesthetics will be maintained along Vilhega road with residual leave trees. Aesthetics will be maintained along Hwy 51 as the WDOT row will provide a vegetative screen adjacent to the State Forest harvesting.
C192H – Stand 1 (85 Acres): This stand is comprised of aspen with an origin year of 1973. Associated species include white birch, red oak, and scattered sawlog red and white pine. This proposed sale will encompass about one-half of the original stand and create a mosaic of different aged stands and greater variability in the boundaries between those stands. A coppice with standards regeneration harvest will be conducted to maintain early successional aspen as the primary cover type.

C192H – Stand 10 (63 Acres): This is a 97 year old large sawlog oak stand, growing on the shores of Upper Gresham Lake. Secondary species include red and white pine, red maple, white birch and bigtooth aspen. This sale will harvest the overmature white birch and aspen, which are already declining. The oak will be thinned, favoring those with better form and crowns. An understory cohort of advanced regeneration comprising of white pine and red oak is present and awaiting release.
The objective for this area is to increase red and white pine as a dominant community type, maintain aspen as a strong component in a mixed stand, and manage for current levels of red oak, white birch and jack pine. Biomass harvest is not suitable for this sale.

In all stands established for harvest, select trees that are otherwise designated for removal will be green marked for retention. These residual trees are being kept as a seed source, potential cavity or den tree, or future snag tree.

Stand 8 was part of timber sale #256H and stands 32, 33 and the north part of 21 were part of timber sale #348H. Stands 14, 28 and the south part of stand 21 were part of timber sale #483H. Stand 8 is 55 acres of 45-50 year-old stand of aspen with a strong component of white pine (+/- 40 ft² BA). The aspen, white birch and balsam fir will be cut. Select pine will be marked to remove suppressed and poorly formed trees. Part of this stand is an island in a krig, which will be accessible only during frozen ground conditions.

Stand 14 is a 13 acre small sawtimber red pine plantation at 170 ft² of basal area. It will be thinned to about 120 ft² of basal area.

Stand 28 is 8 acres of understocked poletimber stand of poor quality red maple. The soil is sandy and not conducive to growing good quality maple; therefore this stand will be clearcut and converted to jack pine.

Stand 30 is a large sawlog white pine stand with 198 ft² of basal area. White birch is a large component (28 ft²) of the stand. This stand contains 28 acres. The white and red pine will be thinned, and the white birch and red maple designated for removal.

Stand 18 is 38 acres of 63-year old white birch with a component of poletimber balsam fir. Clumps of birch will be marked throughout the stand to provide seed for the next stand, and the remaining birch and fir will all be cut. If the stand does not regenerate from seed and stump sprouts to white birch, it will be converted to jack pine.

Stands 21 (14 acres), 32 (8 acres) and 33 (7 acres) are 111-year old red oak, averaging 91 ft² of basal area. Stands 21 is typed as large sawlog, and stands 32 and 33 are small sawlog. Stand 32 differs by containing a significant amount of white birch. The understory of these stands contains over 800 red oak seedlings per acre. This will be an initial shelterwood harvest in order to release these seedlings. The target crown closure is 40%.
Northern Highland - American Legion State Forest
C196H Stands 8, 14, 15, 18
Maple Lake East - 76 Acres
Town of Boulder Junction
T41N R6E Sec 3, 10
NHAL Master Plan: Area 3 - Vilas Sandy Plains North - Forest Production

Stand 8 (39 acres) is an oak stand of 1923 origin. This stand will receive a shelterwood harvest.

Stand 14 (8 acres) is a red pine stand. Only the portion along Keego road is proposed for a thinning.

Stand 15 (4 acres) is a white birch stand. This stand will be managed with the adjacent scenic lake zone.

Stand 18 (25 acres) is scenic lake zone around Maple Lake. The stand is a mix of early successional white birch, red maple and aspen with scattered pine and oak. The timber sale will promote longer-lived species in the scenic lake zone.
C213H – Stand 2 (9 acres): This is a 103 year old sawlog red oak stand. The stand will be thinned at this time to favor growth onto the stems of the remaining trees in preparation of a shelterwood harvest in 10 to 15 years.

C213H – Stand 3 (20 acres): This is a white pine pole timber stand with a BA of 160 square feet. The origin year is 1932. This stand will be thinned to release the residual crowns and promote diameter growth of the remaining trees.

C213H – Stand 12 (270 acres): This stand is comprised of aspen with an origin year of 1973. Associated species include white birch and red maple. This proposed sale will encompass about one-third of the original stand and create a mosaic of different aged stands and greater variability in the boundaries between those stands. A coppice with standards regeneration harvest will be conducted to maintain early successional aspen as the primary cover type. Scattered mature red and white pine also will be selected for harvest.

A snowmobile trail runs near the sale but due to the remote area this proposed sale is located it will only be harvested during snow free conditions.
Northern Highland – American Legion State Forest
C257H Stand 11
Powell Aspen 109 acres
Town of Sherman, Iron County
T42N R4E Sec. 25 & 26
NHAL – SF Master Plan: Mgmt. Area 2 – Manitowish Peatlands – Forest Production

Legend

+ Section Corner
--- Woods Roads
--- Snowmobile Trails
--- Powell Rec Trail
--- Highways and Town Roads
Aspen Stand
Lakes

C257H – Stand 11 (109 acres): This stand is comprised of aspen with an origin year of 1974. Associated species include white birch and red maple. This proposed sale will encompass about one-half of the original stand and create a mosaic of different aged stands and greater variability in the boundaries between those stands. A coppice with standards regeneration harvest will be conducted to maintain early successional aspen as the primary cover type.

The Powell Recreational Trail loops throughout this stand, and it will provide access to a significant part of the sale area.
STAND 2 (78 acres) is an 85 year old natural stand of red and white pine with a mix of other species. Much of the stand was last thinned in 1985, except for the later acquired parcel to the east. Short-lived species were removed in the 1985 cut, except for the strips left along the highway. This stand will be thinned again and most short-lived species leftover from the previous sale will be cut.

STAND 6 (13 acres) is a 31 year old red pine plantation that is ready for a first thinning. Every third row will be cut to improve stand health and to allow equipment access for future thinnings.

The snowmobile trail will be posted if cutting occurs near the trail in winter. Aesthetics along the roads and trails should be minimized with ample amount of pine residual throughout most areas. Some areas of this sale will require frozen ground due to access across wetlands.
Objectives for Area 2 are to encourage forest management practices and the production of forest products that sustainably meet the needs of current generations while providing adequate resources to meet the needs of the future. Maintain aspen stands using General Management Prescriptions.

Stands 1 and 7 (35 acres) are aspen stands. Silviculture is coppice with standards to regenerate aspen. Biomass harvest approved in aspen stands.

Objectives for Area 9 are to increase the age diversity, composition, and the patch size of stands within the forested area, emphasizing hemlock, white pine, sugar maple, yellow birch and basswood. Increase the extent of white pine. Establish and maintain large amounts of coarse woody debris, numerous standing dead snags, and an age diversity of trees.

Stand 14 (116 acres) is a hemlock and northern hardwood stand. Single-tree selection with gaps to promote tree age diversity and stand structural diversity. Areas of dense hemlock regeneration will be lightly thinned or avoided to protect the hemlock saplings.

Biomass harvest not approved in Native Community Area.

Access off of Cedar Lake Road and Hwy J to woods roads. Cedar Lake Rd is used as a snowmobile trail in the winter months. The trails will be kept free of debris and in usable condition if harvesting occurs in winter.
C288H – Stand 1 (68 acres): This stand is comprised of aspen with an origin year of 1968. Associated species include white birch and red maple and sawlog red and white pine. A coppice with standards regeneration harvest will be conducted to maintain early successional aspen as the primary cover type.

C288H – Stand 2 (119 acres): This is a stand dominated by black spruce and with widely scattered tamarack. The stand is growing on a solid bed of sphagnum. The average diameter decreases the further south and the closer it gets to Little Bear Creek. The portions of the stand that are operable will be strip clearcut in bands 2 to 3 chains wide, with plans to enter the stand 2 more times to complete the regeneration harvest.

Biomass harvest is approved for the aspen stand. A snowmobile trail runs along the north...
Objectives for this Management Area are to develop a diversity of ages and stand sizes for aspen, white birch and northern hardwoods. Objectives are also to increase the northern hardwood component and presence of conifers in mixed forest stands. Stands of swamp hardwoods will be evaluated for sale potential.

Stand 1 is a mature northern hardwood stand. The northern hardwood will be selectively thinned. Yellow birch will be promoted for release and other hardwoods and conifers will remain throughout for diversity. Because this stand borders the Presque Isle River and future recreational trails, modifications will be made to address the aesthetics of the harvest. Stands 2, 3 and 7 are 68 year old swamp hardwood stands, consisting of black ash, aspen and fir. These will be managed to regenerate the aspen, fir and spruce, and promote small swamp hardwoods. Most large ash will be harvested to remove prior to EAB potential mortality.

Stand 4 is a 68 year old aspen stand with associated fir, red maple and sugar maple. This stand will be harvested to regenerate the existing species mix. Harvest will be clear cut with reserves. Aesthetics concerns will modify all sale activity adjacent Town Park trail system. Harvest will also require frozen ground conditions because of heavy soils and a high water table and swamp areas.

Biomass harvest is approved as soils are appropriate. Access is off Town Roads to portions of this area. Private land access is also required for portions of this sale. The roads will need to be improved for harvest activity.