



# Compartment Review Presentation

## Pigeon River Country Forest Management Unit

Compartment 53035

Entry Year 2026

Acreage: 1,914

County: Cheboygan

Management Area: Wolverine Moraines

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**Stand Examiner:** Joyanne Mittig

### Legal Description:

T32N - R01W, Sections 10, 11, and 12

### Identified Planning Goals:

Maintain current species mix and apply appropriate management techniques to mature stands of timber that are in need of treatment.

### Soil and topography:

In general this compartment is gently rolling, however, some steeper hills are found in the hardwood areas of sections 11 and 12. The Pigeon River flows through a steep sided valley in the western-most portion of section 10.

The predominate soil type in the hardwood area of sections 11 and 12 is Leelanau loamy sand. Section 10 and the west portion of section 11 are dominated by Grayling and Rubicon sands. Peats and mucks are found along the Pigeon River and around Hardwood Lake.

### Ownership Patterns, Development, and Land Use in and Around the Compartment:

Solid state ownership, both within and around the compartment.

### Unique Natural Features:

There are documented occurrences of Hill's thistle, Wood Turtle, Little Brown Bat, and Red-shouldered Hawk within this compartment. The Pigeon River and two sinkhole lakes, North and South Twin Lakes, are located within section 10 of this compartment.

### Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

### Special Management Designations or Considerations:

The Pigeon River is a state-designated Natural River. A proposed Special Conservation Area (SCA) would include the Pigeon River, its associated Natural River buffer, and the steeper parts of the surrounding valley walls. This proposed SCA will extend north and south of the compartment and will be similar to what is already in place for the Sturgeon River valley.

### Watershed and Fisheries Considerations:

The Pigeon River flows through section 10 of this compartment. Hardwood Lake is located in section 11. North Twin Lake and South Twin Lake are located in section 10. Due to their (North and South Twin Lakes) popularity for recreation, including fishing, swimming, paddling, etc., these lakes are vulnerable to erosion from unauthorized access points. Access points at these locations should be monitored, and public access should be directed towards appropriate locations so erosion can be minimized.

### Wildlife Habitat Considerations:

A Wildlife Division representative will be available to participate in the formal compartment review.

### Mineral Resource and Development Concerns and/or Restrictions

No known potential exists for commercial metallic mineral production in this part of the state. No known active sand & gravel pits exist in the area. There may be potential for sand & gravel within the compartment on the uplands, but commercial development involving use of the surface in the compartment is not allowed. The compartment is outside the main Antrim Shale gas play and the formation may have limited potential for gas production beneath the compartment. The compartment is on the northern edge of the Silurian reef trend, and some past production has occurred within the compartment. There may be potential for additional Silurian reef reservoirs beneath the compartment, but State land in the compartment and surrounding area cannot be utilized for future drilling operations and all State-owned mineral rights in the compartment are non-leasable. Any decisions on future mineral exploration and development within the compartment shall be consistent with the Concept of Management for the Pigeon River Country.

### Vehicle Access:

There is good access throughout the majority of the compartment.

**Survey Needs:**

None required.

**Recreational Facilities and Opportunities:**

The Elk Hill Group Camp as well as a small portion of the Elk Hill Trail Camp are located in section 10 of this compartment. The Pigeon River Campground is also located in section 10. The Shingle Mill and High Country Pathways both pass through section 10 of this compartment, while the North Spur of the Shore to Shore trail passes through sections 10 and 11.

**Fire Protection:**

Wildfire potential is moderate-to-high as the western-half of this compartment is dominated by pine cover types. Access is generally good in case of any fire suppression efforts.

**Additional Compartment Information:**

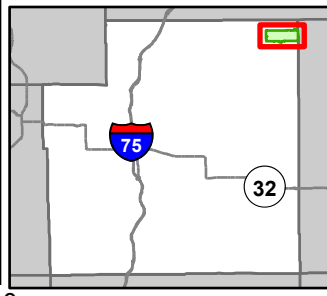
**The following reports from the Inventory are attached:**

- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

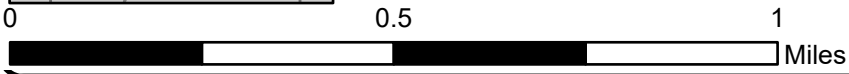
**The following information is displayed, where pertinent, on the attached compartment maps:**

- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

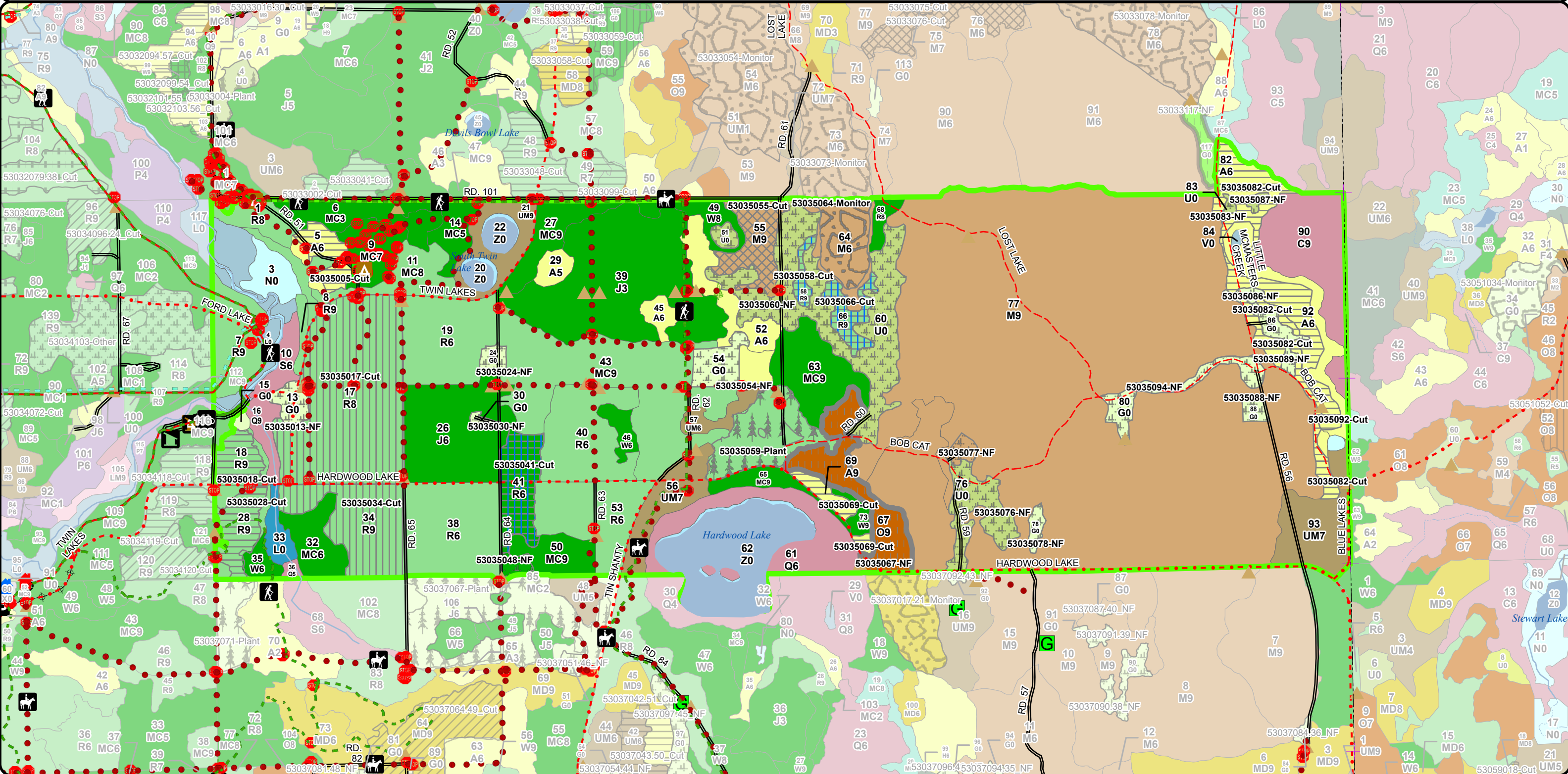
**Cover Type & Treatments Map**



Compartment: 53035  
 T32N, R1W, Sec: 10-12, 14  
 County: Cheboygan  
 Unit: Pigeon River Country  
 Mgmt Area: Wolverine Moraines  
 YOE: 2026  
 Acres: 1914.2 GIS Calculated  
 Examiner: Joyanne Mittig  
 Map Revised: 08/27/2024  
 Map Phase: Post Review

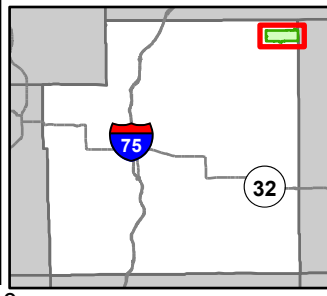


- |             |                              |                               |                                |                           |                                  |
|-------------|------------------------------|-------------------------------|--------------------------------|---------------------------|----------------------------------|
| Cabin       | Tree (marking)               | Designated Equestrian Trails  | Lakes and Rivers               | Regeneration Survey       | 430 - Upland Mixed Forest        |
| House       | Remonumented Section Corners | Designated Hiking Pathways    | Powerline                      | Shelter Wood (w/Reserves) | 612 - Lowland Coniferous Forest  |
| Toilet      | Hiking Trails                | DNR - Secondary Forest Road   | Compartment Boundary           | Opening Maintenance       | 310 - Herbaceous Openland        |
| Berms       | Bike Trails                  | County - Gravel Road          | Other Treatment - See Comments | 411 - Northern Hardwood   | 320 - Upland Shrub               |
| Gate        | Horse Trails                 | County - Dirt Road (Seasonal) | Selection (Group, Single Tree) | 412 - Oak Types           | 500 - Water                      |
| Campground  | Ski Trails                   | Intermittent Stream           | Planting (Tree Species)        | 413 - Aspen Types         | 622 - Lowland Shrub              |
| Parking Lot | Designated Bicycle Trails    | Lake/Pond                     | Clearcut (w/Reserves)          | 421 - Planted Pines       | 623 - Emergent Wetland           |
| Sign        |                              | Perennial River               | Seed Tree (w/Reserves)         | 422 - Natural Pines       | 629 - Mixed Non-forested Wetland |





# Stand Boundary Map



Compartment: 53035  
 T32N, R1W, Sec: 10-12, 14  
 County: Cheboygan  
 Unit: Pigeon River Country  
 Mgmt Area: Wolverine Moraines  
 YOE: 2026  
 Acres: 1914.2 GIS Calculated  
 Examiner: Joyanne Mittig  
 Map Revised: 08/27/2024  
 Map Phase: Post Review

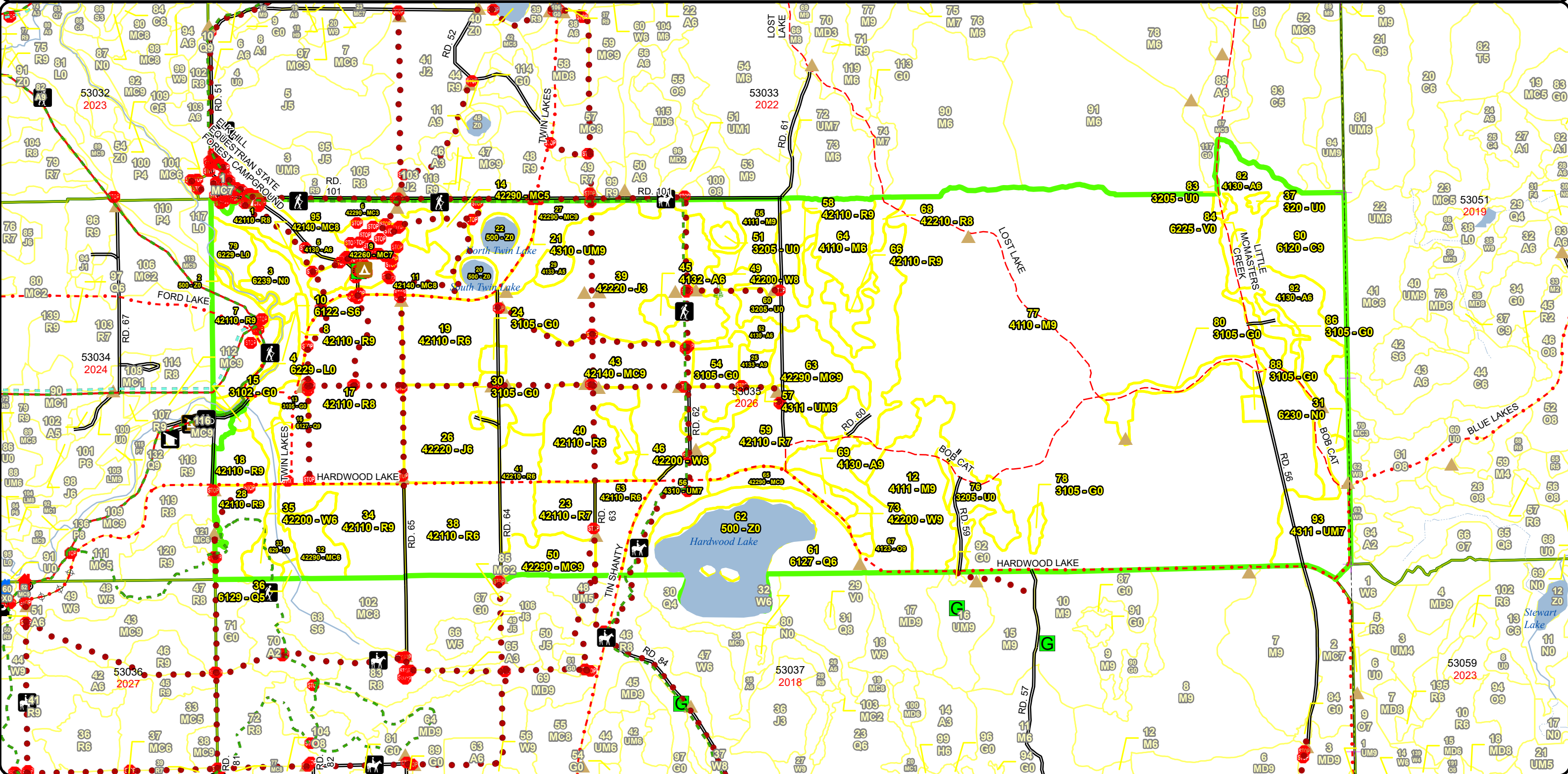
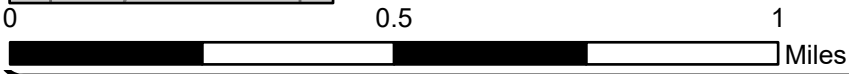
- Cabin
- House
- Toilet
- Berms
- Gate
- Campground
- Parking Lot
- Sign

- Tree (marking)
- Remonumented Section Corners
- Hiking Trails
- Bike Trails
- Horse Trails
- Ski Trails
- Designated Bicycle Trails
- Designated Equestrian Trails

- Designated Hiking Pathways
- DNR - Secondary Forest Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers

- Powerline
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines

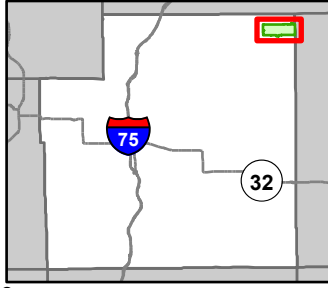
- 430 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed Non-forested Wetland





**Special Conservation Areas & Site Conditions Map**

Compartment: 53035  
 T32N, R1W, Sec: 10-12, 14  
 County: Cheboygan  
 Unit: Pigeon River Country  
 Mgmt Area: Wolverine Moraines  
 YOE: 2026  
 Acres: 1914.2 GIS Calculated  
 Examiner: Joyanne Mittig  
 Map Revised: 08/27/2024  
 Map Phase: Post Review

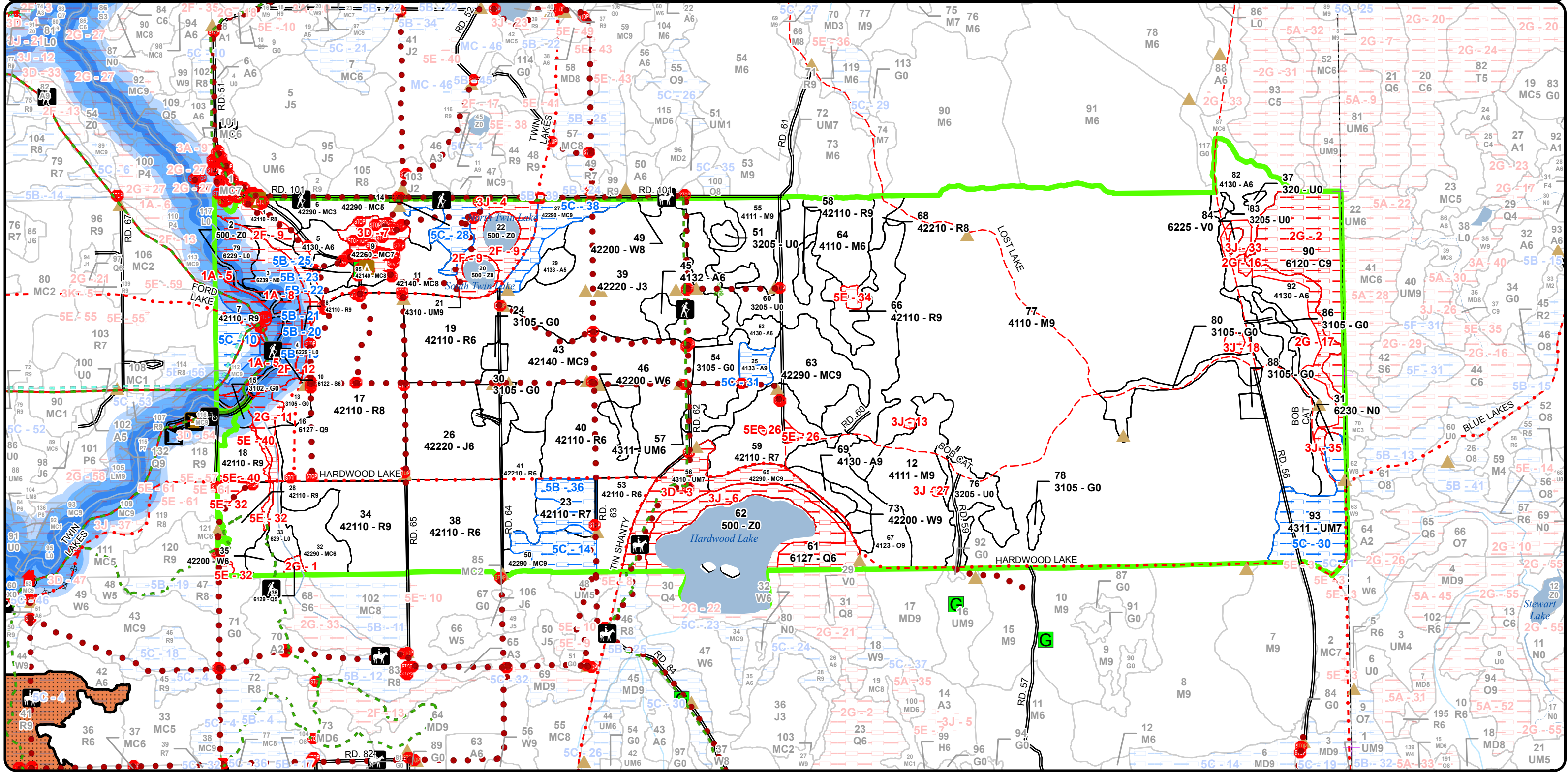


- Cabin
- House
- Toilet
- Berms
- Gate
- Campground
- Parking Lot
- Sign
- Tree (marking)
- Remonumented Section Corners
- Hiking Trails

- Bike Trails
- Horse Trails
- Ski Trails
- Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Hiking Pathways
- DNR - Secondary Forest Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Intermittent Stream
- Lake/Pond

- Perennial River
- Lakes and Rivers
- Powerline
- Compartment Boundary
- SCA
- Available w/ Constraints
- Unavailable

- 2G: Too wet (sensitive soils, does not include access issues)
- 3D: Recreational / Scenic values
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- High Priority Trout Stream Buffer
- Other Habitat Area
- Cultural Use Area



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	0	0	25	42	37	7	0	0	0	0	0	0	0	0	0	0	110
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cedar	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0	0	0	40
Herbaceous Openland	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
Jack Pine	0	0	0	44	83	0	0	0	0	0	0	0	0	0	0	0	0	0	127
Lowland Conifers	0	0	0	0	0	0	0	0	0	34	0	8	1	0	0	0	0	0	43
Lowland Shrub	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7
Marsh	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Natural Mixed Pines	0	0	17	0	27	0	0	0	0	34	15	15	0	0	0	0	0	15	123
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	639	0	0	0	0	0	0	0	639
Oak	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	28
Planted Mixed Pines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	103	102
Red Pine	0	0	0	0	123	0	0	0	0	0	226	36	0	0	0	0	0	0	384
Upland Mixed Forest	0	0	0	0	0	7	0	15	0	19	0	0	27	0	0	0	0	0	68
Upland Shrub	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80
Water	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
White Pine	0	0	0	0	5	5	0	0	0	0	9	0	4	0	0	0	0	0	23
<b>Total</b>	<b>220</b>	<b>0</b>	<b>17</b>	<b>44</b>	<b>263</b>	<b>54</b>	<b>37</b>	<b>22</b>	<b>0</b>	<b>87</b>	<b>917</b>	<b>106</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>118</b>	<b>1913</b>



Standard

Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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**Proposed Treatments:**

<b>5</b>	<b>53035005-Cut</b>	9.0	4130 - Aspen	Poletimber Well	47	141-170	Harvest	Clearcut	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Clearcut no retention due to small size of harvest. Winter harvest only. Add trail/rec spec for the equestrian trails. Mark one grouse/hare tree (10" or larger) to be pushed over (root ball attached) every two acres.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Fully stocked aspen with minor components of other native species.</p> <p><u>Regen:</u></p> <p><u>Other</u> Harvest takes place near major equestrian campground; winter harvest only to accomplish timber goals and avoid recreation conflicts.</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>											
<b>13</b>	<b>53035013-NF</b>	5.5	3105 - Mixed Upland Herbaceous	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous		No
<p><u>Prescription</u> Maintain the nonforested condition of this stand either through prescribed burning, planting, herbicide, or mechanical means. Add trail/rec spec for the equestrian trails.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>											
<b>17</b>	<b>53035017-Cut</b>	87.4	42110 - Planted Red Pine	Sawtimber Medium	99	51-80	Harvest	Shelterwood	429 - Mixed Upland Conifers	Two-Aged	No
<p><u>Prescription</u> Shelterwood harvest down to 40 BA average. Mark west side less aggressively (50 BA or so) where advanced regen is more common and visuals are more of a concern along the road. Try to protect advanced regen in the west. The eastern portion of this stand can be marked more intensely (down to 20 or 30 BA), due to lesser amounts of regeneration. Use payment unit line to divide the two areas where residual BA will differ. Snow-off/frost-free harvest only to achieve maximum scarification, but time with low-use equestrian season; before mid-May and after October. Ensure slash is well-spread and not windrowed to assist in seedling establishment. Alternative methods to chipping will be allowed so long as it results in adequate scarification of the site. If not, then chipping will be required. Require a tracked processor for felling operations and work with the operator to encourage as much ground scarification as possible with the processor. Add trail/recreation protection spec.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Fully to medium stocked mix of desirable native species, with at least 30% pine.</p> <p><u>Regen:</u></p> <p><u>Other</u> Conflict of needing scarification (snow-off) and timing to stay out of equestrian season (snow-on); avoid harvesting from mid-May through October.</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>											



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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24	53035024-NF	3.0	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous	No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

30	53035030-NF	1.1	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous	No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

34	53035034-Cut	33.8	42110 - Planted Red Pine	Sawtimber Well	91	141-170	Harvest	Shelterwood	429 - Mixed Upland Conifers	Two-Aged	No
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Prescription Shelterwood harvest, 30 - 50 BA. Do not cut any oak. Add oak wilt spec. Add trail/recreation protection spec. Snow-off/frost-free harvest only to achieve maximum scarification. Ensure slash is well-spread and not windrowed to assist in seedling establishment. Alternative methods to chipping will be allowed so long as it results in adequate scarification of the site. If not, then chipping will be required. Require a tracked processor for felling operations and work with the operator to encourage as much ground scarification as possible with the processor.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Fully to medium stocked mix of desirable native species, with at least 30% pine.

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025





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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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41	53035041-Cut	17.8	42210 - Natural Red Pine	Poletimber Well	101	81-110	Harvest	Seed Tree	429 - Mixed Upland Conifers	Two-Aged	No
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Prescription Seed tree harvest, thin the red pine down to 10 - 30 BA. Snow-off/frost-free harvest only to achieve maximum scarification. Ensure slash is well-spread and not windrowed to assist in seedling establishment. Alternative methods to chipping will be allowed so long as it results in adequate scarification of the site. If not, then chipping will be required. Require a tracked processor for felling operations and work with the operator to encourage as much ground scarification as possible with the processor.

Next Step Planting, Underplant; Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Fully to medium stocked mix of desirable native species, with at least 20% being pine and/or oak.

Other Comment: Trying to remove jack pine and encourage red pine and white pine. May need to underplant if natural regeneration fails.

Site Condition:

Proposed Start Date: 10/1 /2025

50	53035048-NF	2.7	42290 - Natural Mixed Pine	Sawtimber Well	100	81-110	NonForestMgt	Other - Specify	3205 - Mixed Upland Shrub		No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable Regen:

Other Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

51	53035051-NF	2.3	3205 - Mixed Upland Shrub	Nonstocked	Unspec ified	NonForestMgt	Other - Specify	3205 - Mixed Upland Shrub		No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, planting, herbicide, or mechanical means. Add trail/rec spec for the equestrian trails.

Next Step

Treatments:

Acceptable Regen:

Other Comment:

Site Condition:

Proposed Start Date: 10/1 /2025



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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<b>54</b>	<b>53035054-NF</b>	9.3	3105 - Mixed Upland Herbaceous	Nonstocked	Unspecified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous		No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, herbicide, or mechanical means. Add trail/rec spec for the equestrian trails and campground adjacent to this treatment.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

<b>55</b>	<b>53035055-Cut</b>	17.2	4111 - S.Maple, Hard Mast Association	Sawtimber Well	95	111-140	Harvest	Group Selection	4319 - Mixed Upland Forest	Two-Aged	No
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Prescription Place 75' gaps around large oak and sugar maple, harvesting to 1" spec in the gaps. 1 gap per five acres at the minimum. Put the gaps in first (and GPS their locations), then mark the rest of the stand down to 60BA. Keep some larger trees in the thinned acres. May need to follow up with planting oak and pine in the gaps if natural regeneration fails. Add oak wilt spec. Leave some white pines as a seed source. Add trail/rec spec for the equestrian trails

Next Step Monitoring, Natural Regen (Intermediate); Planting, Underplant  
Treatments:

Acceptable Medium stocked mix of desirable native species, with at least 20% of the regen being oak and/or pine.  
Regen:

Other  
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

<b>58</b>	<b>53035058-Cut</b>	3.1	42110 - Planted Red Pine	Sawtimber Well	95	51-80	Harvest	Seed Tree	4211 - Planted Red Pine	Even-Aged	No
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Prescription Seed tree, 10 - 30 BA. Keep slash away from trees. Make part of surrounding burn unit.  
Specs:

Next Step NonForestMgt, Other - Specify  
Treatments:

Acceptable Fully to medium stocked mix of desirable native species.  
Regen:

Other  
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
<b>60 53035060-NF</b>	59.0	3205 - Mixed Upland Shrub	Nonstocked	0	Unspecified	NonForestMgt	Other - Specify	3205 - Mixed Upland Shrub		No
<p><u>Prescription</u> Maintain the nonforested condition of this stand either through prescribed burning, planting, herbicide, or mechanical means.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
<b>66 53035066-Cut</b>	8.8	42110 - Planted Red Pine	Sawtimber Well	95	81-110	Harvest	Seed Tree	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Seed tree, 10 - 30 BA. Keep slash away from trees. Make part of surrounding burn unit.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> NonForestMgt, Other - Specify</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Fully to medium stocked mix of desirable native species.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
<b>67 53035067-NF</b>	28.0	4123 - Red Oak	Sawtimber Well	97	111-140	NonForestMgt	Brush Cutting	4319 - Mixed Upland Forest	Two-Aged	No
<p><u>Prescription</u> Masticate ironwood, beech, and cherry to open up space for planting oak and/or pine under the mature oaks in this stand. Avoid masticating existing pine regeneration.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> ; Monitoring, Natural Regen (Intermediate)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Medium stocked mix of desirable native species with planted oak and pine</p> <p><u>Regen:</u></p> <p><u>Other</u> This stand regenerated to undesirable species after it was harvested. A masticator should be able to fit between trees.</p> <p><u>Comment:</u> Regen survey after mastication. If mastication unsuccessful, consider harvesting some of the oaks to allow more sunlight, and underplant pines and/or oaks.</p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
<b>69 53035069-Cut</b>	6.5	4130 - Aspen	Sawtimber Well	61	111-140	Harvest	Clearcut	413 - Aspen	Two-Aged	No
<p><u>Prescription</u> Clearcut, no retention; harvest all aspen, leave all oak. Mark to retain all white pine above 20" in diameter. Add oak wilt spec.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Fully stocked aspen with minor components of other native species.</p> <p><u>Regen:</u></p> <p><u>Other</u> Timber sale: combine with stand 82 and 92.</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										





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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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76	53035076-NF	16.6	3205 - Mixed Upland Shrub	Nonstocked	0	Unspecified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous	No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

77	53035077-NF	2.8	4110 - Sugar Maple Association	Sawtimber Well	92	81-110	NonForestMgt	Other - Specify	411 - Northern Hardwood	Uneven-Aged	No
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Prescription Handpull and/or spray garlic mustard using DNR and Huron Pines staff.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2024

78	53035078-NF	2.4	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous	No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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82	53035082-Cut	31.7	4130 - Aspen	Poletimber Well	55	141-170	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
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Prescription Clearcut with retention. Do not cut any oak, white pine, hemlock, cedar, or sugar maple. Mark one grouse/hare tree 10" or larger (these will be in the western portion of the stand) to be pushed over with the root ball attached AND/OR mark groups of small aspen (these will be in the eastern portion of the stand along the swamp) to be pushed over with their root balls attached every two acres. Place small retention pockets around hemlocks, to prevent shock and dieback from root disturbance. Most of the retention has been delineated during inventory around the bog and low areas, but more may be found during sale prep.

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable Fully stocked aspen with minor components of other native species.  
Regen:

Other Combine with stand 92 in the north  
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

83	53035083-NF	1.2	3205 - Mixed Upland Shrub	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	3205 - Mixed Upland Shrub		No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, planting, herbicide, or mechanical means.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

86	53035086-NF	1.7	3105 - Mixed Upland Herbaceous	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous		No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, herbicide, or mechanical means.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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37	53035087-NF	1.1	320 - Upland Shrub	Nonstocked	0	Unspecified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous	No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

88	53035088-NF	2.7	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous	No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

86	53035089-NF	4.8	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous	No
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Prescription Maintain the nonforested condition of this stand either through prescribed burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025





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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
92 53035092-Cut	14.9	4130 - Aspen	Poletimber Well	45	1-50	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Clearcut with retention; retention has already been placed around wet areas found during inventory. Mark one grouse/hare tree 10" or larger (these will be in the western portion of the stand) to be pushed over with the root ball attached AND/OR mark groups of small aspen (these will be in the eastern portion of the stand along the swamp) to be pushed over with their root balls attached every two acres</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Fully stocked aspen and minor components of other native species.</p> <p><u>Regen:</u></p> <p><u>Other</u> Clearcutting to restart stand and increase vigor.</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
80 53035094-NF	11.6	3105 - Mixed Upland Herbaceous	Nonstocked			Unspec NonForestMgt	Other - Specify	3105 - Mixed Upland Herbaceous		No
<p><u>Prescription</u> Maintain the nonforested condition of this stand either through prescribed burning, planting, herbicide, or mechanical means.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										

**Approved Treatments:**

18 53035018-Cut	9.1	42110 - Planted Red Pine	Sawtimber Well	98	81-110	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Clearcut, trench, and replant. Do not cut oak and do not cut any white pine over 20" DBH. Desired retention area has been excluded from the treatment boundary and is in the site conditions layer (southwest corner of treatment). Stay on top of the slopes on the east side, follow the old red line. Exclude areas of good advanced regen along the east/northeast side of the stand. Protect oak saplings.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Fully-stocked stand of planted red pine.</p> <p><u>Regen:</u></p> <p><u>Other</u> Add low stumps, chipping, and 2" specs. Cut in the winter to avoid conflicts with the adjacent campground.</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
<b>28 53035028-Cut</b>	12.8	42110 - Planted Red Pine	Sawtimber Well	98	111-140	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Clearcut, trench, and replant. Do not cut oak or any relict red or white pine over 20" DBH. Although rare in the stand, protect red and white oak saplings. Areas of desired retention have already been excluded from the treatment boundary and are in the site conditions layer.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Fully-stocked, planted red pine.</p> <p><u>Regen:</u></p> <p><u>Other</u> Add horse and hiking trail specs. Add low stumps, chipping, and 2" specs. Leave trail marker trees cut at five feet to aid in trail</p> <p><u>Comment:</u> identification.</p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>										
<b>59 53035059-Plant</b>	25.9	42110 - Planted Red Pine	Sawtimber Poor	96	1-50	Planting	Underplant	42260 - Natural Pine, Mixed Deciduous	Two-Aged	No
<p><u>Prescription</u> Following sale completion, plant 10-20 oak saplings per acre.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Acceptable regeneration will be at least a medium-stocked stand of all pine species with at least a 25% representation of red pine. Oak</p> <p><u>Regen:</u> regeneration will also be acceptable.</p> <p><u>Other</u> Percent to Treat = 100%</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
<b>64 53035064-Monitor</b>	17.7	4110 - Sugar Maple Association	Poletimber Well	96	81-110	Monitoring	Natural Regen (Intermediate)	411 - Northern Hardwood	Uneven-Aged	No
<p><u>Prescription</u> Natural regen survey at TCR + 4 years</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Northern hardwood regeneration in canopy gaps not dominated by beech or ironwood.</p> <p><u>Regen:</u></p> <p><u>Other</u> Percent to Treat = 100%</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2027</p>										

**Total Treatment Acreage Proposed: 451.5**



**Availability for Management**

Total Acres    *Acres Avail*    Acres  
 Acres Available    *With Condition*    Not Available

**Dominant Site Conditions**

0	0	0	Aspen
0	0	0	Bog
0	0	0	Cedar
0	0	0	Herbaceous Openland
0	0	0	Jack Pine
0	0	0	Lowland Conifers
0	0	0	Lowland Shrub
0	0	0	Lowland Spruce/Fir
0	0	0	Marsh
0	0	0	Natural Mixed Pines
0	0	0	Northern Hardwood
0	0	0	Oak
0	0	0	Planted Mixed Pines
0	0	0	Red Pine
0	0	0	Upland Mixed Forest
0	0	0	Upland Shrub
0	0	0	Water
0	0	0	White Pine
			Total Forested Acres
			Relative Percent

*\*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Very poor quality, wet ground.							





2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	40	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
3	Unavailable	3D: Recreational / Scenic values	38	3A: Conservation Values incompatible with harvest at this time	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Visual buffer around Hardwood Lake that should be left unmanaged.							
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	15	2F: Too steep	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Steep slopes/erosion concerns. Also provides a visual buffer for the Twin Lakes.							
5	Unavailable	1A: Federal/State/Local Law	10	3D: Recreational / Scenic values	3A: Conservation Values incompatible with harvest at this time	Unspecified	Unspecified
<b>Comments:</b> This part of the stand is within the natural river zone of the Pigeon River. Pathway goes through this area as well.							
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	20	2G: Too wet (sensitive soils, does not include access issues)	3D: Recreational / Scenic values	Unspecified	Unspecified
<b>Comments:</b> Forested bog, buffer for Hardwood Lake.							
7	Unavailable	3D: Recreational / Scenic values	13	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Elk Hill Group Camp							



8	Unavailable	1A: Federal/State/Local Law	39	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b>                  This area is almost entirely within the Pigeon River natural river zone.</p>							
9	Unavailable	2F: Too steep	23	3A: Conservation Values incompatible with harvest at this time	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b>                  Steep slopes.</p>							
10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b></p>							
11	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	1A: Federal/State/Local Law	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b>                  Portion of stand within influence zone of Pigeon River. Wet drainage drains into Pigeon River, part of proposed SCA.</p>							
12	Unavailable	2F: Too steep	3	3G: Other Influence zones - See comments	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b>                  Stand also falls within influence zone of the Pigeon River.</p>							
14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b></p>							



19	Available	5B: Maintain for regeneration purposes	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
20	Available	5B: Maintain for regeneration purposes	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
21	Available	5B: Maintain for regeneration purposes	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
22	Available	5B: Maintain for regeneration purposes	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
23	Available	5B: Maintain for regeneration purposes	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
24	Available	5B: Maintain for regeneration purposes	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							



25	Available	5B: Maintain for regeneration purposes	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
36	Available	5B: Maintain for regeneration purposes	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
38	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



### Report 5 – PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments



**Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

\* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area  
HCVA = High Conservation Value Area  
SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet.





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments									
1	42110 - Planted Red Pine	Sawtimber Medium	10.1	99	141-170	N/A	2026 YOE Notes: Mature red pine stand, topography drops off sharply in the west. Jack pine increases down the slope, and white pine in the subcanopy decreases. Many of the jack pine are dying.  Found a planting record card saying this area was planted to red pine and jack pine in 1921, and manual residually cut in 1977  2016 YOE Notes: -Road 51 goes through the middle of this stand and a portion of Elk Hill Campground is at the north end. -#53-013-96-01, Campground Blocks, bought by Georgia Pacific followed the topography line, not going down the hill.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Paper Birch	1	Pole/Log	8		Black Cherry	Medium	Variable	Sapling
								Red Pine	90	Log/Pole	14	99	Paper Birch	Low	>20 feet	Sapling
								Red Maple	2	Pole/Log/Sap	7		Maple Leaved Viburnum	Low	Variable	Tall Shrub
								Bigtooth Aspen	2	Pole/Log	9		Red Pine	Low	>20 feet	Pole
								Red Oak	2	Log/Pole	10		Beech	Medium	Variable	Sapling
								Jack Pine	3	Pole/Log	8		Red Pine	Low	>20 feet	Sapling
													White Pine	High	Variable	Sapling
													Hawthorn (spp.)	Trace	5 - 10 feet	Tall Shrub
2	500 - Water	Nonstocked	4.1		Unspecified	No	2026 YOE Notes: Pigeon River									
3	6239 - Mixed Emergent Wetland	Nonstocked	9.5		Unspecified	No	2026 YOE Notes: Wet sedge/grass/forb. Even though there wasn't standing water, the soil is wet, dark muck. This is an excellent pollinator area, given the amount of bee balm, golden rod, spirea, and prickly gooseberry (plus the willow in the adjacent stand to the north).									
								Sub-Canopy Species	Density	Avg. Height	Size					
								Balsam Fir	Low	Unspecified	Sapling					
								Willow spp.	Low		Tall Shrub					
								Balsam Poplar	Low	Unspecified	Sapling					
Black Cherry	Low	Unspecified	Sapling													
4	6229 - Mixed lowland shrub	Nonstocked	7.8		Unspecified	No	2026 YOE Notes: Pigeon River shrub corridor. The northern portion of the stand is a willow thicket, but as you move south, more tag alder, red osier dogwood, ninebark, and large, mature spruce trees line the bank. Ground is full of grass and sedge. Some herbaceous wetland plants are found on the banks; blue vervain, joe-pye weed, possibly poison or water hemlock.									
								Sub-Canopy Species	Density	Avg. Height	Size					
								Willow spp.	High	Unspecified	Tall Shrub					
								Quaking Aspen	Trace		Pole					
								White Spruce	Low		Pole					
								Ninebark	Low		Tall Shrub					
								Alder	Medium	Unspecified	Tall Shrub					
								Balsam Poplar	Trace		Sapling					
Jack Pine	Trace		Pole													



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**5** 4130 - Aspen Poletimber Well 11.2 47 141-170 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	40	Log/Pole	10	47
White Pine	1	Log	12	
Red Pine	15	Log/Pole	13	
Red Oak	1	Log	12	
Red Maple	3	Pole	7	
Quaking Aspen	40	Pole/Log	8	

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	High	Variable	Sapling
Red Pine	Low	Variable	Sapling
Red Maple	High	>20 feet	Sapling
Maple Leaved Viburnum	Low	< 5 feet	Tall Shrub
White Spruce	Low	5 - 10 feet	Sapling
Black Cherry	Medium	Variable	Tall Shrub
White Pine	Medium	>20 feet	Pole
Jack Pine	Low	>20 feet	Sapling
Beech	Low	10 - 20 feet	Sapling

2026 YOE Notes: White pine + red maple saps and poles growing underneath the crowns of the aspen. Area north of the rd is almost all quaking aspen and smaller red pine in canopy. Area south of the road is mostly bigtooth aspen, more dense, larger trees, and less white pine in subcanopy. Pocket of sapling/small pole quaking aspen in northeast area of stand. Highly variable stand. Hilly topography. Stand is full of horse trails; some trails I don't see represented on Mifi data. BA swings of 130, 140, and 170.

Found an FTP from 1977 for this stand; stand was taken down to 24BA: merchantable timber now being cut. Producer can cut residual cull material while on the site. New sprouting will make good game habitat and produce new aspen stand.

2016 YOE Notes: -Wait ten years.  
-Small inclusion of R9 next to Road 51. This is where most of the red pine is located. Poor quality, deformed white pine throughout.  
-QA is on the north side of the road.  
-Trace of red oak and paper birch.

**6** 42290 - Natural Mixed Pine Sapling Well 17.3 17 1-50 N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	25	Sapling	3	
Jack Pine	30	Sapling	3	17
Red Oak	2	XLog/Log	18	
Red Pine	30	Sapling	2	17
Red Pine	13	XLog/Log	18	99

Sub-Canopy Species	Density	Avg. Height	Size
Jack Pine	Medium	< 5 feet	Seeding
White Pine	Medium	< 5 feet	Seeding
Red Pine	Medium	< 5 feet	Seeding

2026 YOE Notes: Saplings under supercanopy of red pine and a few red oak. More residual supercanopy trees in the east. Residual red pine is in good health. The regen of all pine species is doing great; from the notes of the previous inventory, it just took a bit to get established. It's likely the dominant sapling age is less than 17 years, given that it took a few years after the harvest to establish. In all, it's a great mix of natural regeneration. Looks like the red pine regenerated slower than the white pine and jack pine. The regen appears to have a range of ages, too; there are still seedlings establishing themselves.

Notes from 2006 say there was a "Horse-shoe JP budworm sale" in 1994

Found a planting record card saying this area was planted to red pine and jack pine in 1922 and 1925, ribes control in 1957, manually and residually cut in 1977

2016 YOE Notes: -Twin Hardwood Red Pine, #53-013-07-01, bought by Bisballe. Red pine seed tree cut, all oak and birch left as well. Not much regen at this point.  
-Trace of paper birch and oak in the overstory. Trace of jack pine in the understory.

**7** 42110 - Planted Red Pine Sawtimber Well 21.6 96 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	5	Log/XLog	17	
Red Pine	95	Log/Pole/XLog	12	96

Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	Low	Variable	Sapling
Beech	Medium	Variable	Sapling
Red Pine	Medium	Variable	Sapling
Dogwood (spp.)	Low	5 - 10 feet	Tall Shrub
Witch Hazel	Low	5 - 10 feet	Tall Shrub
Red Maple	Medium	>20 feet	Pole
White Pine	High	Variable	Sapling

2026 YOE Notes: Found a planting record card saying this area was planted to red pine and jack pine in 1920, but the trees didn't look that old, and when I cored two red pines, they aged 93 and 96. Steep slope/hill along south and east. Jack pine are almost all dead and falling over. Trace red oak, jack pine, and paper birch in canopy.

2016 YOE Notes: -This stand doesn't appear that it has been thinned before. Travel and recreation influence, steep slopes as well along the south and east edges. The Shingle Mill Pathway meanders throughout this stand.  
-Leave this stand unmanaged.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																				
8	42110 - Planted Red Pine	Sawtimber Well	3.1	104	201+	N/A	2026 YOE Notes: Steep slope. BA swings of 190 and 220. 2016 YOE Notes: -Stand was planted to RP by CCC but steep slopes make almost all of this stand inoperable.																																																																				
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9	42260 - Natural Pine, Mixed Deciduous	Sawtimber Poor	14.7	95	1-50	N/A	2026 YOE Notes: Equestrian campground: manure bunkers, pit toilets, fire rings, benches, hitching posts. Cored a 15.5" dbh red pine, 95 years; very tight growth rings between the ages of 40 and 50. All the red pine are short, thickly branched. Cored an 11" dbh black cherry, counted 40 years. Found a planting record card saying this area was planted to red pine and jack pine in 1922 and 1925, ribes control in 1957, manually and residually cut in 1977 2016 YOE Notes: -Elk Hill Group Campground																																																																				
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10	6122 - Black Spruce	Poletimber Well	7.3	105	201+	N/A	2026 YOE Notes: Slowly, then drastically slopes down to river. Several small drainages flow down to river. Stem diameter decreases as you move towards the river. Stand also moved from cedar-dominated to black spruce, tamarack, and balsam far shortly after the red pine stand to the west. Cored an 11" black spruce, 105 years. Cored a 13" cedar, could only count 84 rings due to decaying center; assume in the 90s. 2016 YOE Notes: -No management due to its proximity to the Pigeon River. -Spruce more common along the western edges of the stand.																																																																				
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11	42140 - Planted Mixed Pine	Sawtimber Medium	15.9	99	81-110	N/A	2026 YOE Notes: An incredibly variable stand; variability increases as you move east. It's definitely uneven-aged. Cored four trees: 11" red pine, 53 years old. 18" red pine, 73 years old. 20" red pine, at least 112 years old (core broke). 14" red pine, 85 years old. BA swings of 120, 70, and 60. Could it have been thinned multiple times, and each time, a new age class grew in? Notes from 1994 say "cut jack pine and aspen, mark open-cone jack pine for seed and residual where red pine is thin". Found a planting record card that says this area was planted to red pine and jack pine in 1925, but also had Ribes control performed in 1957. 2016 YOE Notes: -#53-013-96-01, Campground Blocks, bought by Georgia Pacific. Shelterwood harvest, with highly variable stocking (may have been a species removal harvest). Stocking and size greatly decrease as you move east and north in the stand, with WP poles picking up in this area. Portion of stand west of Road 51 has not been thinned and slopes down to a small Q type inclusion.																																																																				
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12	4111 - S.Maple, Hard Mast Association	Sawtimber Well	38.1	92	81-110	N/A	This southwest area has slightly higher quality stems, higher BA in parts, and larger diameter. Also more oak and hemlock. Different understory composition; less dense subcanopy and shorter height. This stand might be uneven aged. Beech are dead/dying. Trace XL white pine and L red maple. Some areas have very low BA (90) due to previous harvests. Maidenhair fern present in the portion of the stand south of Bobcat Trail. Looking at Web Soil Survey, this stand is roughly the same area as the Leelanau loamy sand (0 to 6% slope) polygon. My delineation definitely wasn't perfect; some areas within this stand have more poles and small logs.																																																															
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13	3105 - Mixed Upland Herbaceous	Nonstocked	5.5		Unspecified	No	2026 YOE Notes: Full of little bluestem and sweetfern. Still had spotted knapweed and mullien. 2016 YOE Notes: Burn the part of this stand east of Twin Lakes Road in conjunction with the adjacent red pine stand to the east.																																																															
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14	42290 - Natural Mixed Pine	Poletimber Medium	11.7	34	111-140	N/A	2026 YOE Notes: Very natural structure to stand; mosaic of trees; small gaps in canopy/trees in clusters/islands. 2016 YOE Notes: -Twin Lakes West Clearcut, #53-026-88-01, bought by K&R Logging. -Browsing has eliminated most of the aspen from this stand. Many of the JP and WP are open-grown, poor quality trees.																																																															
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15	3102 - Grass	Nonstocked	1.2		Unspecified	No	2026 YOE Notes: Re-vegetated, mostly spotted knapweed and little bluestem. Surrounded by steep sides. 2016 YOE Notes: Appears to be an old gravel pit. Too much snow on the ground to see if it has re-vegetated.																																																															
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<b>16</b>	6127 - Lowland Pine	Sawtimber Well	7.6	107	81-110	N/A	2026 YOE Notes: western border sharply drops off to the east. Different species on slope; white pine, red pine, and balsam fir and spruce in lowland. Small stream still present. More spruce, northern white cedar, open understory, and larger avg diameters in the north portion of the stand. 2016 YOE Notes: -This stand slopes down to the north and there is a small stream flowing through the middle.																																																																																		
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<b>17</b>	42110 - Planted Red Pine	Sawtimber Medium	87.4	99	51-80	N/A	2026 YOE Notes: Red pine supercanopy with well-stocked subcanopy of mixed conifer. East half of stand has far fewer subcanopy trees than west half. East half also has more white pine and especially red pine seedlings and saplings in its subcanopy. Very impressive natural red pine regeneration in the east half. Variable BA; 40, 90, 120, 70  in 2004 notes, says this stand will be thinned, but some regen holes will be made. Also says area west of road: jack pine will be removed and red pine thinned.  1985 Oswood Jack Pine Sale; cut all merchantable trees except red pine and oak.  Found a planting record card saying the north half of the stand was planted to red pine and jack pine three times; 1920, 1925, and 1927. The south half of the stand was planted to jack pine and red pine in 1920.  2016 YOE Notes: -#53-013-07-01, Twin Hardwood Red Pine, thinning bought by Bisballe. -The pine is still pretty small at this point to consider a regeneration treatment. Let it grow a little more and consider treating during the next inventory cycle. -Trace of red oak, paper birch, red maple, white pine, and balsam fir in the overstory. Trace of fir, beech, and aspen in the understory regen.																																																																																		
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19	42110 - Planted Red Pine	Poletimber Well	33.8	37	141-170	N/A	2026 YOE Notes: Still a nice stand, definitely pole sized now. Trace white pine along the rd. Understory of blueberry, wintergreen, bracken fern.																																																																
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21	4310 - Pine, Oak Mix	Sawtimber Well	15.3	68	81-110	N/A	2026 YOE Notes: Standing dead jack pine. Wintergreen and blueberry ground flora. Sharply slopes down to sinkhole lakes, but overall, gently slopes down to rd to the east. Numerous foot paths go down to sinkhole lakes. Cored 9" white pine, 55 years. Cored a 15" red pine, 70 years. More oak and bigtooth aspen on the west side of the lakes. Wider variety in diameter than expected. There are some much older-looking red and white pines present. BA swings of 100, 110.																																																																
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<b>23</b>	42110 - Planted Red Pine	Sawtimber Poor	14.7	100	81-110	N/A	2026 YOE Notes: Basically the same as the surrounding stands, but with much younger subcanopy/trees growing up under red pine. The red pine canopy trees are shorter than expected. BA swings of 100, 80. There is a 1.5 acre chunk along the western boundary that looks like it was never thinned; canopy trees are small diameter, almost no understory/subcanopy; was this an old retention area?  2016 YOE Notes: #53-010-96-01 Dead Horse Trail Blocks, bought by Georgia Pacific, all jack pine cut. A few clumps of denser red pine, but the jack pine understory is free to grow in most spots.																																																											
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<b>25</b>	4133 - Aspen, Mixed Pine	Sawtimber Well	5.2	46	81-110	N/A	2026 YOE Notes: Overall, this stand has some of the better aspen quality in the area. The southwest area of this stand is different from the rest of it, and it contains part of the Off-site Hardwood Lake Equestrian Campground: It's mostly log-sized conifers and red oaks, there's horse hitching areas within the forest, potential invasive species sprouting out of piles of horse dung (segmented tubular stems with fine bristles, about 3' in height), and two wooden gravestones hammered 15' above the ground in a red pine tree. Trace sugar maple and paper birch in the canopy. BA swings of 80, 120, 100  This stand was part of a non-commercial wildlife timber harvest in 1978. The goal was to regenerate a high-quality aspen and birch stand (thicket) for wildlife. It sounds like everything except birch and black cherry was cut out of the stand at this time.  2016 YOE Notes: Wait ten years, still a lot of small stems. -Inclusion of mature red pine adjacent to the large nonforested opening. Jack pine becomes more common as you move south in the stand. -Trace of red oak, white oak, and paper birch.																																																											
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<b>26</b>	42220 - Natural Jack Pine	Poletimber Well	44.1	27	1-50	N/A	2026 YOE Notes: Wide variety of white pine diameters; red pine diameters consistent. The red pine and white pine log sized trees are short, branchy, and about 60 years old. 2016 YOE Notes: #53-010-96-01, Dead Horse Trail Blocks, jack pine clearcut bought by Georgia Pacific. -Variable stocking. Quite a few open-grown and crooked jack pine. Planting card records show this stand was planted to jack pine in 1925.																																																											
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**27**      42290 - Natural Mixed Pine      Sawtimber Well      15.1      54      81-110      N/A

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	10	Log/Pole	10	
Red Maple	3	Pole	7	
Quaking Aspen	1	Pole/Sapling	5	
White Pine	25	Pole/Log/XLog	8	70
Red Pine	50	Pole/Log/XLog	8	54
Red Oak	5	Log/Pole	12	
Jack Pine	6	Pole	7	

Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	Low	Variable	Sapling
White Pine	High	Variable	Sapling

2026 YOE Notes: Uneven-aged stand. The eastern portion of this stand is a little different than the western portion that follows the road; it has more red pine. About 15% to 20% of the overstory is XL red and white pine (145+ years old); most of the XL white pine is near the road. The red pine poles and logs are two ages classes: 54 and 72 years old. Found a planting record card that says this area was planted to red pine and jack pine in 1925, and also had Ribes control performed in 1957.

Cored:  
21.5" red pine, 145 years  
8" red pine, 72 years  
13" red pine, 54 years  
9.5" white pine, 70 years

BA swings of 110, 100, 130.

Looks similar to stand 43; was it also planted/harvested at the same time? Should have some sort of harvest record...

2016 YOE Notes: Wide mix of sizes within this stand, possibly uneven-aged. Jack pine and aspen are more prevalent as you move south in the stand.  
-This stand serves as a nice visual buffer and should be left unmanaged for now.

**28**      42110 - Planted Red Pine      Sawtimber Well      17.7      98      111-140      N/A

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	1	Pole	6	
Red Pine	76	Log/XLog/Pole	12	98
Bigtooth Aspen	1	Pole	7	
Red Maple	1	Pole	5	
Jack Pine	5	Pole/Sapling	6	
White Pine	15	Pole/Sap/Log	7	37
Red Oak	1	Log	13	

Sub-Canopy Species	Density	Avg. Height	Size
Beech	Low	Variable	Sapling
Red Pine	Low	Variable	Sapling
White Pine	Full	Variable	Sapling
Balsam Fir	Low	Variable	Sapling
Black Cherry	Medium	Variable	Tall Shrub
Jack Pine	Low	Variable	Sapling

2026 YOE Notes: Variable diameters. Towerman's Watch pathway runs through this stand.

2016 YOE Notes: A planted red pine stand of highly variable stocking due to a species removal in 1987 (#53-008-86-01, Oswood Jack Pine Sale, AJD), where everything was cut except for red pine, white pine, and oak. You could probably break this into 2 separate stands (see 98DOQ imagery) as the east half of the stand is mostly dense R9, while the west half is a mix of scattered residual red pine and younger patches of white pine and jack pine poletimber that regenerated after the species removal harvest. The young white pine is of varying quality, a lot of the stems are bushy and weevil-damaged, although some of the denser pockets have good quality stems. A small amount of large diameter (20"+ DBH), relict red pine is scattered throughout. I found 1 red oak and 2 white oak saplings in the stand. Trace of white spruce poletimber along the east edge which slopes down to a wetland. Average ba/acre of the stand from 10 plots = 123 square feet. The Towerman's Watch Pathway meanders through the south half of the stand. A horse trail follows an old road that travels southwest off of Twin Lakes Road, eventually joining with the closed road the forms the western boundary of the stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																				
29	4133 - Aspen, Mixed Pine	Poletimber Medium	4.7	36	1-50	N/A	2026 YOE Notes: A patch of aspen regen, towering over white pine and jack pine. Could probably combine with stand 39 and count it as in inclusion. BA average of 50.2016 YOE Notes: #53-011-87-01, Twin Lakes Burn Salvage, bought by Ralph Walker. Stand burned in 1987 in a wildfire and was subsequently put up for a salvage harvest.																																																				
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30	3105 - Mixed Upland Herbaceous	Nonstocked	1.1		Unspecified	No																																																					
31	6230 - Cattail	Nonstocked	1.0	0	Unspecified	No	Sudden pocket of standing water and cattails surrounded by willow																																																				
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32	42290 - Natural Mixed Pine	Poletimber Well	14.8	37	51-80	N/A	2026 YOE Notes: Scattered supercanopy white pine and red pine logs, maybe 15% of canopy is log-sized trees. Variety of white pine diameters. Most of the canopy white pines are pole-sized. BA swings of 110 and 40. Historically, beaver have harvested a lot of the aspen.  Western portion of this stand may be as follows: found a planting record card saying this area was planted to red pine and jack pine in 1921  2016 YOE Notes: #53-005-86-01, Twin Lakes Pine Clearcut, bought by Larry Bayaham. Everything cut except white pine, red pine, and oak. Scattered pockets of R9/W9, especially in the southern part of the stand. Trace of red oak. This was previously called an A3 but there is hardly any aspen in it.																																																				
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33	629 - Mixed non-forested wetland	Nonstocked	6.2		Unspecified	No	2026 YOE Notes: Southern portion of this stand is a lowland sedge field full of the standing skeletons of conifers. A few open pockets of water. Small stream runs north through this stand. Random rock pile (old road?) running east/west at middle of stand. Several beaver dams throughout. From imagery, ponded areas vary in water amounts from year to year. Spruce, tag alder, white pine, and balsam fir on edges. Found tree stand and some recently cut saplings around the tree stand.																																																				
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<b>34</b>	42110 - Planted Red Pine	Sawtimber Well	33.8	91	141-170	N/A	2026 YOE Notes: Variable stand, red pine diameter highly variable. Despite variety in red pine sizes, they are the same age. Just to check, I cored a 17.5" rp (91 yrs) and 12.5" rp (87 yrs). Red pine taller towards west half. More deciduous trees in overstory in the west as well. Close to the west edge, fewer log sized trees in canopy. BA swings of 180, 100, and 150.																																																																				
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<b>35</b>	42200 - Natural White Pine	Poletimber Well	4.7	37	81-110	N/A	2026 YOE Notes: Towermans' Watch Pathway runs through stand. Varying diameters. More aspen in south. Borderline log stand.																																																																				
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<b>36</b>	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	1.4	117	51-80	N/A	Low quality																																																																				
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<b>37</b>	320 - Upland Shrub	Nonstocked	1.1	0	Unspecified	No																																																																					
<b>38</b>	42110 - Planted Red Pine	Poletimber Well	39.8	39	141-170	N/A	2026 YOE Notes: Crowns starting to get small. Very consistent stand. Trace white pine in canopy, and trace balsam fir in subcanopy. Cut in 1984 Jack Pine Velvet sale (clearcut).																																																																				
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<b>39</b>	42220 - Natural Jack Pine	Sapling Well	82.9	35	1-50	N/A	2026 YOE Notes: Plow lines still exist from wildfire. Stand just bumped into pole class. Trace amounts of white pine seedlings. A few patches of lower density in the south; will find a bit more diversity: trace white pine XL trees, more white pine and red pine in general. BA swings of 20, 40. 2016 YOE Notes: Stand burned in a wildfire and then was subsequently salvaged. Twin Lakes Burn Salvage, #53-011-87-01, bought by Ralph Walker.-Quite a few broken tops from a heavy snowstorm in 2012.-Good looking jack pine stand.																																																
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<b>40</b>	42110 - Planted Red Pine	Poletimber Well	33.2	39	81-110	N/A	2026 YOE Notes: 90 BA average.  Found a planting record card saying western half of this stand was planted to jack pine in 1925  2016 YOE Notes: #53-025-84-01, Jack Pine Velvet, jack pine clearcut bought by Champion. Planted to red pine in 1985. -Trace of white pine.																																																
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<b>41</b>	42210 - Natural Red Pine	Poletimber Well	17.8	101	81-110	N/A	2026 YOE Notes: Stand is similar in structure to stand 50, but replace all white pine poles with jack pine. The poles are far less dense, too. More white pine and red pine in subcanopy north of hardwood lake rd. Most of the BA in the stand is from the red pine. BA swings of 100, 90.  Found a planting record card saying northern half of this stand was planted to jack pine in 1925  2016 YOE Notes: #53-039-76, bought by Glawe, all jack pine cut. -Mix of log-sized red pine and pole/sap jack pine that is just starting to reach a merchantable size. Prescribe a treatment when the jack pine has matured.																																																
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<b>43</b>	42140 - Planted Mixed Pine	Sawtimber Well	79.5	80	81-110	N/A	<p>2026 YOE Notes: Diverse sizes; uneven aged stand. Jack pine and aspen far more prevalent in the south and east portions of the stand</p> <p>The red pine poles/small logs and the few log/pole jack pine are 48 years old via the planting record. But the rest of the trees in here are quite a mix; cored: 17" red pine, 80 years 6" white pine, 39 years 21" red pine, 150+ years (core broke)</p> <p>About 10% of the canopy is old-growth/legacy trees</p> <p>And there are some absolutely massive white pines (I did not core these, borer would not reach), around 34" dbh.</p> <p>The XL red pine (23" dbh avg) and white pines (29" dbh avg) make up about 10% of the canopy; about 4% of the canopy are XL red pines, and 6% of the canopy is XL white pines; Mlfi is not letting me accurately represent the data for the white pines.</p> <p>This stand is technically log-sized, given that over 30% of the canopy trees are log-sized. But between all the log-sized tree crowns, the space is full of pole/sap-sized tree crowns.</p> <p>Southeast portion of the stand was planted to red pine in 1976. A prescribed burn was proposed for the same area in 1973, but I can't find records to indicate that it happened, just that it was proposed.</p> <p>Planting card says the west portion of this stand was planted to jack pine in 1925 (SE1/4 of NE1/4 sec 10)</p> <p>Found a planting record card saying that the southwest finger of this stand was planted to jack pine in 1925</p> <p>2016 YOE Notes: Fairly unique stand that is just reaching poletimber size. Records indicate this stand was planted in 1976 (red pine and jack pine were planted). However there is a good representation of supercanopy red and white pine, including scattered pockets of R9. Sap/pole-sized white pine is natural regen, the jack pine and red pine saps/poles were planted. White pine is most prevalent in the NW1/3 of the stand (west of Road 66).</p>																																	
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<b>45</b>	4132 - Aspen, Jack Pine	Poletimber Well	4.6	35	1-50	N/A	<p>2026 YOE Notes: similar to stand 29, the other aspen stand within the greater jack pine stand.</p> <p>-Stand burned in a wildfire and then was salvaged. Twin Lakes Burn Salvage, #53-011-87-01, bought by Ralph Walker.</p> <p>-Scattered aspen mortality, pockets of hypoxylon canker.</p>																											
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<b>46</b>	42200 - Natural White Pine	Poletimber Well	5.1	48	81-110	N/A	2026 YOE Notes: could include as part of surrounding stand if desired.																																																																
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<b>49</b>	42200 - Natural White Pine	Sawtimber Medium	9.1	91	51-80	N/A	2026 YOE Notes: Expanded stand boundaries; species change seems fairly distinct, especially on eastern edge of stand. Goes from northern hardwoods into oak/pine/aspens. Sudden increase of white pine in subcanopy, too. A few pockets of saplings, no overstory.  2016 YOE Notes: -Small clump of bigtooth aspen at SE corner of stand.																																																																
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<b>50</b>	42290 - Natural Mixed Pine	Sawtimber Well	15.2	100	81-110	N/A	2026 YOE Notes: The saplings/poles of white pine are just touching the red pine canopy. Average white pine pole diam = 7.5" dbh. Log-sized white pines show up in eastern half of stand. Canopy trees taller in east half of stand. BA swings of 90, 100, 110. Southwest corner of stand more open, full of saplings.  2016 YOE Notes: #53-013-77, all jack pine and aspen cut out. As a result, the stocking is quite variable. Jack pine is most prevalent in the NW part of the stand. White pine is concentrated mainly in the SE 1/4 of the stand.																																																																
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<b>51</b>	3205 - Mixed Upland Shrub	Nonstocked	2.3		Unspecified	No	2026 YOE Notes: becoming forested; white pine seedlings seeding in 2016 YOE Notes: Filling in with white pine																																																																
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<b>52</b>	4130 - Aspen	Poletimber Well	15.7	35	51-80	N/A	2026 YOE Notes: Hilly/sloped terrain. 2016 YOE Notes: Twin Lakes Burn Salvage, #53-011-87-01, bought by Ralph Walker.-Aspen becomes much smaller and pine more numerous at the south end of the stand.-Trace of red pine and white pine.																																																																										
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<b>53</b>	42110 - Planted Red Pine	Poletimber Well	16.4	36	141-170	N/A	2026 YOE Notes: More quaking aspen on edges.  2016 YOE Notes: #53-001-86-01, Hardwood Lake Jack Pine, clearcut bought by U.S. Plywood Corp., replanted to red pine in 1988. Scattered pockets of aspen have made it to the overstory.																																																																										
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<b>54</b>	3105 - Mixed Upland Herbaceous	Nonstocked	9.1		Unspecified	No	Big open field; southern fifth of it looks like it's regularly mowed and/or vegetation has been removed down to bare sand, and has rock-ringed fire pits; part of the off-site Hardwood Lake Equestrian Campground. The rest of this stand is full of spotted knapweed, and there's some sort of a plow line going around it.																																																																										
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<b>55</b>	4111 - S.Maple, Hard Mast Association	Sawtimber Well	17.2	95	111-140	N/A	2026 YOE Notes: Nice hardwood stand, some massive red oaks. Subcanopy white pine increases towards the north. Oaks also increase towards the north/northwest. Most overstory pine on edges, but some white pine are in the interior of the stand. Many of the maples have cat-face stumps. BA swings of 110, 200, and 90 (133 avg).  Burned in wildfire in 1986, then salvage harvested (Burnt Offerings sale in 1988; selection harvest; marked to cut and/or girdle). Thinned by hand with chainsaw in 1977; took stand from 130 BA to 80 BA.  -White pine along the west edge, trace of red pine along the east edge.																																																																										
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<b>56</b>	4310 - Pine, Oak Mix	Sawtimber Poor	18.7	83	1-50	N/A	2026 YOE Notes: Has parking area. Some massive white pines on edge of lowland. Jack pine dead and dying, but white pine coming up underneath. Lots of jack pine snags and ddw. Next inventory cycle, white pine saps may become overstory. Sheep laurel ground flora. BA swings of 20, 30, and 50.																																																																						
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<b>57</b>	4311 - Pine, Aspen Mix	Poletimber Well	6.7	46	81-110	N/A	2026 YOE Notes: Very poorly formed aspen, but the quality gets better in the westmost third of the stand. More large conifers and diversity in the NE/N portion of the stand. XL red pine and white pine present, but in low numbers (not enough to call this a two-aged stand), and more numerous in the north. I separated the original stand in two, since the quality of aspen north of the equestrian trail is of much higher quality and different composition. 110 BA on avg.																																																																						
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Beech	Low	Variable	Sapling																																																																										
<b>58</b>	42110 - Planted Red Pine	Sawtimber Well	3.1	95	51-80	N/A	2026 YOE Notes: Red pine strip with small saplings underneath. Part of the surrounding rx burns.																																																																						
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<b>59</b>	42110 - Planted Red Pine	Sawtimber Poor	27.2	96	1-50	N/A	2026 YOE Notes: recent harvest, not planted yet. Trace white oak sapling, white pine poles, white pine seedlings.																																																																						
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments					
60	3205 - Mixed Upland Shrub	Nonstocked	59.0	0	Unspecified	Managed Opening	2026 Notes: Black cherry shrubs dominate the stand. I recommend this stand be burned or mowed again to bring it back to a grassy, opened state. The XL oaks and pines make up less than 10% of the canopy space. Larger diameter canopy trees in the west, but scattered super canopy trees (non-black cherry) sprinkled throughout. Some red pine regen in the eastern portion.  2016 YOE Notes: RGS machine brushed this opening in 2016. Burned in 2017.  This stand has been a part of several different timber harvests over the past decades, but its final harvest was done in 1996 with the goal of creating a U-type stand. Tried to leave best red pine on perimeter.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Black Cherry	Full	5 - 10 feet	Tall Shrub	
								Red Pine	Low	>20 feet	Log	
								Jack Pine	Low	>20 feet	Pole	
								Red Oak	Low	>20 feet	Log	
								Basswood	Low	>20 feet	Log	
								Sugar Maple	Low	>20 feet	Log	
61	6127 - Lowland Pine	Poletimber Well	33.5	89	51-80	N/A	2026 YOE Notes: Combined with stand 72 to the south; tree density and size decreases outside of the southeast area. Around the perimeter of the lake and in more open areas of the stand, the ground is leatherleaf on sphagnum moss hummocks. Further from the edge of the lake and especially under trees, the ground flora transitions to have more sedge and blueberry. From what I could see on the shore, the islands in the lake appear to be representative of the mainland. Around the northmost edge of the lake where I was doing inventory, there is a lot of swamp loosestrife (Decodon verticillatus). The swamp loosestrife may continue all around the perimeter of the lake, but I didn't get a chance to check. Swamp loosestrife is native, but it's known for terrestrializing lakes/bodies of water, so it's best to keep off of it and prevent further spread. Swamp loosestrife has been on the edges of this lake since at least 1948, per Michigan Flora's records.  2016 YOE Notes: -Sphagum understory, slowly filling in with conifers. Stand is directly adjacent to Hardwood Lake. No management.					
								Canopy Species	% Cover	Size Class	DBH	Age
								Tamarack	15	Pole/Log	8	
								Jack Pine	5	Log/Pole	10	
								White Pine	65	Log/Pole/XLog	10	89
Sub-Canopy Species	Density	Avg. Height	Size									
Black Spruce	Low	Variable	Sapling									
White Pine	High	Variable	Sapling									
62	500 - Water	Nonstocked	48.0		Unspecified	No	Hardwood Lake.					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**63**      42290 - Natural Mixed Pine      Sawtimber Well      26.3      87      81-110      N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	50	XLog/Log/Pole	21	87
Red Oak	15	XLog/Log	20	
Red Pine	35	XLog/Log	18	

Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	Low	>20 feet	Sapling
Beech	Low	>20 feet	Log
Beech	Low	>20 feet	Pole
Red Pine	Low	Variable	Sapling
Beech	High	Variable	Sapling
White Pine	Low	< 5 feet	Seeding
Ironwood	High	10 - 20 feet	Sapling
Maple Leaved Viburnum	Low	< 5 feet	Tall Shrub
White Pine	High	10 - 20 feet	Sapling
Serviceberry (Juneberry)	Low	5 - 10 feet	Tall Shrub
Black Cherry	Medium	Variable	Sapling
Quaking Aspen	Low	>20 feet	Sapling
Ironwood	Low	>20 feet	Pole

2026 YOE Notes: wide range of white pine diameters than red pine. Some exceptionally large white pine (over 30" dbh). Many large snags and downed dead logs. Small pocket deaths of red pine (5 to 10 trees) sprinkled throughout, but none of the death is recent. These pockets are full of thick sapling growth, and this is where most of the aspen saplings are found. BA can be variable, but averages out to 110 (swings of 140, 100, and 80). 75% canopy closure. Surprised I couldn't find planting records.

- Final Impact Block, #53-019-96-01, bought by Georgia Pacific. Everything cut except white pine, red pine, oak, and hemlock.
- Trace of aspen and red pine regeneration.
- Nice white pine regeneration.

**64**      4110 - Sugar Maple Association      Poletimber Well      22.1      96      81-110      N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	3	Log/XLog	17	
Red Oak	5	XLog/Log	21	
Sugar Maple	50	Log/Pole	10	96
Beech	2	Log/XLog	17	
Basswood	40	Log/Pole	13	

Sub-Canopy Species	Density	Avg. Height	Size
Beech	Low	< 5 feet	Sapling
Ironwood	Low	Variable	Sapling

2026 YOE Notes: Recently thinned. Severe introduction of mullien and invasive thistle. Impressive lack of residual damage. Good range of sizes of trees left. Cored an 11" sugar maple, got 96 rings.

2023 update - this stand was thinned in the winter of 2022-23 in the sale Stilt Root 2 (#53-014-19). Bought by AJD, cut by Don and Gary Haskill. Minor amounts of damage and a few small instances of rutting but good job overall. Average residual ba/acre = 87 square feet. A lot of beech was cut out of this stand, particularly along the west half.

This stand was selected for ash and beech salvage and was sold to Precision in the sale Stilt Root Hardwoods, #53-008-13-01. No harvesting ever took place within the stand and Precision dropped the sale. This stand will be put up for re-bid as most of the beech is still in good enough condition to salvage.

-High quality sugar maple throughout most of this stand. Trace of red maple, bigtooth aspen, red pine, paper birch, white pine, and elm.

comp notes from 1994 say "timber stand improvement with some small sawlogs" (thinning). The edges of this stand were part of the 1996 timber sale Final Impact Block.

Thinned by hand with chainsaw in 1977; took stand from 130 BA to 80 BA



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>65</b>	42290 - Natural Mixed Pine	Sawtimber Well	7.9	89	81-110	N/A	<p>2026 YOE Notes: Planted red pine? Most jack pine in canopy is note dead/dying. More red pine along rd, more white pine along wetland. Some white pine in this stand look like legacy trees. Cored 13.5" red pine, 89 years. BA swings of 150, 60, and 100</p> <p>2016 YOE Notes: Stand transitions to lowland along the southern edge. White pine more dominant in the SE finger of the stand. -Trace of hemlock, red maple, and black spruce.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Bigtooth Aspen	4	Log/Pole	13		Black Cherry	Low		Variable	Sapling
Paper Birch	3	Log/Pole	10		White Spruce	Low		Variable	Sapling
Red Pine	40	Log/XLog/Pole	13	89	White Pine	High		Variable	Sapling
Red Maple	1	Pole/Log	8		Beech	Low		Variable	Sapling
Jack Pine	4	Pole/Log	8		White Oak	Low		>20 feet	Sapling
Quaking Aspen	1	Log	16		Red Maple	Low		Variable	Sapling
White Pine	39	Log/Pole/XLog	15						
Red Oak	8	XLog	24						
<b>66</b>	42110 - Planted Red Pine	Sawtimber Well	8.8	95	81-110	N/A	<p>2026 YOE Notes: True lack of future merchantable regeneration. Overstory more dense in the southern half of this stand.</p> <p>In 1996 (final impact block), removed jack pine, aspen, and low-quality hardwoods, and then where pine blended into hardwood, just favor the best quality. -Small pocket of nice RP regen at the NW corner of stand.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Oak	2	XLog/Log	20		Red Pine	Low		Variable	Sapling
Basswood	2	XLog/Log	18		Red Oak	Low		>20 feet	Sapling
Red Pine	96	XLog/Log	20	95	Black Cherry	High		>20 feet	Sapling
					White Ash	Low		>20 feet	Sapling
					Beech	Low		>20 feet	Log
					White Oak	Low		>20 feet	Sapling
					Ironwood	Medium		>20 feet	Pole
					Beech	High		>20 feet	Sapling
					White Pine	Low		>20 feet	Sapling
					Beech	Low		>20 feet	Pole
					Ironwood	High		>20 feet	Sapling
<b>67</b>	4123 - Red Oak	Sawtimber Well	28.2	97	111-140	N/A	<p>2026 YOE Notes: Stunning oak stand; oaks get smaller in diameter in the south. Most of the regen from harvest is ironwood, but there is some sugar maple regen; hopefully it overtops the ironwood by next inventory cycle; it is at the same height right now. Most of the pine is along the western portion of the stand. Understory/ground flora consists of leatherwood, but browse is extreme. More sugar maple stump sprouts and white pine in subcanopy in the south.</p> <p>2016 YOE Notes: -Final Impact Block, #53-019-96-01, Georgia Pacific. Everything cut except pine, oak, and hemlock. -Pine mostly around the perimeter of the stand. -Heavy deer and elk use.</p> <p>Notes from 2004 say stand was treated in 1999, was a mark to leave, favoring oak, beech, hemlock, quality hardwoods, and leaving some white pine groups. Some oak are dead.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
White Pine	15	Log	13		Hemlock	Low		>20 feet	Log
Red Oak	75	XLog/Log	21	97	Sugar Maple	Low		>20 feet	Sapling
Red Pine	10	Log	15		Black Cherry	Medium		Variable	Sapling
					Beech	High		Variable	Sapling
					Leatherwood	Full		< 5 feet	Tall Shrub
					White Pine	Medium		Variable	Sapling
					Red Pine	Low		>20 feet	Sapling
					Ironwood	Full		>20 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																															
<b>68</b>	42210 - Natural Red Pine	Sawtimber Medium	4.2	95	1-50	N/A	-Final Impact Block, #53-019-96-01, everything cut except white pine, red pine, oak, and hemlock.																																															
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<b>69</b>	4130 - Aspen	Sawtimber Well	6.5	61	111-140	N/A	2026 YOE Notes: Surprised I couldn't find a cutting record for this stand. Definitely looks like someone cut it, leaving oaks and pine. Some massive white pines. Cored 21.5" red oak, only read 95 rings, but I missed the middle of the core, so it's at least 100.																																															
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<b>73</b>	42200 - Natural White Pine	Sawtimber Well	3.9	117	111-140	N/A	2026 YOE Notes: Some massive white pine; 30" diameter. 2016 YOE Notes: -Leave unmanaged as of now for aesthetics.																																															
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<b>76</b>	3205 - Mixed Upland Shrub	Nonstocked	16.6	0	Unspecified	Managed Opening	2026 YOE Notes: white pines, hemlocks, black cherry present.																																															
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**77** 4110 - Sugar Maple Association Sawtimber Well 561.9 92 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Hemlock	1	XLog/Log/Pole	20	
White Pine	1	Log/Pole	16	
Sugar Maple	50	Log/Pole/XLog	12	92
Basswood	42	Log/Pole/XLog	10	
Beech	1	Log/XLog	16	
Red Oak	5	XLog	24	

Sub-Canopy Species	Density	Avg. Height	Size
White Ash	Full	Variable	Sapling
Beech	Medium	Variable	Sapling
Hemlock	Low	>20 feet	Log
Sugar Maple	Full	< 5 feet	Seeding
Ironwood	Full	Variable	Sapling

2026 YOE Notes: This stand is a combination of stands 81, 77, and 91. BA average of 110. I did a snaking walkthrough of the stand and found so much inconsistency/variability within the stand (likely due to decades of various harvests, salvages, etc), but where the stand lines were previously very clear and obvious, it is not the case anymore. Before this stand is prescribed in 10 or 20 years, a significant, dedicated effort of stand delineation and plot-taking needs to happen. The stand switches between significant areas of small logs (10/12" dbh), large logs (16/18"dbh), and large pulp (9"dbh) as the dominant overstory tree size. There are a few areas of this stand that are completely dominated by oak and/or white pine. Generally, there's a bit more sugar maple than basswood in the canopy, and the sugar maple has a larger diameter than the basswood, on average. Around the edges of the stand, maple and oak tend to outnumber other species. More white pine XL trees and ironwood poles on the edges, too. The oak in this stand is not evenly dispersed. Be on the lookout for small vernal pools throughout this area. The very southeast portion of this stand could be typed out as an oak stand, if desired. It's mostly XL oak and small sugar maple logs/large poles, and much less basswood than the rest of the stand. The only area that seemed to stay consistent was the area on the north side of Bobcat Trail, east of the ash salvage area (12" sugar maple avg, BA avg of 110) and a very thick subcanopy of ironwood and ash. Ash is gone as an overstory species, beech overstory trees are mostly dead/on their way out due to their respective diseases. Trace red pine, bigtooth aspen, and paper birch in the overstory. The ground is covered in 4" sugar maple seedlings. Extreme deer and elk browse in this stand. This stand contains two ash salvages, one on each side of Bobcat Trail; variability increases in these areas: sometimes this area is full of large sugar maple logs, other times it looks as if an entire area of subcanopy sugar maple poles were shocked and never quite recovered. Numerous logging roads still present; berms look good. I did my best to map the ones I could find, but I'm sure there are more. I did delineate the southwest portion of this hardwood complex into its own stand; higher quality trees, larger trees, higher BA, more hemlock and oak.

**78** 3105 - Mixed Upland Herbaceous Nonstocked 2.4 Unspecified No

Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	Low		Sapling
Mixed Grasses	Full		Non-Wood

**79** 6229 - Mixed lowland shrub Nonstocked 9.7 Unspecified No

Sub-Canopy Species	Density	Avg. Height	Size
Ninebark	Low		Tall Shrub
Alder	Medium	Unspecified	Tall Shrub
Jack Pine	Trace		Pole
Quaking Aspen	Trace		Pole
Balsam Poplar	Trace		Sapling
White Spruce	Low		Pole
Willow spp.	High	Unspecified	Tall Shrub

2026 YOE Notes: Pigeon River shrub corridor. The northern portion of the stand is a willow thicket, but as you move south, more tag alder, red osier dogwood, ninebark, and large, mature spruce trees line the bank. Ground is full of grass and sedge. Some herbaceous wetland plants are found on the banks; blue vervain, joe-pye weed, possibly poison or water hemlock.





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments					
80	3105 - Mixed Upland Herbaceous	Nonstocked	11.6		Unspecified	No	West area is the old Swepi well site, St Corwith 2-12, plugged in 2001. It has now been planted with wildlife food crops. Some erosion issues along the north end near the road. Popular among elk.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Mixed Grasses	Full		Non-Wood	
								Black Cherry	Low		Tall Shrub	
							Spotted Knapweed	Full	Unspecified	Non-Wood		
82	4130 - Aspen	Poletimber Well	36.8	55	141-170	N/A	2026 YOE Notes: Adjusted stand lines based on pit and mound topography, pooled water, cedar, type change. Also extended stand boundaries into the previous extent of the adjacent southern aspen stand due to the size of the trees along the edges of that stand. Some massive yellow birch and red maple on north part of the east edge of stand. XL white pine east of bog. Small pocket of blowdown (maybe a tenth of an acre or less). A few pockets of mostly submerchantable-size timber exist in this stand. Aspen quality increases in the north and west; also tends to have a higher bigtooth component. Stand is almost log-sized. Slopes down to lowland in the east. Many red maple poles and saplings made it to the canopy. Ground is covered in ground pine and clubmoss (both lycopodes). Switches from aspen dominated to more red maple dominated along the lowland transition. Trace basswood, red pine, white oak, red oak, and sugar maple. BA swings of 160, 70, 160, and 140.  Very active Red-shouldered Hawks in northeast portion of stand; unsure if random or has nest or scouting out area for nest. It's a bit early for nesting. 2016 YOE Notes: Trace of white oak, red oak, black cherry, birch, hemlock, cedar, sugar maple, basswood, white pine, red pine.					
								Canopy Species	% Cover	Size Class	DBH	Age
								Red Maple	12	Pole/Sap/Log	6	
								White Pine	10	XLog/Log/Pole	19	
								Red Oak	1	Log	15	
								Quaking Aspen	59	Pole/Log	9	55
								Black Cherry	1	Pole/Sapling	6	
								Bigtooth Aspen	10	Log/Pole	12	
								Balsam Fir	5	Pole/Log/Sap	8	
								Sugar Maple	1	Pole/Log	8	
								Hemlock	1	Log	16	
								Sub-Canopy Species	Density	Avg. Height	Size	
								White Pine	Low	Variable	Sapling	
								Hemlock	Low	>20 feet	Pole	
Sugar Maple	Low	Variable	Sapling									
Balsam Fir	High	>20 feet	Pole									
White Ash	Medium	Variable	Sapling									
Balsam Fir	High	>20 feet	Sapling									
Beech	Low	Variable	Sapling									
Ironwood	Low	Variable	Sapling									
White Oak	Low	>20 feet	Pole									
White Pine	Low	>20 feet	Pole									
83	3205 - Mixed Upland Shrub	Nonstocked	1.2		Unspecified	Managed Opening	Stand is covered by black cherry shrub. Extreme browse.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								White Pine	High	10 - 20 feet	Sapling	
								Red Maple	Trace		Sapling	
								Bigtooth Aspen	Trace		Sapling	
								Mixed Grasses	High		Non-Wood	
								Ironwood	Trace		Sapling	
								Black Cherry	Medium	>20 feet	Pole	
								Blackberry/Raspberry	High		Tall Shrub	
								Bracken Fern	High		Non-Wood	
84	6225 - Bog	Nonstocked	1.1		Unspecified	No	2026 YOE Notes: willow and winterberry around the perimeter. Interior is full of leatherleaf and water sedge.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Sedges	High	Unspecified	Non-Wood	
								Leatherleaf	High		Tall Shrub	
								Willow spp.	Medium	Unspecified	Sapling	
Michigan Holly	Medium	5 - 10 feet	Tall Shrub									



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>86</b>	3105 - Mixed Upland Herbaceous	Nonstocked	6.8		Unspecified	No	Stand is becoming forested; need to bring back to non-forested.				
								Sub-Canopy Species	Density	Avg. Height	Size
								White Oak	Trace		Sapling
								Bracken Fern	High		Non-Wood
								Red Maple	Trace		Pole
								Balsam Fir	Low	>20 feet	Sapling
								Red Oak	Trace		Sapling
								White Pine	Medium	10 - 20 feet	Sapling
								Spotted Knapweed	High	Unspecified	Non-Wood
								Black Cherry	High	>20 feet	Pole
								Mixed Grasses	High		Non-Wood
								Red Pine	Low	5 - 10 feet	Sapling
Blackberry/Raspberry	Medium		Tall Shrub								

<b>88</b>	3105 - Mixed Upland Herbaceous	Nonstocked	2.7		Unspecified	Managed Opening	Old Swepi well site, St Corwith 1-12, plugged in 2001. It has now been planted with wildlife food crops. Popular with elk.				
								Sub-Canopy Species	Density	Avg. Height	Size
								Mixed Grasses	High	Unspecified	Non-Wood
Spotted Knapweed	Full	Unspecified	Non-Wood								

<b>90</b>	6120 - Lowland Cedar	Sawtimber Well	40.0	105	171-200	N/A	<p>2026 YOE: Diverse and somewhat variable stand. Standing water throughout. The aspen are dying, and the black ash are all dead. Small blow downs and tip ups are common. There are a handful of XL white pines, some in the 30" range. Cedar diameter increases as you move north. Hemlock numbers seem the highest in the northeast and far south. Northwestern edge of stand is full of red maple in the canopy, but moving southeast, the stand transitions to mostly cedar, then into paper birch and cedar with a smaller amount of red maple. South from here, there's a sudden increase in black spruce in the canopy, but moving south beyond that it turns back into cedar and some hemlocks.</p> <p>2016 YOE Notes: A very unique and diverse stand however timber quality is low. Undulating pit and mound topography throughout with the majority being very wet lowland. At least 1 small stream meanders through the north part of the stand, may be more. A few small inclusions of aspen and red maple along the western edge. Other species that were present but rare included yellow birch, quaking aspen, red oak, white spruce, basswood, and elm. Leave this stand unmanaged.</p> <p>Notes from 1994 mention this being an important deer yard and to not overcut, leave all cedar, hemlock, and hardwood. Looks like it was proposed for selection cut around that time. -Heavy deer use, tracks everywhere.</p>					
								Canopy Species	% Cover	Size Class	DBH	Age
								Yellow Birch	2	Log/Pole/XLog	10	
								White Pine	4	XLog	23	
								Quaking Aspen	3	Log/XLog	17	
								Hemlock	4	Log/Pole/XLog	15	
								Red Maple	15	Log/Pole/XLog	12	
								Black Spruce	5	Log/Pole/XLog	13	
								Balsam Fir	1	Pole/Log	9	
								Paper Birch	10	Pole/Log	9	
								Balsam Poplar	1	XLog	18	
								Northern White Cedar	55	Log/Pole/XLog	10	105



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>92</b>	4130 - Aspen	Poletimber Well	25.6	45	1-50	N/A	2026 YOE Notes: Quaking aspen overtopping balsam fir and white pine. Trace hemlock. A few wet pockets throughout and a drainage. Stand slopes down to the east, and the eastern edge is wet. Most of the aspen in this stand are small diameter, except for the entire western edge, where the aspen increase several inches in diameter to the point where they are borderline log. Trace white oak saplings, red oak log/pole. BA swings of 30, 40, and 30. This stand hasn't grown much in 10 years...2016 YOE Notes: #53-033-76-01, clearcut by Champion.- Pockets of wet ground, particularly along the east edge. Hardwoods pick up along the southern and western edges. -There is a strip of larger aspen along the western edge of the stand, however the remainder of the stand is small poletimber that has just reached merchantability. Hold at least ten years.-Trace of red pine, white pine, red oak, white oak, paper birch, sugar maple.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Spruce		1	Pole/Sap/Log	9		Balsam Fir		Full	>20 feet	Sapling	
White Pine		1	Log/Pole	10		Balsam Fir		High	>20 feet	Pole	
Red Maple		5	Pole/Sap/Log	5							
Bigtooth Aspen		3	Pole/Log/Sap	7							
Quaking Aspen		85	Pole/Sapling	5	45						
Balsam Fir		5	Sapling/Pole	4							

<b>93</b>	4311 - Pine, Aspen Mix	Sawtimber Poor	26.9	110	81-110	N/A	2026 YOE Notes: Aspen now considered part of the canopy; touching XL pine crowns. Most white pine regen is just under the aspen. Trace red oak poles, red pine poles, quaking aspen poles, white pine poles, and paper birch poles/logs. Variable aspen/other regen diameters. Scattered hemlock in the subcanopy. Western portion of the stand had fewer supercanopy pines. Middle of this stand regenerated to majority pine; the edges of the stand are aspen-regeneration dominated. Most of the basal area in my swings are the XL pine. BA swings of 70, 110, 130. 32" white pine present. More balsam fir regeneration towards the east/northeast. Cored 27.5" white pine, could only count 103 rings because my borer is not long enough. The 110 yrs from the previous inventory is probably accurate. Despite the massive size, the white pine had thick growth rings for much of its life.  2016 YOE Notes: -53-033-76-01, clearcut and all pine was left, bought by Champion. -Nice pockets of pine regeneration. Aspen is just reaching merchantable size. Trace of hemlock and red oak in the stand. -Future management should retain the large pine in this stand and protect some of the nicer pockets of pine regeneration. Average ba/acre of the large pine component roughly 30 sq ft per acre.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		3	Pole/Sap/Log	5		Ironwood		Low	Variable	Sapling	
Bigtooth Aspen		40	Pole/Sap/Log	7	45	Red Pine		Low	>20 feet	Sapling	
Red Pine		7	XLog	20		White Pine		Low	>20 feet	Pole	
White Pine		50	XLog	26	110	Red Pine		Low	>20 feet	Pole	
						White Pine		Full	Variable	Sapling	
						Hemlock		Low	>20 feet	Pole	
						Balsam Fir		Medium	>20 feet	Sapling	
						Beech		Medium	5 - 10 feet	Sapling	
						White Pine		Medium	< 5 feet	Seeding	
						Hemlock		Low	>20 feet	Log	

<b>95</b>	42140 - Planted Mixed Pine	Sawtimber Medium	6.6	99	51-80	N/A	2026 YOE Notes: Separated as its own stand. Band of mixed conifers of all sizes and ages between upland and lowland. Sparse, open canopy. Southern extent of this stand is wet. The finger that juts into the east was rollerchopped in 1977.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		55	Log/XLog/Pole	16	99	Red Pine		Low	Variable	Sapling	
Jack Pine		30	Pole/Log/Sap	7	55	Black Cherry		Medium	>20 feet	Pole	
White Pine		15	Pole/Log/XLog	9		Jack Pine		Medium	>20 feet	Sapling	
						White Pine		Medium	>20 feet	Sapling	