



# Compartment Review Presentation

## Pigeon River Country Forest Management Unit

Compartment 53010

Entry Year 2025

Acreage: 1,788

County Cheboygan

Management Area: Wolverine Moraines

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**Stand Examiner:** Greg Rekowski

### **Legal Description:**

T33N R01W Sec. 3, 10, 11, 14 and 15

### **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:**

Flat to gently rolling terrain. Uplands are predominantly sandy soil types with Cheboygan loamy sands being the most common, followed by lesser amounts of Riggsville loamy sands, Emmet sandy loams, and Kalkaska sands. Lowlands are characterized by a variety of different muck soil types.

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

Solid State ownership throughout the Compartment as well as throughout the surrounding area.

### **Unique Natural Features:**

Multiple red-shouldered hawk nests have previously been identified in this Compartment. A great blue heron rookery was previously documented in this Compartment as well, but was not found during field inventory. Wood turtles are known to occur in this Compartment.

### **Archeological, Historical, and Cultural Features:**

None have been formally identified. Foundation remnants of an old logging camp, known as Camp 9, can be found in Section 15. An old railroad grade passes through Sections 11 and 14.

### **Special Management Designations or Considerations:**

None at this time, with the exception of cold water stream designations, which are described in the Fisheries section below.

### **Watershed and Fisheries Considerations:**

West McMasters Creek, which originates in Section 15, has been designated as a cold water stream and flows east to feed McMasters Creek, which is also a cold water stream and tributary to the Black River. Additional small creeks and drainages are present throughout the Compartment.

### **Wildlife Habitat Considerations:**

Management in this Compartment will provide early successional habitat for deer, woodcock, grouse and beaver and late successional habitat for black throated blue warbler and pileated woodpecker. Openings will be maintained or restored to provide habitat for elk and other species.

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

No known potential exists for commercial metallic mineral production in this part of the State. All existing mineral activity is well outside the Compartment. Potential for sand & gravel exists in the Compartment, but commercial development is not allowed per the PRC Oil and Gas Policy, as further defined in the PRC Concept of Management. The Antrim Shale is thinning to the north and may have limited potential for gas production. The Silurian reef trend lies just to the southeast. Historically, a few wells drilled around the compartment did test for Silurian reefs but were all dry holes. There is low probability of reef reservoirs occurring beneath the Compartment, but without access to industry seismic data, the potential can't be ruled out. State land in the Compartment and surrounding area cannot be utilized for drilling operations, so oil & gas development opportunities are limited. Any decisions on future mineral exploration and development within the compartment shall be consistent with the Oil and Gas Policy and Concept of Management for the Pigeon River Country. The State does not own all the mineral rights within the Compartment.

### **Vehicle Access:**

There is good access to most, if not all, of the Compartment via county and State forest roads. Closed roads, either gated or bermed, are present throughout the Compartment and provide access for forestry and wildlife purposes.

**Survey Needs:**

None required.

**Recreational Facilities and Opportunities:**

The Shore To Shore Equestrian Trail and Midland To Mackinaw Hiking Trail runs up along the west side of the Compartment, following Roads 17 and 32, and Clearing Road.

**Fire Protection:**

Access is good in case of any suppression efforts, though the area is generally at low risk to any wildfire potential.

**Additional Compartment Information:****The following reports from the Inventory are attached:**

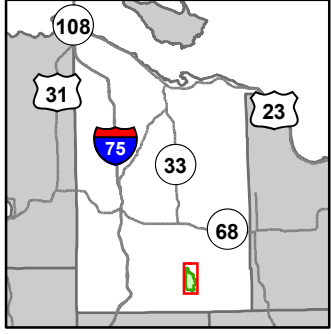
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

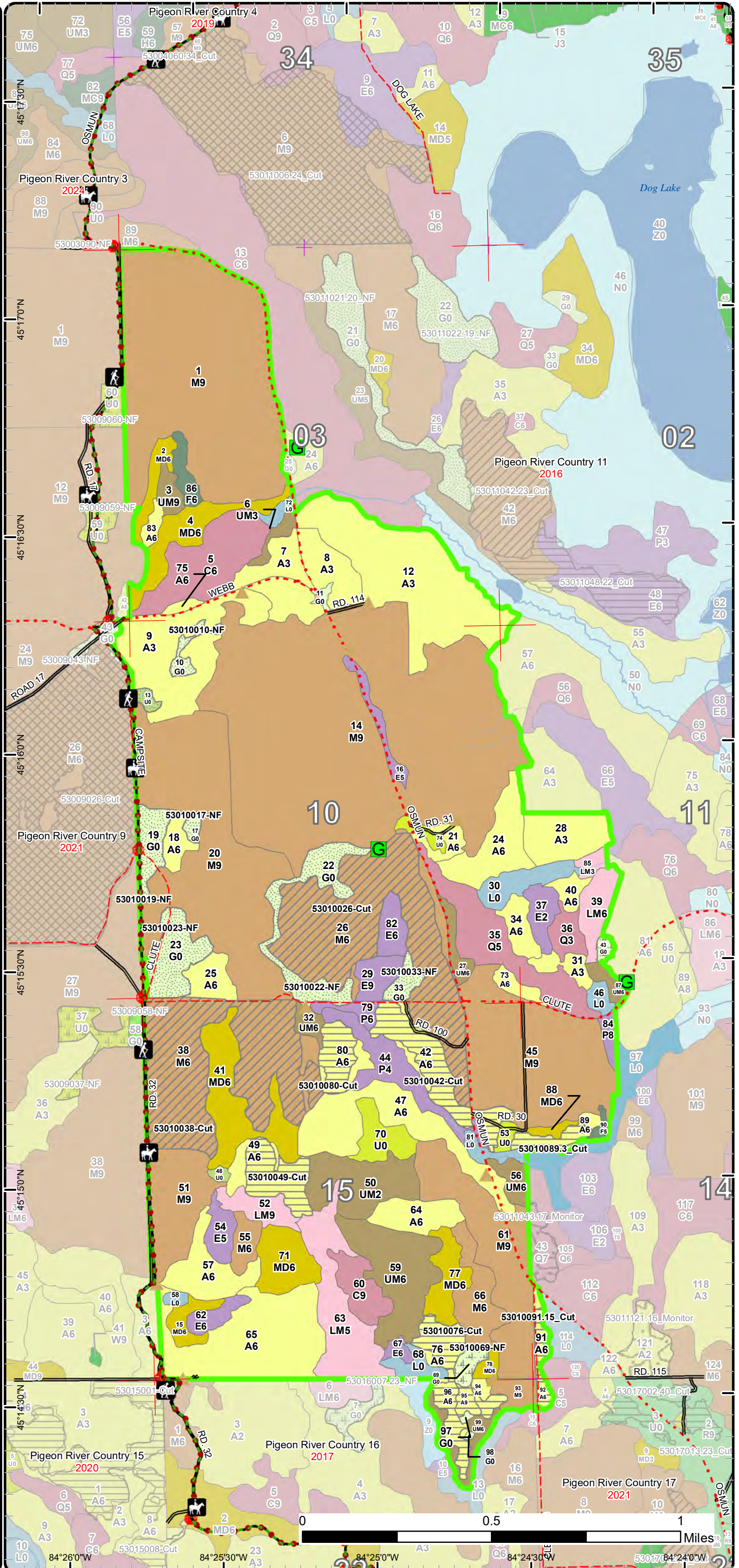
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

Compartment: 10  
 T33N, R01W, Sec. 02, 03, 09-11, 14, 15, 22  
 County: Cheboygan  
 Unit: Pigeon River Country  
 Mgmt Area: Wolverine Moraines  
 YOE: 2025  
 Acres: 1787.9 GIS Calculated  
 Examiner: Greg Rekowski  
 Map Revised: 6/14/2023  
 Map Phase: Review

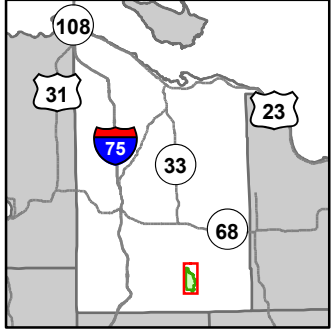


- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Hiking Trails
- Horse Trails
- Designated Hiking Trails
- Designated Equestrian Trails
- Designated Multi-Use Trails
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Berms
- G Gate
- STOP Sign
- Compartment Boundary
- Other Treatment - See Comments
- Clearcut (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Mowing
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 622 - Lowland Shrub

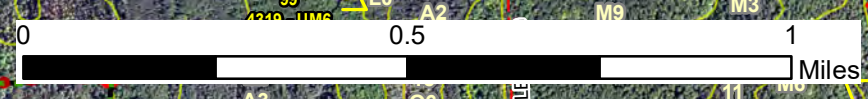
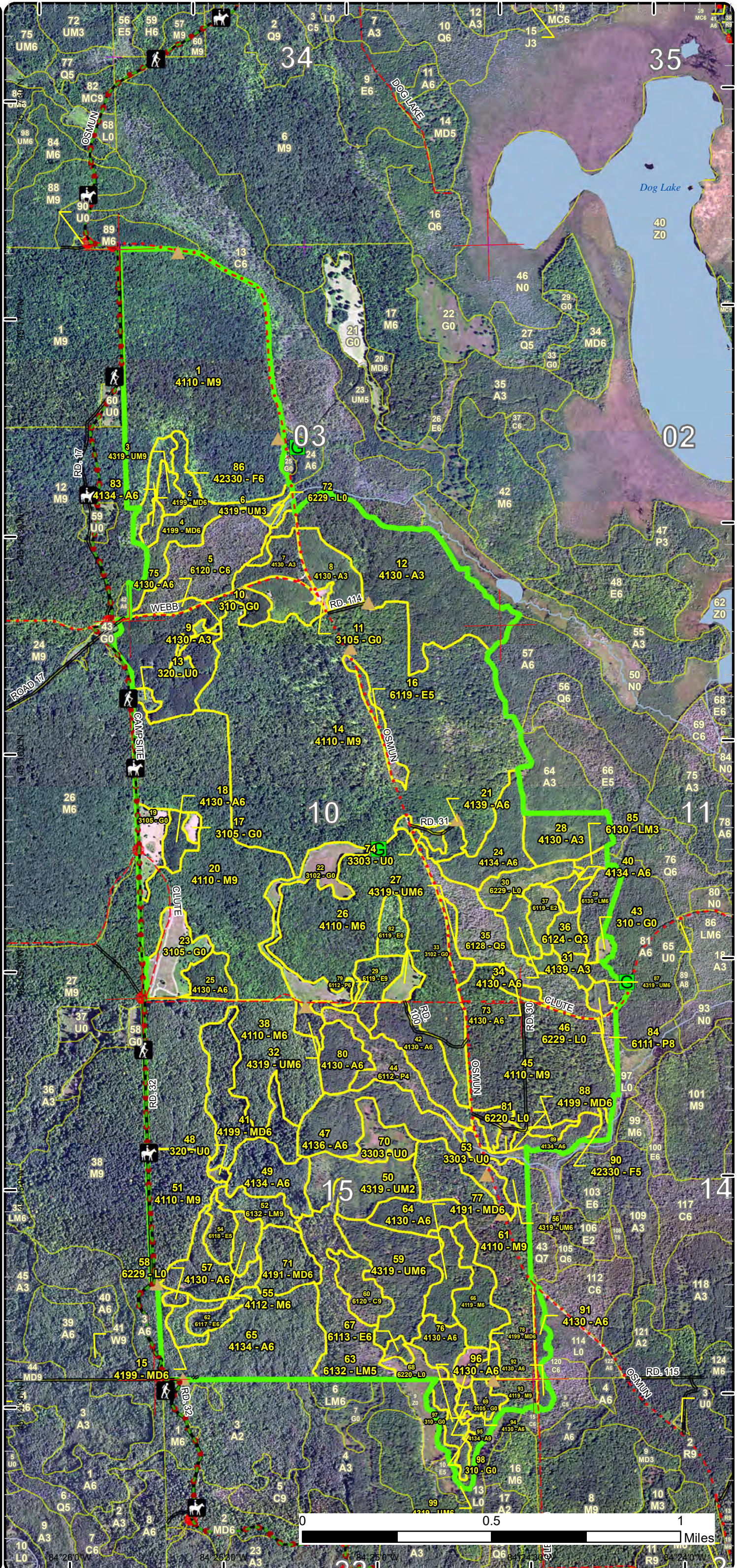


# Stand Boundary Map

Compartment: 10  
 T33N, R01W, Sec. 02, 03, 09-11, 14, 15, 22  
 County: Cheboygan  
 Unit: Pigeon River Country  
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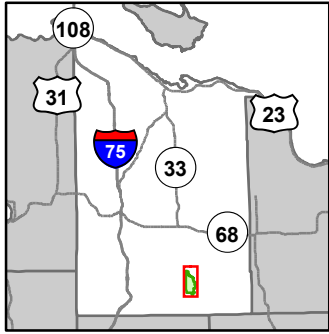
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- + Remonumented Section Corners
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- Stand Boundaries
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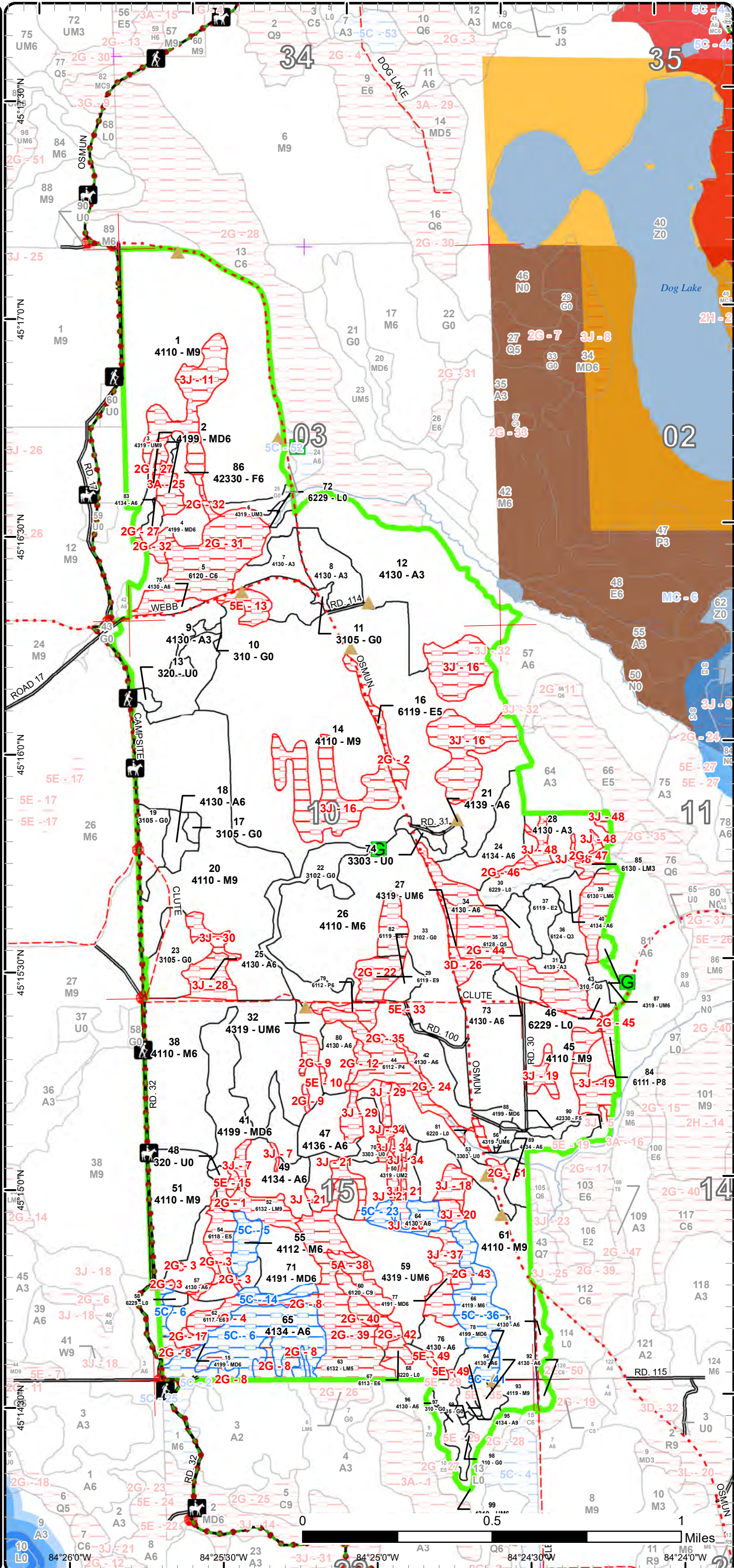
84°26'0"W 84°25'0"W 84°24'0"W

# Special Conservation Areas

Compartment: 10  
 T33N, R01W, Sec. 02, 03, 09-11, 14, 15, 22  
 County: Cheboygan  
 Unit: Pigeon River Country  
 Mgmt Area: Wolverine Moraines  
 YOE: 2025  
 Acres: 1787.9 GIS Calculated  
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 Map Phase: Review



- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- County - Gravel Road
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- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Berms
- Gate
- Sign
- Compartment Boundary
- Available w/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable
- 2G: Too wet (sensitive soils, does not include access issues)
- 3A: Conservation Values incompatible with harvest at this time
- 3D: Recreational / Scenic values
- 3J: Water quality / BMPs (stream, river, or lake)
- 5A: Not able to obtain desirable regeneration
- 5E: Long-Term Retention
- Stand Boundaries
- Ecological Reference Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- Non-Dedicated Natural Areas and National Natural Landmarks
- High Priority Trout Stream Buffer
- Wildlife Management Areas



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	118	23	23	86	170	0	0	2	0	0	0	0	0	0	0	0	0	422
Cedar	0	0	0	0	0	0	0	0	0	0	0	30	0	11	0	0	0	0	41
Herbaceous Openland	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
Low-Density Trees	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Lowland Aspen/Balsam Poplar	0	0	0	0	0	4	0	0	21	0	0	0	0	0	0	0	0	0	25
Lowland Conifers	0	0	0	0	6	0	0	0	0	29	0	0	0	0	0	0	0	0	35
Lowland Deciduous	0	0	0	7	0	0	2	0	21	5	0	5	0	0	0	0	0	0	40
Lowland Mixed Forest	0	0	0	0	3	0	0	42	0	9	0	0	0	0	0	0	0	0	53
Lowland Shrub	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Mixed Upland Deciduous	0	0	0	0	32	50	0	0	6	0	0	0	0	0	0	0	0	0	88
Northern Hardwood	0	0	0	0	0	16	0	0	6	0	0	862	0	0	0	0	0	0	884
Upland Mixed Forest	0	0	0	24	31	11	0	5	5	4	4	4	0	0	0	0	0	0	88
Upland Shrub	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Upland Spruce/Fir	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
<b>Total</b>	<b>105</b>	<b>118</b>	<b>23</b>	<b>54</b>	<b>158</b>	<b>258</b>	<b>2</b>	<b>47</b>	<b>61</b>	<b>47</b>	<b>4</b>	<b>901</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1788</b>



## Report 2 – Treatment Summary

### Acres of Harvest

Commercial Harvest - 242  
Harvests with Site Condition - 0  
Next Step Harvest - 0  
Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	74	0	0	0	0	0	0	0	0	74
Northern Hardwood	0	0	0	0	0	167	0	0	0	167
<b>Total</b>	<b>74</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>167</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>242</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	242	0	0	0	0	0	0	0	60	302
Next Step	0	0	0	0	0	0	74	0	0	74
<b>Total</b>	<b>242</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>74</b>	<b>0</b>	<b>60</b>	<b>376</b>



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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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**Proposed Treatments:**

<b>10</b>	<b>53010010-NF</b>	3.4	310 - Herbaceous Openland	Nonstocked	Unspec ified	NonForestMgt	Mowing	310 - Herbaceous Openland		No
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Prescription Maintain the non-forested condition of this stand either through burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2024

<b>13</b>	<b>53010013-NF</b>	1.9	320 - Upland Shrub	Nonstocked	Unspec ified	NonForestMgt	Mowing	320 - Upland Shrub		No
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Prescription Maintain the non-forested condition of this stand either through burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2024

<b>17</b>	<b>53010017-NF</b>	1.8	3105 - Mixed Upland Herbaceous	Nonstocked	Unspec ified	NonForestMgt	Mowing	310 - Herbaceous Openland		No
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Prescription Maintain the non-forested condition of this stand either through burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2024





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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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19	53010019-NF	9.1	3105 - Mixed Upland Herbaceous	Nonstocked	Unspecified	NonForestMgt	Mowing	310 - Herbaceous Openland		No
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Prescription Maintain the non-forested condition of this stand either through burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2024

22	53010022-NF	18.6	3102 - Grass	Nonstocked	Unspecified	NonForestMgt	Mowing	310 - Herbaceous Openland		No
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Prescription Maintain the non-forested condition of this stand either through burning, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2024

23	53010023-NF	15.9	3105 - Mixed Upland Herbaceous	Nonstocked	Unspecified	NonForestMgt	Mowing	310 - Herbaceous Openland		No
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Prescription Maintain the non-forested condition of this stand either through burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2024



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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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33	53010033-NF	4.2	3102 - Grass	Nonstocked	Unspecified	NonForestMgt	Mowing	310 - Herbaceous Openland		No
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Prescription Maintain the non-forested condition of this stand either through burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2024

38	53010038-Cut	81.1	4110 - Sugar Maple Association	Poletimber Well	100	111-140	Harvest	Crown Thinning	411 - Northern Hardwood	Even-Aged	No
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Prescription Crown thin to 80-90 square feet. Marking should focus on removing suppressed trees under 12" DBH as well as any high risk sawlog trees.

Specs: Maintain large diameter, older trees (20"+ DBH). Maintain current ratio of sugar maple and basswood. No canopy gaps at this time. Cut all beech except leave any resistant trees or any large diameter wildlife trees. Do not mark any rare species in the stand such as birch, oak, pine, hemlock, and elm. Exclude all wet areas (currently excluded in the site conditions layer).

Next Step

Treatments:

Acceptable

Regen:

Other

Add bark slip spec. Add recreation trail specs as the Shore to Shore trail follows Road 32.

Comment:

Site Condition

Proposed Start Date: 10/1 /2024

42	53010042-Cut	21.0	4130 - Aspen	Poletimber Well	43	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
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Prescription Clearcut with retention. Add retention along wet areas on the west edge as well as the small pocket of hardwoods at the far northeast end (both areas already excluded). Do not cut cherry or ash > 5" DBH. Protect all serviceberry, it may be worth marking to leave the larger diameter stems to aid in identification when harvesting. Do not cut rare species in the stand such as paper birch, red pine, and white pine. Mark scattered groups of trees (3-5) as "push-over" trees for drumming logs and brush piles.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Full-stocked stand of aspen with any additional mix of species being acceptable.

Regen:

Other

Expect the west edge of the treatment boundary to shift significantly due to wet ground, potentially in excess of the 25% guidelines. The treatment boundary on this side has been approximated to exclude wet areas but will not be exactly the same as on-the-ground conditions.

Comment:

Site Condition

Proposed Start Date: 10/1 /2024



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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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43	53010043-NF	1.6	310 - Herbaceous Openland	Nonstocked		Unspecified	NonForestMgt	Other - Specify	310 - Herbaceous Openland	No
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Prescription Maintain the non-forested condition of this stand either through burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2024

49	53010049-Cut	14.2	4134 - Aspen, Spruce/Fir	Poletimber Well	43	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
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Prescription Clearcut with retention. Do not cut any of the following species which may be present in trace amounts in the stand; birch (paper/yellow), cedar, white pine, white spruce, and elm. Also do not cut any black cherry over 5" DBH. Mark scattered clumps of trees to serve as cut and leave trees for drumming logs and coarse woody debris, larger diameter maple and fir would be preferred.

Two wet drainages have been excluded from the treatment boundary (see site conditions layer), expect these boundaries to shift slightly based on actual ground conditions. Retention will be the far west side of the stand adjacent to the small U type (already excluded and in the site conditions layer).

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Fully-stocked stand dominated by aspen with any additional mix of species being acceptable.

Regen:

Other Access should be from the old closed road to the northeast of the stand. Do not enter the stand from the U type on the west side. The U type Comment: is the site of an old logging camp and may have archaeological significance.

Site Condition

Proposed Start Date: 10/1 /2024

69	53010069-NF	3.8	3105 - Mixed Upland Herbaceous	Nonstocked		Unspecified	NonForestMgt	Other - Specify	310 - Herbaceous Openland	No
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Prescription Maintain the non-forested condition of this stand either through burning, planting, herbicide, or mechanical means.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2024



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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>76</b>	<b>53010076-Cut</b>	8.0	4130 - Aspen	Poletimber Well	48	141-170	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
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Prescription Specs: Clearcut. Add area retention along the swamp edge in a feathered fashion (already excluded in the site conditions layer) and capturing some of the larger spruce. Do not cut any incidental white pine. Mark scattered groups of trees (3-5) as "push-over" trees for drumming logs and brush piles.

Next Step: Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Regen: Fully-stocked stand dominated by aspen with any additional mix of species being acceptable.

Other Comment: Winter cut only due to wood turtle observations in this area. It is likely that the northern treatment edge can be pushed further north. Stop the treatment when wet ground appears and composition shifts towards more birch/maple/hemlock.

Site Condition

Proposed Start Date: 10/1 /2024

<b>80</b>	<b>53010080-Cut</b>	9.2	4130 - Aspen	Poletimber Well	43	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
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Prescription Specs: Clearcut with retention. Do not cut elm of any size, and do not cut white ash or black cherry greater than 5" DBH. Mark cut and leave trees for drumming logs. Exclude wet areas along the east and north edge, use red-osier dogwood as an indicator of soils that are too wet. The treatment boundary exclusion has already been made in MiFI but expect it to change. Exclude a small area of pure hardwoods along the west edge as retention (desired area is in site conditions layer). A small drainage may also be present in the interior of the north half, draining to the east/northeast. Exclude this as well if present.

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

Treatments:

Acceptable Regen: Fully-stocked stand dominated by aspen with any additional mix of species being acceptable.

Other Comment: Winter only cut due to wet ground.

Site Condition

Proposed Start Date: 10/1 /2024

<b>89</b>	<b>53010089.3_C ut</b>	5.3	4134 - Aspen, Spruce/Fir	Poletimber Well	48	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
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Prescription Specs: Clearcut with retention. Do not cut cedar, hemlock, or birch, which are only present in trace amounts. Leave a small strip of retention on the southeast side in an area dominated by fir to serve as a stream buffer (area has already been excluded). Exclude the large diameter white spruce on the west edge of the stand next to the U type. Mark cut and leave trees for drumming logs.

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

Treatments:

Acceptable Regen: Fully-stocked stand dominated by aspen with any additional mix of species being acceptable.

Other Comment: Exclude areas of young hardwoods along the north edge of the treatment, expect this boundary to change. The far eastern end of the stand is a wet drainage/vernal pool area that has been excluded from the treatment boundary, do not extend the treatment into this area.

Site Condition

Proposed Start Date: 10/1 /2024



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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>91</b>	<b>53010091.15_</b> <b>Cut</b>	3.4	4130 - Aspen	Poletimber Well	46	111- 140	Harvest	Clearcut	413 - Aspen	Even-Aged	No
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Prescription Clearcut with no area retention due to the small size of the stand. Leave incidental cedar (of any size) and any black cherry greater than 5" DBH. Exclude all wet areas so expect the east boundary to shift somewhat. Exclude the area of pure hardwoods to the north (already excluded from treatment boundary). Mark scattered trees as "push-over" trees for future drumming logs.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Fully-stocked stand dominated by aspen with any additional mix of species acceptable.

Regen:

Other Treat with adjacent aspen stand to the west in Compartments 10, 16, and 17.

Comment:

Site Condition

Proposed Start Date: 10/1 /2024

<b>92</b>	<b>53010092.16_</b> <b>Cut</b>	1.7	4130 - Aspen	Poletimber Well	46	111- 140	Harvest	Clearcut	413 - Aspen	Even-Aged	No
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Prescription Clearcut with no area retention due to the small size of the stand. Leave incidental cedar (of any size) and any black cherry greater than 5" DBH. Exclude all wet areas so expect the east boundary to shift somewhat. Exclude the small area of blowdown and beaver activity along the south edge. Mark scattered trees as "push-over" trees for future drumming logs.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Fully-stocked stand dominated by aspen with any additional mix of species being acceptable.

Regen:

Other Treat together with stand 113 to the north in Comp 11, and with adjacent aspen stands to the west in Comps 10 and 16.

Comment:

Site Condition

Proposed Start Date: 10/1 /2024

<b>94</b>	<b>53010094.17_</b> <b>Cut</b>	2.1	4130 - Aspen	Poletimber Well	41	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
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Prescription Clearcut all species except for any cherry over 5 inches DBH. Exclude the northern part of the stand which is nearly pure sugar maple regeneration (area has been approximated in site conditions layer). This area can serve as retention for this treatment along with the 2 adjoining treatments to the west. Mark scattered trees as "push-over" trees for future drumming logs.

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Fully-stocked stand dominated by aspen with any additional mix of species being acceptable.

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2024



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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>95 53010095.19_Cut</b>	2.4	4134 - Aspen, Spruce/Fir	Sawtimber Well	78	111-140	Harvest	Clearcut	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Clearcut with no area retention due to the small size of the stand. Do not cut incidental basswood or any cherry over 5" DBH. Mark to leave 4-5 scattered clumps of mature maple and birch throughout the stand, include some spruce if present. Mark to leave senescing aspen with lots of rot which will serve as future snags and drumming logs when they fall over. Protect the larger serviceberry if possible.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Intermediate)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Fully-stocked stand dominated by aspen with any additional mix of species being acceptable.</p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										
<b>96 53010096.18_Cut</b>	7.0	4130 - Aspen	Poletimber Well	41	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Clearcut. Exclude the small sliver of wet ground at the north end and also exclude the small inclusion of mature hardwoods along the southeast edge near stand 93 (both areas are already in the site conditions layer as retention). If present, leave any incidental white spruce or white pine over 10" DBH. Mark scattered groups of trees (3-5) as "push-over" trees for drumming logs and brush piles. Try to protect hazelnut patches and some of the larger serviceberry.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Intermediate)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Fully-stocked stand dominated by aspen with any additional mix of species being acceptable.</p> <p><u>Other Comment:</u> Winter only harvest due to wood turtle sightings in this area.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										

**Approved Treatments:**

<b>26 53010026-Cut</b>	86.1	4110 - Sugar Maple Association	Poletimber Well	105	81-110	Harvest	Crown Thinning	4110 - Sugar Maple Association	Even-Aged	No
<p><u>Prescription</u> Thin the stand using sound hardwood marking principles. By using "best tree in place" method identify crop trees and open them up by cut</p> <p><u>Specs:</u> two nearest competitors. Thin stand down to 80-100 sq. ft. while maintaining species diversity throughout the stand.</p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u> EAB occurs throughout the stand, therefore all White Ash should be removed from the stand. Old next step comments: Due to lack of desirable species in either seed, seedling or sapling form there will not be an emphasis on regeneration at this stage of hardwood development. This stand should be allowed to mature further before regeneration is a concern.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2015</p>										

**Total Treatment 301.8**  
**Acres Proposed:**

## Report 4 – Site Conditions

Pigeon River Country Mgt. Unit  
Greg Rekowski : Examiner

Compartment: 10  
Year of Entry: 2025

### Availability for Management

Total Acres	Acres Available	Acres Avail		Acres Not Available	Dominant Site Conditions							
		With Condition			5C	2G	3A	3D	3J	5A	5E	
422	320	<b>45</b>		57	Aspen	<b>45</b>	20			27		10
41	0	<b>0</b>		41	Cedar		35				7	
61	61	<b>0</b>		0	Herbaceous Openland							
16	13	<b>0</b>		2	Low-Density Trees					2		
25	0	<b>0</b>		25	Lowland Aspen/Balsam Poplar		25					
36	6	<b>0</b>		29	Lowland Conifers		29					
41	7	<b>0</b>		34	Lowland Deciduous		34					
53	0	<b>0</b>		53	Lowland Mixed Forest		53					
26	26	<b>0</b>		0	Lowland Shrub							
76	68	<b>2</b>		6	Mixed Upland Deciduous	<b>2</b>	6					
884	757	<b>22</b>		105	Northern Hardwood	<b>22</b>	3			102		
88	68	<b>0</b>		20	Upland Mixed Forest		4	4	5	7		
3	3	<b>0</b>		0	Upland Shrub							
7	7	<b>0</b>		0	Upland Spruce/Fir							
1,777	1,335	<b>70</b>		372	Total Forested Acres	<b>70</b>	208	4	5	138	7	10
	75%	<b>4%</b>		21%	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)	15	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

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3	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wet areas and drainages in stand 57.							
4	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
5	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
6	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	35	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Manage this part of stand 65 with stand 39 to the west.							
7	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wet drainages in stand 49. The drainage to the west is especially wet and has quite a few lowland hardwoods. This can probably be typed as a new stand next entry.							



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8	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Vernal pools and drainages in stand 65 that should be protected from any harvesting.							
9	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Seasonally wet areas that should be excluded from the harvest in stand 38.							
10	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	0	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
11	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	20	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Vernal pool, drainage, wet ground complex. Heavy yellow birch component throughout this area. Do not manage.							
12	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
13	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> This area was designated for retention when stands 7 and 9 were recently harvested.							

## Report 4 – Site Conditions

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14	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Manage this part of stand 65 with stands 57 and 71 to the north.							
15	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
16	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	60	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Seasonally wet areas, vernal pools, and drainages in stand 14 that should be excluded from any future management activities.							
17	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wet drainage.							
18	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Seasonally wet ground and drainages that should be excluded from harvesting the next time this stand is thinned.							
19	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	14	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Seasonally wet areas, vernal pools, and drainages that should be excluded from any future management activities. The far southeast part of the site condition also has some steep slopes bordering the lowland.							

## Report 4 – Site Conditions

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20	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wet drainages to the west and seasonally wet ground that should be excluded from any harvesting activity.							
21	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wet drainages that should be excluded from any harvesting activity in the future.							
22	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	18	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
23	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Manage together with adjacent stand 59 when that stand is ready to harvest.							
24	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	2	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Approximate area of wet ground that should be excluded from the harvest in stand 42. Expect this area to shift once the boundary is ran on the ground. This area will serve as retention too.							
25	<b>Unavailable</b>	<b>3A: Conservation Values incompatible with harvest at this time</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Unique mix of cedar and hardwoods, also with some hemlock. Do not manage.							

## Report 4 – Site Conditions

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26	Unavailable	3D: Recreational / Scenic values	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Small stand that should be left unmanaged for visual purposes.							
27	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wet areas and drainages in stand 2, there are likely more wet areas throughout the stand.							
28	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Multiple drainages and vernal pools are present in the stand. Do not manage.							
29	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wet drainages that should be excluded from any future harvest activity. There are some additional wet areas in the stand that should be excluded when found.							
30	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Seasonally wet areas and drainages in stand 14 that should be excluded from any future management activities.							
31	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	30	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Pigeon River Country Mgt. Unit  
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32	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Very wet area, with standing water in places, that drains into the adjacent cedar stand to the east.							
33	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Retention for the harvest in stand 42.							
34	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wet drainages that should be excluded from any management activities.							
35	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	18	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
36	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
37	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Pit and mound topography throughout suggests a large part of this stand is seasonally wet with vernal pools and drainages. Some areas have standing water throughout the year. Opportunities may exist to harvest parts of the north and south ends of this stand but the remainder should be hard factored.							

## Report 4 – Site Conditions

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Compartment: 10  
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38	Unavailable	5A: Not able to obtain desirable regeneration	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> This is the rough approximation of stand 60 that appears operable. However, cedar regeneration is not possible due to current browse levels.							
39	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	34	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
40	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
41	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Let the aspen die out and manage for the young hardwood component.							
42	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
43	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wetland pocket.							

## Report 4 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment: 10

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44	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	29	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
45	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
46	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Area of very wet ground adjacent to a L type. This is just a rough approximation and may not reflect exact conditions on the ground.							
47	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
48	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wet drainages that should be excluded from any future harvests.							
49	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Desired retention areas for the harvest in stand 76.							

# Report 4 – Site Conditions

Pigeon River Country Mgt. Unit

Greg Rekowski : Examiner

Compartment: 10

Year of Entry: 2025

51	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							



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
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>1</b>	4110 - Sugar Maple Association	Sawtimber Well	151.2	105	81-110	N/A	<p>Very high quality northern hardwood stand with areas of the stand that are likely uneven-aged with some very large and old trees present. Stand was thinned in 1996-97 in the sale Horse Trail Hardwood (#53-006-95, AJD). The thinning was heaviest in the central and western parts of the stands, with BAs in these areas still quite low (&lt;100 sq ft) and the quality and size of trees also lower. There was also a lot of ash in this area, all of which are now dead and fallen over. The east and southeast parts of the stand appear to have been only lightly thinned, if at all, and this is where the highest quality parts of the stand are located, along with the largest and oldest trees. Many parts of this area are exceptional quality and will likely qualify as an ERA, if not also old growth. A wet drainage system is present in the middle of the stand and extends south to the "horseshoe" shaped part of the stand, with wet ground on both sides of the horseshoe (see site conditions layer). Yellow birch is frequent throughout these wet areas, and is the dominant overstory tree in some locations. While beech is not common in the stand, most have BBD. The red maple component is most numerous at the northern end. Trace of elm in the overstory. Average ba/acre from 27 plots = 109 square feet. The middle part of the stand sits on somewhat of a plateau with slopes going down to the north, east, and south. Steep slopes are present along the east edge adjacent to Osmun Road.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Yellow Birch	5	Pole/Log	9		White Ash	Low		5 - 10 feet	Sapling
Paper Birch	1	Log/Pole	11		Beech	High		Variable	Sapling
Ironwood	1	Pole	5		Ironwood	High		Variable	Sapling
Hemlock	3	Log/XLog	15						
Basswood	34	Log/XLog/Pole	14						
Red Maple	4	Log/Pole/XLog	12						
Sugar Maple	47	Log/Pole/XLog	12	105					
Beech	5	Log/Pole/XLog	13						

<b>2</b>	4199 - Other Mixed Upland Deciduous	Poletimber Well	6.6	47	81-110	N/A	<p>This stand was clearcut, along with stand 86 to the east, by DNR staff in 1976 for winter deer browse. It regenerated to a wide mix of species. Some excellent pockets of hardwood regeneration, including some yellow birch, scattered throughout. Ground in the stand seems to be about a 50/50 mix of upland and lowland, although it's difficult to tell with the snow on the ground. It's possible this is more of a lowland stand. Some of the lowland areas are very wet, including a drainage system with standing water in the north end of the stand. Pit and mound topography is also present throughout the majority of the stand, suggesting most of it is seasonally wet. Clumps of residual cedar and hemlock are scattered throughout, most are large diameter and healthy. There are a few residual basswood and sugar maple as well. There used to be a lot of ash (black and white) in the stand but almost all have died from EAB. I did find one 6" live black ash at the far northeast edge, the first live merchantable black ash I've found since the EAB invasion, as well as a handful of merchantable white ash that are alive. Trace of elm (pole/sap) and white spruce (pole/log). Average ba/acre from 7 plots = 100 square feet. Exclude wet areas from any future harvesting (hard factor). Do not manage the young hardwoods until mature.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Balsam Fir	10	Pole/Sapling	6		Ironwood	Low		Variable	Sapling
Red Maple	12	Pole/Sapling	5		Red Maple	Low		>20 feet	Sapling
White Ash	1	Pole	6		Balsam Fir	Low		Variable	Sapling
Balsam Poplar	7	Pole/Log	8		Sugar Maple	Medium		>20 feet	Sapling
Paper Birch	10	Pole/Sapling	5		White Ash	Low		Variable	Sapling
Basswood	3	Log	14		Yellow Birch	Trace		>20 feet	Sapling
Yellow Birch	3	Pole/Sapling	5		Black Ash	Low		Variable	Sapling
Ironwood	3	Sapling/Pole	4		Paper Birch	Trace		>20 feet	Sapling
Quaking Aspen	14	Pole/Log	8	47					
Sugar Maple	33	Sapling/Pole	4	47					
Northern White Cedar	3	Log/Pole	13						
Hemlock	1	Log/XLog	15						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>3</b>	4319 - Mixed Upland Forest	Sawtimber Well	4.3	102	141-170	N/A	Mixed species stand with a slight upland ridge that runs north-south through the middle and then drops slightly into lower ground on the east and west edges that appears seasonally wet. Hardwoods are dominant on the higher ridge. The east and west edges are comprised primarily of cedar, although some hardwoods are mixed in. The cedar is healthy and high quality, with a few large diameter trees (>20" DBH). A lot of blowdown is present in the stand, especially the south half, although it looks like the trees fell over a long time ago. Trace of paper birch (log/pole). Average ba/acre from 6 plots = 165 square feet. No management due to the unique species mix and inability to successfully regenerate the stand.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Basswood	12	Log/Pole	13		Sugar Maple	Low		>20 feet	Sapling
Quaking Aspen	1	Log/Pole	14		Beech	Low		Variable	Sapling
Red Maple	25	Log/Pole/XLog	12	102	Red Maple	Trace		>20 feet	Sapling
Sugar Maple	6	Pole/Log	8		White Ash	Medium		< 5 feet	Seeding
Hemlock	4	Log/XLog	15		Balsam Fir	Low		Variable	Sapling
Yellow Birch	2	Log/Pole	10		White Ash	Low		5 - 10 feet	Sapling
Balsam Fir	1	Pole	7						
Balsam Poplar	1	Pole/Log	8						
Northern White Cedar	48	Log/Pole/XLog	12	102					
<b>4</b>	4199 - Other Mixed Upland Deciduous	Poletimber Well	16.8	34	81-110	N/A		Diverse, multi-species stand. Clearcut in 1989 by Michael Bruning, all species were cut except for cedar and hemlock. Regeneration came back to a wide mix of species. Aspen is prevalent in scattered clones but in no way is it dominant or uniform throughout the stand. The aspen and balsam poplar seem to be most prevalent in the southwest part of the stand as well as a few scattered clones in the middle part. Varying levels of ground moisture in the stand. In general, the east, narrow half of the stand is much drier. The west half becomes much wetter with pit and mound topography and includes areas of standing water that are drainages going into the adjacent cedar stand. Difficult to tell how wet the stand really is with snow on the ground, it's possible this could be coded as a lowland stand. Some of the wet areas have an excellent component of yellow birch regeneration. Trace of hemlock residual (log/xlog). Average ba/acre from 10 plots = 93 square feet. Diameters are a long way off from making this a merchantable stand. Let grow several more entries and then re-evaluate species percentages and management options. It may make sense to split out the aspen pockets from the remainder of the stand. Protect the young yellow birch component by excluding those areas from any potential harvest. Also, exclude all wet areas, which are likely more numerous than what is shown in the site conditions layer.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density			Avg. Height
Balsam Poplar	12	Pole/Sapling	7		Red Maple	Medium	>20 feet		Sapling
Quaking Aspen	28	Pole/Sapling	6	34	Tag Alder	Trace	10 - 20 feet		Tall Shrub
Sugar Maple	9	Sapling/Pole	4		White Ash	Medium	Variable		Sapling
Balsam Fir	13	Pole/Sapling	5		Sugar Maple	Medium	>20 feet		Sapling
Bigtooth Aspen	2	Pole/Sapling	6		Beech	Trace	Variable		Sapling
Yellow Birch	2	Sapling/Pole	4		Black Ash	Low	Variable		Sapling
Black Cherry	2	Pole/Sapling	5		Balsam Fir	Medium	Variable		Sapling
Northern White Cedar	1	Pole/Log	9		Black Cherry	Trace	Variable		Tall Shrub
White Spruce	1	Pole	6		Paper Birch	Trace	>20 feet		Sapling
Paper Birch	5	Pole/Sapling	5		Yellow Birch	Low	>20 feet		Sapling
Red Maple	24	Pole/Sapling	5	34	Ironwood	Trace	Variable		Sapling
White Ash	1	Sapling	4						
<b>5</b>	6120 - Lowland Cedar	Poletimber Well	30.4	108	111-140	N/A	Cedar swamp of varying quality with drainages entering the stand that flow out to the northeast and eventually form McMaster's Creek to the east across Osmun Road. Cedar decline is prevalent in some places, while in others the cedar is still healthy. Quite a bit of older blowdown in the stand which makes it difficult to get through. A tiny upland island with steep slopes is present in the middle of the stand, comprised of red maple and hemlock. Trace of white pine (log/xlog), quaking aspen (log/pole), yellow birch (pole/sap), and black spruce (pole/sap). Average ba/acre from 5 plots = 126 square feet. No management due to the wet ground and stream influence.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Paper Birch	1	Pole	7		Black Ash	Trace		< 5 feet	Sapling
Red Maple	3	Log/Pole	11		Tag Alder	Medium		Variable	Tall Shrub
Balsam Fir	5	Pole	7		Balsam Fir	High		Variable	Sapling
White Spruce	1	Log/Pole/XLog	12		Red Maple	Trace		Variable	Sapling
Northern White Cedar	89	Pole/Log	9	108	Paper Birch	Trace		>20 feet	Sapling
Hemlock	1	Log/Pole	13						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																													
6	4319 - Mixed Upland Forest	Sapling Well	3.2	41	81-110	N/A	Strip cut along the swamp that was done for winter deer browse. It regenerated back to primarily fir with some scattered aspen. The fir is incredibly thick in some areas. Trace of residual hemlock (xlog). Average ba/acre from 5 plots = 84 square feet. This stand is still several entries away from being ready to cut again.																																																																													
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7	4130 - Aspen	Sapling Well	9.5	4	Immature	N/A	Stand was clearcut in the summer of 2019. Regeneration has come back well to aspen with the exception of lowland areas along the west edge which are now mostly non-forested with sedge and cattails. No browse impacts noted on the aspen. Some, but not all, of the red maple has been heavily browsed and kept below 5 feet tall. Thick blackberry/raspberry component in most of the stand.																																																																													
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8	4130 - Aspen	Sapling Well	23.0	16	Immature	N/A	This stand was cut in 2007 in the sale Webb Corner Aspen (Schleben Forest Products, #53-011-05). Regeneration came back very well and the stand is fully-stocked. From imagery, it looks like the southwest corner of the stand is the only area that suffered some browse damage. Regeneration is thick throughout most of the stand with a good hardwood component. In general, ash seems to be more abundant east of Osmun Road, while the sugar maple component is heavier west of the road. Most of the paper birch regen is directly adjacent to the roads. Some of the black cherry has good form and is recruiting into the overstory. Trace of balsam fir and white pine. Trace of invasive honeysuckle.																																																																													
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9	4130 - Aspen	Sapling Well	40.4	4	Immature	N/A	This stand was clearcut in the summer of 2019 by Precision. Regeneration has come back well to aspen but elk browse is severely impacting the bigtooth aspen component. It's difficult to tell how much of the bigtooth is alive at this point. The quaking aspen is being browsed in a few areas but not too bad. Most hardwood stump sprouts appear to be dead. As expected, browse intensity becomes higher the further you get away from the roads. If browse continues, this will likely be an A2 next entry. A large area of retention was excluded at the far east end and there were a few small pockets of tree excluded around the interior G type (stand #10).																																																																													
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments					
10	310 - Herbaceous Openland	Nonstocked	3.4		Unspecified	No	Series of small non-forested openings. Cherry is mostly at the southern end. This does not appear to be a managed opening. Most recently used as a landing for the adjacent aspen clearcut.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Bracken Fern	High	Unspecified	Non-Wood	
								Quaking Aspen	Trace	>20 feet	Pole	
								White Pine	Trace	>20 feet	Pole	
								Balsam Fir	Trace	>20 feet	Pole	
								Mixed Grasses	High	Unspecified	Non-Wood	
								Black Cherry	Medium	>20 feet	Tall Shrub	
								White Pine	Trace	>20 feet	Log	
								Bigtooth Aspen	Trace	>20 feet	Log	
Balsam Fir	Trace	Variable	Sapling									
11	3105 - Mixed Upland Herbaceous	Nonstocked	1.3		Unspecified	No	Old landing that has not regenerated. Lots of knapweed. Raspberry and blackberry patches along the edges. A small amount of invasive honeysuckle on the west side of the road.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Spotted Knapweed	High	Unspecified	Non-Wood	
								Amur Honeysuckle	Trace	< 5 feet	Tall Shrub	
								Bracken Fern	Low	Unspecified	Non-Wood	
								Blackberry/Raspberry	Medium	< 5 feet	Tall Shrub	
								Mixed Grasses	High	Unspecified	Non-Wood	
								Black Cherry	Trace	Variable	Tall Shrub	
12	4130 - Aspen	Sapling Well	67.8	5	Immature	N/A	This stand was cut in 2018 by Hincka Logging. Regeneration has come back well to predominantly aspen and is very thick in areas. Browse impacts on the aspen are relatively limited at this time, with the exception of some localized areas. However, browse is notable on the young hardwoods, which has kept most of them below 5 feet tall. There are several drainages in the stand that weren't protected from the harvest, regeneration is lacking in most of them. Old leaf-off imagery shows the location of these drainages. Trace of basswood, paper birch, and pin cherry regeneration. Rolling terrain. No snags at all were left in the stand. Some rutting damage in the drainage areas. A few clumps of invasive honeysuckle were found in the middle part of the stand, northwest of the landing.					
								Canopy Species	% Cover	Size Class	DBH	Age
								Ironwood	4	Sapling	1	
								Balsam Poplar	18	Sapling	1	
								White Ash	2	Sapling	1	
								Quaking Aspen	60	Sapling	1	5
								Bigtooth Aspen	12	Sapling	1	5
								Sugar Maple	2	Sapling	1	
								Red Maple	1	Sapling	1	
								Beech	1	Sapling	1	
								Sub-Canopy Species	Density	Avg. Height	Size	
								White Ash	Low	< 5 feet	Seeding	
								Wild Red Raspberry	High	< 5 feet	Tall Shrub	
								Common Blackberry	Low	< 5 feet	Tall Shrub	
								Black Cherry	Low	5 - 10 feet	Tall Shrub	
Beech	Low	< 5 feet	Seeding									
Sugar Maple	Low	< 5 feet	Seeding									



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments									
13	320 - Upland Shrub	Nonstocked	1.9		Unspecified	No	Not a managed opening. A few scattered clumps of invasive honeysuckle throughout the stand.									
								Sub-Canopy Species	Density	Avg. Height	Size					
								Blackberry/Raspberry	Medium	< 5 feet	Tall Shrub					
								Black Cherry	Medium	>20 feet	Tall Shrub					
								Amur Honeysuckle	Low	< 5 feet	Tall Shrub					
								White Pine	Trace	>20 feet	Log					
								White Pine	Trace	>20 feet	Pole					
								White Pine	Trace	Variable	Sapling					
								Bracken Fern	Medium	Unspecified	Non-Wood					
								Mixed Grasses	High	Unspecified	Non-Wood					
14	4110 - Sugar Maple Association	Sawtimber Well	269.1	105	81-110	N/A	Large stand of hardwoods, generally high quality. Thinned in 2009-10 in the sale Osmun Road Hardwood (AJD, #53-017-05). Large amount of volume removed, including 42 cords of yellow birch (why?). Thinned too heavily in many areas. Regeneration is almost exclusively undesirable species, I did not notice any regeneration other than beech, ironwood, or ash. Many areas of low BAs also have a thick component of raspberry. The east half of the stand, east of Osmun Road, has a slightly different character than the west half, with numerous drainages and areas of wet ground, and has scattered hemlock and yellow birch. The west half has a few drainages as well but not as many. None of the drainages were excluded from the harvest and some rutting damage was noted. See site conditions layer and/or leaf off imagery for locations of these water features. Trace of ironwood (pole), paper birch (log), and elm (log/pole). Average ba/acre from 19 plots = 97 square feet. Flat to rolling terrain. It will probably be at least 20 years before this stand is ready for another treatment. Protect all wet areas.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Red Maple	1	Log/Pole	10		Ironwood	Medium	Variable	Sapling
								Basswood	28	Log/XLog/Pole	15		White Ash	Low	5 - 10 feet	Sapling
								Quaking Aspen	1	Log/XLog	16		Beech	High	10 - 20 feet	Sapling
								Beech	8	Log/Pole/XLog	12		Wild Red Raspberry	Medium	< 5 feet	Tall Shrub
								Sugar Maple	57	Log/Pole	11	105	White Ash	High	< 5 feet	Seeding
								Yellow Birch	3	Log/Pole	12					
								Hemlock	2	Log/XLog	17					
								15	4199 - Other Mixed Upland Deciduous	Poletimber Well	5.8	72	81-110	N/A	Small stand of generally low quality hardwoods, with some aspen mixed in. It's possible the aspen is younger and was cut out of the stand when stand 65 to the south was clearcut, leaving all the hardwoods. The northern 1/3rd of the stand is mostly wet. A wet drainage runs east-west just south of the middle part of the stand. The south edge of the stand borders wet ground as well. Trace of cedar, elm, and yellow birch in the overstory. Average ba/acre from 5 plots = 90 square feet. Due to the multiple water features in and around the area, this stand can stay unmanaged and serve as long term retention.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height									Size
Red Maple	22	Pole/Log	8		Red Maple	Low	>20 feet									Sapling
Balsam Poplar	2	Pole/Log	8		Sugar Maple	Low	>20 feet									Sapling
Basswood	4	Pole/Log	9		Mountain Holly	Low	5 - 10 feet									Tall Shrub
Quaking Aspen	31	Pole/Log	8		Balsam Fir	Low	Variable									Sapling
Sugar Maple	33	Pole	7	72	Black Ash	Trace	Variable									Sapling
Paper Birch	1	Pole/Log	8													
Balsam Fir	4	Pole/Sapling	5													
White Pine	2	Log/Pole	13													
Hemlock	1	Log	13													



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																																			
16	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	5.4	105	51-80	N/A	Long, low drainage along Osmun Road in the middle of a hardwood stand. The far north end is a small wetland with holly in it. It looks like there used to be a lot of both white and black ash in the stand, but they are all dead now from EAB. Some scattered clumps of cedar, mostly in the south half of the stand. Nice component of yellow birch in some areas. A few small inclusions of upland. Some areas of low BA. Trace of bigtooth aspen. Average ba/acre from 6 plots = 53 square feet. No management due to the wet ground.																																																																																			
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17	3105 - Mixed Upland Herbaceous	Nonstocked	1.8		Unspecified	Managed Opening	This is a managed opening that is periodically mowed. There are 3 Siberian crabapples and 1 white pine at the northwest edge of the stand.																																																																																			
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18	4130 - Aspen	Poletimber Well	5.6	36	81-110	N/A	Developing aspen stand with a significant hardwood component. This stand was harvested in 1987 by Michael Bruning in the sale Double 10 (#53-026-85). Aspen diameters tend to vary quite a bit with some areas, more towards the south, that are just over merchantability. There are some areas, particularly along the west edge, without much aspen and dominated by hardwoods. Many of the ash appear to be impacted by EAB and it's difficult to tell how many are alive at this point. Trace of white pine and balsam fir in the overstory. Average ba/acre from 6 plots = 102 square feet. The stand sits on a gradual west facing slope.																																																																																			
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19	3105 - Mixed Upland Herbaceous	Nonstocked	9.1		Unspecified	Managed Opening	This is a managed opening that is periodically mowed. A few scattered pine throughout, including a single large scotch pine at the south end. Clumps of autumn olive and nonnative honeysuckle can be found clustered directly around the trees where the mower can't get to. A clump of 15 or so hawthorn is in the middle of the stand.																																																																																			
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<b>20</b>	4110 - Sugar Maple Association	Sawtimber Well	108.3	105	81-110	N/A	Nice hardwood stand with a lot of quality sugar maple. Thinned in 2001-02 in the sale Ninja Fawn Hardwoods (#53-011-95, Michael Bruning). The far north end of the stand had a lot of ash and it looks like some of it was salvaged at the same time as stand 26 to the west in Comp 9, which took place around 2014. Beech is not prevalent in the stand but most have BBD. A few large elm scattered throughout (14"+). Trace of red maple, bigtooth aspen, yellow birch, paper birch, and white pine in the overstory. Average ba/acre from 26 plots = 101 square feet. Rolling terrain but no inoperable slopes. A few areas of wet ground at the southwest end near the G type and A6 (stands 23 and 25). This stand should be ready for a thinning or selection harvest next entry.																																																																																																							
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<b>21</b>	4139 - Aspen, Mixed Deciduous	Poletimber Well	4.9	34	51-80	N/A	Highly variable stand. The east side is primarily quaking aspen and BAM, with a good component of paper birch, black cherry, and ash. The south side and most of the west have a higher concentration of fir. The far northwest corner has a couple of large diameter basswood (stump sprout origin). A second age class of old, large diameter aspen is scattered occasionally throughout. Trace of red pine (pole), white pine (pole/sap), sugar maple (pole/sap), elm (pole). Average ba/acre from 7 plots = 97 square feet. Manage together with stand 24 when that is prescribed for a harvest.																																																																																																							
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<b>23</b>	3105 - Mixed Upland Herbaceous	Nonstocked	15.9		Unspecified	Managed Opening	This is a managed opening that is periodically mowed, except for the northeast finger which is not managed. Some areas of wet ground in the northeast finger, and most of the white pine, cherry, BAM, and autumn olive is located in this area. Large apple tree in the middle of the stand that is usually very productive. A single small scotch pine at the north end.																																																																																																							
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>24</b>	4134 - Aspen, Spruce/Fir	Poletimber Well	19.8	34	81-110	N/A	Moderate quality aspen stand with a thick component of fir. A few wet drainages, running north-south, are present in the east half of the stand, although difficult to distinguish on aerial imagery. The entire south edge of the stand transitions to lowland, is very wet in areas, and has more of a BAM/black ash/birch/alder species mix. Most ash are in the sapling layer, although there are a few white ash poletimber stems scattered throughout that are still alive. Red maple is most common in the southwest corner of the stand. Trace of sugar maple (pole/sap), white pine (pole/sap), and elm (pole). Average ba/acre from 10 plots = 107 square feet. Flat to gently rolling terrain. This stand should be ready for a harvest next entry.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Quaking Aspen	40	Pole/Sapling	6	34	Black Ash	Low		Variable	Sapling
White Spruce	4	Pole/Sapling	6		American Elm	Trace		Variable	Sapling
Paper Birch	3	Sapling/Pole	4		Paper Birch	Trace		Variable	Sapling
Balsam Fir	34	Pole/Sapling	5		Red Maple	Trace		>20 feet	Sapling
Black Spruce	1	Pole	6		Tag Alder	Low		10 - 20 feet	Tall Shrub
Red Maple	6	Pole/Sapling	5		Balsam Fir	Full		Variable	Sapling
Bigtooth Aspen	2	Pole/Log	9		White Ash	Medium		Variable	Sapling
White Ash	2	Pole/Sapling	6		Black Cherry	Low		Variable	Tall Shrub
Balsam Poplar	8	Pole/Sapling	7		Serviceberry (Juneberry)	Trace		Variable	Tall Shrub

<b>25</b>	4130 - Aspen	Poletimber Well	8.0	45	111-140	N/A	This stand was manually felled by DNR staff in 1978. Aspen regenerated well as did an excellent mix of hardwood species (including yellow birch!). Almost all hardwoods you would expect to see in a stand are here. I'm guessing that the large amount of downed trees must have kept the deer and elk out of the stand, which in turn led to the great hardwood regeneration. In the areas where aspen is not well-stocked, it is pure hardwoods. A lot of the ash is dead but there are still some that appear to be hanging on. The white pine and fir is mostly in a small strip along the west side. Average ba/acre from 5 plots = 132 square feet. Roughly 1/2 of this stand is seasonally wet lowland with a network of drainages (see leaf-off imagery). There is also a lot of pit and mound topography suggesting vernal pools in the spring. The amount of wet ground does not make this stand commercially viable. Let the hardwoods continue to grow and perhaps do another manual cut in 10 or 20 years, protecting hardwoods as much as possible.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Paper Birch	5	Pole/Sapling	5		Red Maple	Trace		>20 feet	Sapling
Red Maple	2	Pole/Sapling	5		Yellow Birch	Trace		>20 feet	Sapling
Sugar Maple	16	Sapling/Pole	4		Basswood	Trace		>20 feet	Sapling
Balsam Fir	1	Pole	7		Paper Birch	Low		>20 feet	Sapling
Bigtooth Aspen	20	Log/Pole	10		Beech	Low		Variable	Sapling
Basswood	1	Pole	6		American Elm	Trace		Variable	Sapling
White Ash	5	Pole/Sapling	6		Sugar Maple	Full		>20 feet	Sapling
Quaking Aspen	40	Pole/Log	9	45	White Ash	Medium		>20 feet	Sapling
American Elm	1	Pole/Sapling	5		Ironwood	Low		Variable	Sapling
Yellow Birch	2	Sapling/Pole	4						
White Pine	1	Log/Pole	11						
Balsam Poplar	6	Pole/Log	9						

<b>26</b>	4110 - Sugar Maple Association	Poletimber Well	91.1	105	81-110	N/A	This stand is currently under contract in the sale Westward Clute Hardwoods (#53-007-16), bought by Shaun Hope. It was cut in the summer of 2022. Skidding and hauling still remain.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Quaking Aspen	2	Log	12		White Ash	Medium		5 - 10 feet	Sapling
Beech	5	Pole/Log	10		Ironwood	Medium		5 - 10 feet	Sapling
Sugar Maple	43	Log/Pole	10	105	Beech	Low		5 - 10 feet	Sapling
Basswood	50	Pole/Log	10	105					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
<b>27</b>	4319 - Mixed Upland Forest	Poletimber Well	4.8	62	51-80	N/A	Narrow strip of aspen, hardwoods, and conifers along Osmun Road. The stand starts as upland at the south end and gradually becomes wetter the further north you go. Hardwoods, specifically basswood, are more common at the south end. It looks like there used to be a decent amount of white ash in the stand but it is now all dead except for the smaller stems. 2 age classes of aspen are present, some in the 7-12" range and then a component of older trees 15" DBH and larger. There are a few very large balsam fir over 18" DBH. Some advanced basswood regen along the road edge, not a common thing to see in the PRC. Found one red oak sapling as well. Trace of elm and yellow birch in the overstory. Average ba/acre from 5 plots = 126 square feet. Not real desirable timber, leave unmanaged for visual management reasons.			
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size	
Red Maple	5	Log/Pole/XLog	14		American Elm	Trace		>20 feet	Sapling	
Sugar Maple	6	Pole/Log	8		Balsam Fir	High		Variable	Sapling	
Paper Birch	4	Pole	7		Paper Birch	Trace		>20 feet	Sapling	
White Spruce	1	Log	14		White Ash	Medium		Variable	Sapling	
Quaking Aspen	28	Log/Pole/XLog	10	62	White Ash	Medium		< 5 feet	Seeding	
Balsam Poplar	2	Log	13		Ironwood	Trace		Variable	Sapling	
Hemlock	1	Log/XLog	16		Basswood	Trace		>20 feet	Sapling	
Balsam Fir	37	Pole/Log	8	62	Beech	Low		Variable	Sapling	
Basswood	12	Log/Pole	12							
Northern White Cedar	4	Log/Pole	12							
<b>28</b>	4130 - Aspen	Sapling Well	17.4	24	Immature	N/A		Developing aspen stand. There are scattered areas without much regeneration, which from leaf-off imagery appears to be the location of old skid trails that were heavily disturbed with some ruts still evident today. Numerous drainages and areas of wet ground are present throughout (see site conditions layer). Diameter growth is better in the wet areas. Limited overstory diversity, poplar species are dominant.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density			Avg. Height	Size
Balsam Fir	6	Sapling	3		Paper Birch	Trace	>20 feet		Sapling	
White Spruce	2	Sapling/Pole	3		Black Ash	Low	5 - 10 feet		Sapling	
Quaking Aspen	72	Sapling	3	24	White Spruce	Trace	Variable		Sapling	
Balsam Poplar	20	Sapling/Pole	3		Black Cherry	Low	Variable		Tall Shrub	
					Red Maple	Trace	10 - 20 feet		Sapling	
					Balsam Fir	Medium	Variable		Sapling	
					White Ash	Low	5 - 10 feet		Sapling	
					White Pine	Trace	Variable		Sapling	
<b>29</b>	6119 - Mixed Lowland Deciduous Forest	Sawtimber Well	7.4	78	81-110	N/A	Variable stand of upland and lowland. Wet drainages coming from the northwest and northeast converge at the south end of the stand, creating a small non-forested wetland that is likely a result of water drainage being blocked by Clute Road which borders the southern edge of the stand. A vein of upland runs north-south through the middle of the stand with additional upland along the east and west edges of the stand. Basswood can be found in both wet and dry areas. The quaking aspen appears to be of multiple age classes, as there are some scattered large diameter (>15" DBH) stems here and there. Most of the elm in the stand appears healthy and some of the white ash stems in the poletimber size class are still alive. Trace of white pine (pole), white spruce (log/pole), and balsam poplar (pole/log) in the overstory. Average ba/acre from 8 plots = 100 square feet. No management due to the wet ground.			
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density			Avg. Height	Size
American Elm	3	Pole	6		White Ash	Medium			Variable	Sapling
Ironwood	1	Pole	5		Beech	Low		Variable	Sapling	
Red Maple	5	Pole/Log	9		Red Osier Dogwood	Low		< 5 feet	Tall Shrub	
White Ash	1	Pole	6		Sugar Maple	Trace		>20 feet	Sapling	
Balsam Fir	17	Pole/Sap/Log	7		Black Ash	Low		Variable	Sapling	
Quaking Aspen	24	Log/Pole/XLog	11	78	Balsam Fir	High		Variable	Sapling	
Basswood	16	Log/Pole	12		Ironwood	Trace		Variable	Sapling	
Northern White Cedar	2	Log	13							
Paper Birch	14	Log/Pole	10							
Sugar Maple	17	Pole/Log	8							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments									
30	6229 - Mixed lowland shrub	Nonstocked	9.8		Unspecified	No	Lowland shrub stand that looks to be slowly filling in with trees. A stream flows east through the length of the stand and old imagery shows that it was previously dammed by beavers in 2 locations, but this doesn't appear to be the case any more. Some areas of emergent wetland are present closer to the stream. I only looked at this stand in 2 spots along the edge.									
								Sub-Canopy Species	Density	Avg. Height	Size					
								Balsam Fir	Trace	< 5 feet	Seeding					
								Red Maple	Trace	Variable	Sapling					
								Willow spp.	Medium	Variable	Tall Shrub					
								Paper Birch	Low	Variable	Sapling					
								Balsam Fir	Low	Variable	Sapling					
								Black Ash	Low	Variable	Sapling					
								Tag Alder	Low	Variable	Tall Shrub					
Balsam Poplar	Trace	Variable	Sapling													
31	4139 - Aspen, Mixed Deciduous	Sapling Well	5.2	22	Immature	N/A	Generally a well-stocked stand of poplar species. It was cut at the same time as stand 37 to the north but regenerated much better. There are some areas in the east half of the stand, that look like the old landing, that haven't regenerated as well although some conifers are filling in. The west half of the stand looks to be seasonally wet and has a dense understory of black ash. The east half of the stand has wet areas at the north and south ends, as well as along the east edge. The haul road cut east-west through the middle of the stand, and at the narrow pinch point of the stand, the road crossed a seasonal drainage. It does not appear a culvert or temporary bridge was utilized as ruts are still evident. Trace of red pine, white pine, and black spruce saplings.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Paper Birch	3	Sapling	2		Black Cherry	Low	Variable	Tall Shrub
								Balsam Fir	11	Sapling	3		Willow spp.	Low	Variable	Tall Shrub
								Balsam Poplar	29	Sapling	3		White Spruce	Trace	5 - 10 feet	Sapling
								White Spruce	2	Sapling	3		Paper Birch	Trace	5 - 10 feet	Sapling
								Quaking Aspen	55	Sapling	3	22	Balsam Fir	Medium	5 - 10 feet	Sapling
													Black Ash	Medium	< 5 feet	Seeding
													Black Ash	Medium	5 - 10 feet	Sapling
								32	4319 - Mixed Upland Forest	Poletimber Well	3.6	91	81-110	N/A	Small stand of mature red pine with a younger understory of hardwoods. Most recent harvest was in 1982 (Hyde's Forest Products), where everything was cut except for red and white pine. The red pine is mostly along the west edge of the stand. Most of the hardwoods are new ingrowth but there are some scattered older sugar maple stems that were not cut during the harvest. Fir becomes common in the east half of the stand. Most merchantable white ash are dead but there are still a few poletimber stems hanging on. Most beech have BBD. A few of the serviceberry are over 5" DBH. Trace of white pine (log) and XL-sized sugar maple in the overstory. Average ba/acre from 5 plots = 106 square feet. Let the hardwoods continue to grow and manage when mature.	
																Canopy Species
Beech	15	Pole	6		White Ash	Low	>20 feet									Sapling
White Ash	1	Pole	6		Black Cherry	Low	>20 feet									Tall Shrub
Paper Birch	2	Pole/Log	8		Balsam Fir	Low	Variable									Sapling
Sugar Maple	22	Pole/Sap/Log	6	41	Ironwood	Medium	Variable									Sapling
Quaking Aspen	4	Log/Pole	12		Serviceberry (Juneberry)	Trace	>20 feet									Tall Shrub
Red Pine	29	XLog/Log	20	91	Sugar Maple	Medium	>20 feet									Sapling
Balsam Fir	19	Pole/Log	8		Beech	Medium	Variable									Sapling
Red Maple	4	Pole/Log	8													
Basswood	1	Log/Pole	11													
Ironwood	3	Pole	5													
33	3102 - Grass	Nonstocked	4.2		Unspecified	Managed Opening	This is a managed opening that is mowed each year.									
																Sub-Canopy Species
								Bracken Fern	Medium		Non-Wood					
Mixed Grasses	Full		Non-Wood													



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>34</b>	4130 - Aspen	Poletimber Well	7.0	45	81-110	N/A	Moderate quality aspen stand. Diameters on the aspen vary considerably, with some areas just over merchantability and others ranging from 8-10" DBH. Balsam poplar is mostly at the far northern end. A small amount of merchantable white ash is still alive. A few larger diameter, residual red maple are scattered throughout. There appears to be wet ground throughout the stand, more common in the south half and along all of the edges. However, it is difficult to tell how wet the stand really is due to the large amount of snow on the ground (1.5 feet) during inventory. Average ba/acre from 5 plots = 92 square feet. This stand will be ready for a treatment next entry however access is going to be difficult due to wet ground, so it may require a manual habitat cut instead.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Balsam Poplar		8	Pole	7		Paper Birch		Low	>20 feet	Sapling	
Quaking Aspen		64	Pole/Sap/Log	7	45	White Ash		Low	>20 feet	Sapling	
Red Maple		10	Pole/Sap/Log	6		Sugar Maple		Trace	>20 feet	Sapling	
Balsam Fir		14	Pole/Sapling	6		Beech		Trace	Variable	Sapling	
White Ash		1	Pole	5		Red Maple		Low	>20 feet	Sapling	
Sugar Maple		1	Pole	5		Balsam Fir		High	Variable	Sapling	
Paper Birch		2	Pole/Sapling	5		Black Ash		Trace	Variable	Sapling	

<b>35</b>	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	29.3	85	81-110	N/A	Wet lowland stand that is dominated by cedar, most of which is in decline and/or already dead. There are some scattered pockets having a more diverse overstory, tending to be along the west edge and southeast part of the stand. Numerous areas of cedar blowdown, especially in the central part, which makes it very difficult to navigate through the stand. Some cedar layering is occurring in the blowdown areas. Black ash regeneration is abundant throughout most of the stand, being very thick in some areas. There are also a few small pockets of good paper birch and yellow birch regeneration. The far southeast edge of the stand adjacent to Clute Road has a 1/2 acre inclusion of younger A6, sitting on drier soils, that must have been cut at the same time as stand 73 to the west. Trace of sugar maple (pole) and basswood (log/pole) in the overstory. Average ba/acre from 9 plots = 108 square feet. Next entry this will likely be a Q4 due to the ongoing cedar mortality. The 98DOQ imagery shows this as a healthy stand so something must have happened in the past 20 years that disrupted the hydrology of the stand, either the drainage crossing over Clute Road is not adequate or active beaver dams further to the southeast backed up water flow enough to cause the cedar mortality.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Northern White Cedar		49	Pole/Log	9	85	Balsam Poplar		Trace	Variable	Sapling	
Quaking Aspen		16	Log/XLog/Pole	14		Balsam Fir		Medium	Variable	Sapling	
Balsam Fir		12	Pole	7		Tag Alder		Low	10 - 20 feet	Tall Shrub	
Yellow Birch		1	Pole	7		Paper Birch		Low	>20 feet	Sapling	
Paper Birch		3	Pole/Sapling	6		American Elm		Trace	Variable	Sapling	
Balsam Poplar		3	Log/Pole	12		Yellow Birch		Trace	Variable	Sapling	
White Spruce		11	Log/Pole	14		Black Ash		High	Variable	Sapling	
Red Maple		4	Pole	8		Red Osier Dogwood		Low	5 - 10 feet	Tall Shrub	
American Elm		1	Log/Pole	13		Basswood		Trace	Variable	Sapling	
						Red Maple		Low	Variable	Sapling	
						White Spruce		Trace	Variable	Sapling	

<b>36</b>	6124 - Lowland Spruce-Fir	Sapling Well	6.2	36	51-80	N/A	Mixed species stand of mostly sub-merchantable stems. Thick balsam fir in most places, although the west half of the stand shifts to more of a deciduous species mix. Found a few cedar saplings in the south half of the stand! A handful of larger spruce and cedar are scattered throughout. Some of the willow is greater than 5" DBH, not sure what species it is. No sale records were found, nor are there any signs of a past harvest in this stand. Average ba/acre from 5 plots = 72 square feet. Difficult to tell how wet this stand is, as there was 1.5 feet of snow on the ground at time of inventory, however the prevalence of red-osier dogwood at the ground level leads me to believe this is a very wet site. Future management of this stand is questionable based on ground conditions.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Balsam Fir		41	Sapling/Pole	3	36	Red Osier Dogwood		Medium	< 5 feet	Tall Shrub	
Balsam Poplar		19	Sapling/Pole	4		Balsam Fir		Medium	5 - 10 feet	Sapling	
Quaking Aspen		9	Sapling/Pole	4		Paper Birch		Trace	5 - 10 feet	Sapling	
Black Ash		2	Sapling	2		Tag Alder		Low	>20 feet	Tall Shrub	
Paper Birch		10	Sapling	3		Black Ash		Low	5 - 10 feet	Sapling	
Black Spruce		4	Pole/Sapling	5		Willow spp.		Medium	Variable	Tall Shrub	
Northern White Cedar		1	Sapling	2							
White Spruce		14	Pole/Sapling	5							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>37</b>	6119 - Mixed Lowland Deciduous Forest	Sapling Medium	7.0	22	Immature	N/A	Regeneration is spotty throughout this stand although there is a very nice component of paper birch in most places. Some areas are dominated by lowland shrubs, particularly willow. There is a small pocket of cedar blowdown in the middle of the stand that has actual cedar regeneration, about half of which has grown past the browse level! There are also some cedar seedlings scattered throughout the stand but most have been heavily browsed. The north half of the stand seems to be wetter than the south half, although it's difficult to tell how wet the stand really is due to the large amount of snow on the ground at time of inventory.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Paper Birch	37	Sapling/Pole	3	22	Balsam Fir	Low		< 5 feet	Seeding
White Spruce	3	Sapling	2		White Spruce	Trace		< 5 feet	Seeding
Northern White Cedar	1	Sapling	2		Northern White Cedar	Trace		< 5 feet	Seeding
Black Ash	5	Sapling	2		Willow spp.	High		10 - 20 feet	Tall Shrub
Quaking Aspen	17	Sapling/Pole	3		White Spruce	Trace		5 - 10 feet	Sapling
Balsam Fir	10	Sapling	3		Black Ash	Low		< 5 feet	Seeding
Red Maple	5	Sapling	3		Black Ash	Low		5 - 10 feet	Sapling
Balsam Poplar	22	Sapling	3		Balsam Fir	Low		5 - 10 feet	Sapling
					Tag Alder	Trace		10 - 20 feet	Tall Shrub
<b>38</b>	4110 - Sugar Maple Association	Poletimber Well	84.0	100	111-140	N/A		Nice hardwood stand with a lot of quality sugar maple. Beech tends to occur in clumps and most have BBD. A few small pockets of younger ash/maple/ironwood/elm at the north end. Terrain slopes down gradually to the east in both fingers of the stand. There is a small north-south running drainage at the far east end of the stand. Additional wet ground is present in the middle of the stand on the north edge, directly south of stand 25. Trace of red maple, paper birch, white pine, and hemlock in the overstory. Average ba/acre from 20 plots = 115 square feet. Two old ground blinds are in the stand.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density			Avg. Height
Red Pine	1	Log/XLog	15		Ironwood	Low	Variable		Sapling
Sugar Maple	57	Pole/Log	9	100	Beech	Medium	Variable		Sapling
Bigtooth Aspen	1	Log/XLog	17						
American Elm	1	Pole	7						
Beech	4	Pole/Log	8						
Ironwood	1	Pole	5						
Basswood	35	Log/Pole	12	100					
<b>39</b>	6130 - Fir, Aspen, Maple	Poletimber Well	10.3	68	51-80	N/A	Multi-aged, diverse stand but generally low quality and not well-stocked in many places. There are at least two age classes of aspen in the stand as it looks like areas adjacent to the railroad grade on the east side had a partial harvest long ago and subsequently regenerated to a few small clones of aspen. The remainder of the aspen throughout the stand is large diameter and old, with several already dead or close to it. Black ash used to be a large component but they are now all dead due to EAB. The majority of the stand sits on very wet ground, with a drainage running north-south through the middle for the length of the stand. There are a few areas of drier transitional ground along the east edge. A good representation of elm is present at the south end. Average ba/acre from 5 plots = 70 square feet. No management, too wet to operate.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
American Elm	1	Log/Pole	11		Balsam Fir	High		Variable	Sapling
White Spruce	5	Pole/Log	8		Red Maple	Trace		Variable	Sapling
Northern White Cedar	13	Pole/Log	8		Tag Alder	Medium		Variable	Tall Shrub
Balsam Fir	25	Pole/Sapling	6		Black Ash	Medium		Variable	Sapling
Balsam Poplar	15	Pole/Log	8		Paper Birch	Trace		Variable	Sapling
Paper Birch	2	Pole	6						
Quaking Aspen	35	Log/Pole/XLog	12	68					
Red Maple	4	Pole	7						
<b>40</b>	4134 - Aspen, Spruce/Fir	Poletimber Well	3.9	36	111-140	N/A	Younger aspen stand with a heavy fir component. Diameters on the aspen vary considerably, most areas are barely merchantable but there are some spots where the aspen ranges from 7-8" DBH. Trace of white pine (pole/sap) and red maple (pole/sap). Average ba/acre from 5 plots = 126 square feet. Difficult to tell how wet this stand really is as there was over 1.5 feet of snow on the ground during inventory. No sale records for this stand. Access will be difficult for management, it will have to be cut when adjacent stand 36 is prescribed for a harvest.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Paper Birch	2	Sapling/Pole	4		Black Ash	Low		Variable	Sapling
White Spruce	2	Log	13		Balsam Fir	Full		Variable	Sapling
Quaking Aspen	48	Pole/Sapling	6	36	Tag Alder	Trace		10 - 20 feet	Tall Shrub
Balsam Poplar	13	Pole/Sapling	6		Paper Birch	Low		>20 feet	Sapling
Balsam Fir	35	Sapling/Pole	4						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
<b>41</b>	4199 - Other Mixed Upland Deciduous	Poletimber Well	27.7	41	51-80	N/A	<p>This was originally a red and white pine dominated stand. In 1982, everything was cut out of the stand except for the pine. After hardwoods regenerated, the majority of the overstory pine was removed in 2006 in the sale Westward Clute Red Pine (#53-007-05, Precision). A few clumps of M9 that were never harvested are present in the stand. The majority of the regeneration after the initial harvest was ironwood and white ash, although there are some scattered younger sugar maple as well. A lot of the white ash has died from EAB, however there are still many stems that appear alive and relatively unaffected by EAB. The eastern "finger" of the stand has more of the birch and beech component. After the most recent harvest, white ash saplings are showing up in the gaps vacated by the harvested pine, with sugar maple seedlings in a couple areas. Trace of red maple, fir, and bigtooth aspen in the overstory. Average ba/acre from 9 plots = 66 square feet. There is a little bit of wet ground near the narrow middle part of the stand.</p>				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
American Elm		1	Pole	7		White Ash		Low	Variable	Sapling	
White Pine		2	Log/Pole	10		Beech		Low	Variable	Sapling	
Ironwood		35	Pole/Sapling	5	41	Balsam Fir		Trace	Variable	Sapling	
Beech		2	Pole	6		Paper Birch		Trace	>20 feet	Sapling	
Paper Birch		2	Pole/Sapling	7		Sugar Maple		Medium	>20 feet	Sapling	
Sugar Maple		32	Pole/Log/XLog	8		Ironwood		Medium	>20 feet	Sapling	
Red Pine		7	XLog/Log	20	89						
Basswood		3	Log/XLog	15							
Quaking Aspen		1	Pole/Log	8							
White Ash		15	Pole/Sapling	7							
<b>42</b>	4130 - Aspen	Poletimber Well	22.9	43	81-110	N/A		<p>Aspen poletimber stand of varying quality. The quaking aspen is well-stocked and good quality in some places, but poorly-stocked and low quality in other places. The west edge of the stand becomes wet and has areas without much aspen but almost completely dominated by conifers (mostly fir), often only small diameter trees are present. Some of these wet areas on the west edge appear to be seeps with tag alder and red-osier dogwood present. The hardwood component becomes more prominent along the east edge of the stand, including a couple areas where sugar maple/ironwood is dominant, such as the far northeast corner of the stand. The northern 1/3rd of the stand has quite a bit of serviceberry, including several stems over 4" DBH. Most ash over 5" DBH has been killed by EAB but there appears to be a few that are still hanging on. A few scattered larger diameter red and sugar maple are present in the stand. Trace of paper birch (pole/sap/log), red pine (pole), white pine (pole/sap), and balsam poplar (pole). Average ba/acre from 18 plots = 107 square feet.</p>			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
Quaking Aspen		50	Pole/Log	8	43	Ironwood			Medium	Variable	Sapling
Balsam Fir		14	Pole/Sap/Log	6		Black Ash			Trace	Variable	Sapling
White Spruce		2	Pole/Sap/Log	6		Black Cherry			Medium	Variable	Tall Shrub
White Ash		1	Pole	5		Beech			Low	Variable	Sapling
Black Cherry		3	Pole	6		White Ash			Medium	Variable	Sapling
Ironwood		1	Pole	5		Sugar Maple			Medium	>20 feet	Sapling
Red Maple		7	Pole/Sapling	6	43	Red Osier Dogwood			Low	< 5 feet	Tall Shrub
Sugar Maple		7	Pole/Sapling	6		Serviceberry (Juneberry)			Low	Variable	Tall Shrub
Bigtooth Aspen		15	Pole/Log	8		Red Maple			Low	>20 feet	Sapling
						Tag Alder			Low	10 - 20 feet	Tall Shrub
						Balsam Fir			Medium	Variable	Sapling
						White Spruce		Trace	Variable	Sapling	
<b>43</b>	310 - Herbaceous Openland	Nonstocked	1.6		Unspecified	Managed Opening	<p>Managed wildlife opening that is periodically mowed. 4 apple trees are present; two in the middle, one on the east edge, and one on the northwest edge. The east half of the stand is slightly elevated above the west half. From imagery it looks like the east half may be seasonally wet.</p>				
Sub-Canopy Species		Density	Avg. Height	Size							
Balsam Fir		Trace	>20 feet	Pole							
Apple (spp.)		Trace	>20 feet	Tall Shrub							
Balsam Fir		Trace	Variable	Sapling							
Balsam Poplar		Trace	Variable	Sapling							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
<b>44</b>	6112 - Lowland Aspen	Poletimber Poor	17.7	79	1-50	N/A	<p>Poorly-stocked, wet lowland stand. Black ash used to be the dominant species in the stand but it is now all dead from EAB and fallen over. Standing water throughout the north half of the stand, eventually forming into a defined stream channel as you head southeast and the stand becomes more narrow. Most tree species are present along the edges of the stand, the middle parts tend to be more non-forested. Cedar is mostly at the far northwest and southeast parts of the stand. A lot of the elm is still healthy, including a handful of trees greater than 15" DBH. Most ash regen has been heavily browsed as well as the red osier dogwood. Average ba/acre from 7 plots = 37 square feet. Too wet, no management.</p>				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Paper Birch		2	Pole/Sapling	6		Balsam Fir		Medium	Variable	Sapling	
Basswood		25	Log/Pole	11	79	Tag Alder		Low	10 - 20 feet	Tall Shrub	
Balsam Fir		10	Pole/Sapling	6		Red Osier Dogwood		Medium	< 5 feet	Tall Shrub	
American Elm		9	Pole/Log	8		Paper Birch		Trace	>20 feet	Sapling	
Red Maple		4	Pole/Log	8		American Elm		Trace	Variable	Sapling	
Quaking Aspen		17	Log/Pole/XLog	11		Black Ash		Low	< 5 feet	Seeding	
Northern White Cedar		10	Log/Pole	12		Black Ash		Medium	5 - 10 feet	Sapling	
Balsam Poplar		23	Pole/Log	9	79	Balsam Poplar		Low	Variable	Sapling	
<b>45</b>	4110 - Sugar Maple Association	Sawtimber Well	76.2	105	51-80	N/A		<p>Nice hardwood stand. Thinned in 2012 in the sale Clute Corner Hardwoods (Northwest Hardwoods, #53-015-07). Thinned too heavily in many areas, with BAs under 60 square feet, especially in the east half of the stand. Regeneration has come back heavily to white ash in most places of the stand as well as a thick layer of raspberry. Average ba/acre from 10 plots = 78 square feet. Seasonally wet areas are present in the east half of the stand (see leaf-off imagery and site conditions layer) but were not excluded from the harvest. It will be several entries before this stand can be treated again.</p>			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
Basswood		23	Log	13	105	White Ash			High	5 - 10 feet	Sapling
Balsam Fir		1	Pole	6		White Ash			High	< 5 feet	Seeding
Hemlock		1	Log/XLog	16		Balsam Fir			Trace	Variable	Sapling
Bigtooth Aspen		1	Log/XLog	16		Ironwood			Low	10 - 20 feet	Sapling
Sugar Maple		69	Log/Pole	11	105	Wild Red Raspberry			High	< 5 feet	Tall Shrub
Beech		5	Log/XLog/Pole	15		Common Blackberry			Low	< 5 feet	Tall Shrub
						Beech			Medium	10 - 20 feet	Sapling
<b>46</b>	6229 - Mixed lowland shrub	Nonstocked	3.0	0	Unspecified	No	<p>Only looked at the south and west edges of the stand. Thick lowland shrub component. The old Dog Lake Railroad Grade passes north-south through the middle of the stand and is where most of the noted poletimber stems are located. There is also a small offshoot of the grade that goes west into stand 35. See 98DOQ imagery.</p>				
Sub-Canopy Species		Density	Avg. Height	Size							
Balsam Fir		Trace	>20 feet	Pole							
Balsam Poplar		Trace	>20 feet	Pole							
Black Ash		Low	Variable	Sapling							
Balsam Fir		Trace	Variable	Sapling							
Michigan Holly		Low	5 - 10 feet	Tall Shrub							
Quaking Aspen		Low	>20 feet	Pole							
American Elm		Trace	Variable	Sapling							
Northern White Cedar		Trace	>20 feet	Pole							
Tag Alder		High	Variable	Tall Shrub							





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>47</b>	4136 - Aspen, Mixed Conifer	Poletimber Well	34.8	36	81-110	N/A	Moderate quality aspen stand. Clearcut in 1987 in the sale Osmun Tri-Block Aspen (Chris Riker, #53-027-85). Heavy hardwood component throughout the understory of the stand, with ash being most numerous and most of the smaller stems being free of EAB at this point. Numerous wet areas, seeps, and drainages throughout the stand (see site conditions layer and leaf-off imagery), none were excluded from the harvest. A good amount of hazel is present throughout the stand, which is a rare shrub in most parts of the PRC. Red-osier dogwood is present in many of the wet areas but is being heavily browsed to the point where it is only a few feet tall. The part of the stand east of Osmun Road has a good amount of paper birch regeneration. Trace of basswood (log), red pine (pole), and elm (pole/sap). Average ba/acre from 14 plots = 91 square feet. Most of the stand slopes down gently to the northeast. This stand may potentially be ready for a harvest in 10 years. Exclude all wet areas. Protect rare species and the shrub component.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Paper Birch		2	Pole/Sapling	5		Sugar Maple		Low	>20 feet	Sapling	
Quaking Aspen		51	Pole/Sapling	6	36	Black Cherry		Medium	Variable	Tall Shrub	
Balsam Poplar		14	Pole/Sapling	6		Paper Birch		Trace	>20 feet	Sapling	
Red Maple		2	Sapling/Pole	4		Red Maple		Low	>20 feet	Sapling	
Bigtooth Aspen		5	Pole/Sapling	6		Hazelnut (American)		Low	5 - 10 feet	Tall Shrub	
Sugar Maple		3	Sapling/Pole	4		Balsam Fir		Medium	Variable	Sapling	
White Ash		3	Sapling/Pole	4		Serviceberry (Juneberry)		Trace	Variable	Tall Shrub	
White Pine		1	Pole	6		Balsam Poplar		Trace	Variable	Sapling	
Balsam Fir		18	Pole/Sapling	5		White Spruce		Trace	Variable	Sapling	
White Spruce		1	Pole	7		Black Ash		Low	Variable	Sapling	
						White Ash		High	Variable	Sapling	
						White Ash		Medium	< 5 feet	Seeding	

<b>48</b>	320 - Upland Shrub	Nonstocked	1.1		Unspecified	No	According to the 1932 PRC base map, this is the site of an old logging camp, called "Camp 9" on the map. Pits and mounds, along with what looks like foundation remnants, are present in the east half of the stand. 3 apple trees are in the stand. 1 clump of barberry along the west edge. The raspberry is being heavily browsed by deer. Do not manage this stand due to its historic importance.
Sub-Canopy Species		Density	Avg. Height	Size			
White Ash		Low	< 5 feet	Seeding			
Mixed Grasses		High		Non-Wood			
Autumn Olive		Trace	< 5 feet	Tall Shrub			
Apple (spp.)		Trace	10 - 20 feet	Tall Shrub			
Bracken Fern		High	Unspecified	Non-Wood			
Wild Red Raspberry		High	< 5 feet	Tall Shrub			

<b>49</b>	4134 - Aspen, Spruce/Fir	Poletimber Well	17.9	43	81-110	N/A	Moderate quality aspen stand with diameters that vary considerably. Fir becomes dominant in the south half of the stand. Scattered open areas throughout that did not regenerate well after the previous clearcut in 1980. Some areas with a good component of young sugar maple. A few merchantable poletimber ash are still alive and don't appear to be impacted (yet) by EAB. Trace of white pine, elm, yellow birch, paper birch, basswood, and black cherry in the overstory (all poletimber size). Found one yellow birch sapling in the far southwest corner of the stand. Average ba/acre from 12 plots = 102 square feet. Gently rolling terrain. Towards the west end of the stand, a very wet drainage runs north-south through the stand, going into stand 52 to the south. This stand could be harvested at this time but would benefit from another 10 years of growth.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Spruce		1	Pole	7		White Ash		Low	Variable	Sapling	
White Ash		1	Pole	6		Black Cherry		Trace	Variable	Tall Shrub	
Sugar Maple		7	Pole	6		Ironwood		Low	Variable	Sapling	
Red Maple		10	Pole	6		Beech		Trace	Variable	Sapling	
Bigtooth Aspen		15	Pole/Log	9		Red Maple		Medium	Variable	Sapling	
Quaking Aspen		40	Pole	7	43	Paper Birch		Trace	>20 feet	Sapling	
Balsam Fir		25	Pole	6		Balsam Fir		Medium	Variable	Sapling	
Beech		1	Pole	6		Sugar Maple		Medium	>20 feet	Sapling	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>50</b>	4319 - Mixed Upland Forest	Sapling Medium	23.9	27	51-80	N/A	This stand was clearcut in 1996 in the sale Poplar Spot Sale (Georgia Pacific, #53-005-95). Regeneration was severely impacted by deer and elk browse, but to varying degrees. Upland areas were browsed the hardest and are poorly-stocked but slowly filling in with fir and smaller amounts of spruce and white pine. Several narrow lowland drainages run north-south through the stand and most regenerated very well, including an impressive amount of paper birch. I have seen this situation in other places of the PRC where paper birch on upland soils is heavily browsed but largely left alone when growing in lowland soils. There must be something in the lowland soils that makes the birch unpalatable to deer and elk. The aspen can be found mostly in one single clone along the north edge of the stand. Trace of sugar maple (sap/pole), red maple (sap/pole), red pine (sap/pole), and elm (sap). Trace of Siberian crabapple.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Beech	1	Sapling	3		White Ash	Medium		5 - 10 feet	Sapling
Balsam Fir	39	Sapling/Pole	4	27	Autumn Olive	Trace		5 - 10 feet	Tall Shrub
White Pine	4	Pole/Sapling	6		Balsam Fir	Low		5 - 10 feet	Sapling
Black Spruce	1	Sapling	3		Beech	Trace		5 - 10 feet	Sapling
White Spruce	7	Pole/Sapling	6		Black Cherry	Low		Variable	Tall Shrub
Ironwood	2	Sapling	2		Ironwood	Trace		5 - 10 feet	Sapling
White Ash	2	Sapling/Pole	3		Hazelnut (American)	Low		5 - 10 feet	Tall Shrub
Bigtooth Aspen	1	Pole/Sapling	5		Tag Alder	Low		10 - 20 feet	Tall Shrub
Paper Birch	30	Sapling	2		Willow spp.	Low		Variable	Tall Shrub
Quaking Aspen	6	Sapling/Pole	4						
Balsam Poplar	7	Sapling/Pole	4						

<b>51</b>	4110 - Sugar Maple Association	Sawtimber Well	28.5	105	81-110	N/A	Hardwood stand dominated by high quality sugar maple. Monotonous stand with little species diversity. Thinned in 2012. Regeneration consists almost exclusively of beech, ironwood, and ash. I only noticed a handful of sugar maple saplings. Average ba/acre from 6 plots = 100 square feet. Terrain slopes slightly down to the east/southeast. It will likely be 20 years before this stand is ready for another thinning.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Beech	2	Log/XLog	15		Ironwood	Low		5 - 10 feet	Sapling
Basswood	32	Log/XLog	15		Sugar Maple	Trace		5 - 10 feet	Sapling
Sugar Maple	65	Log/Pole/XLog	13	105	Beech	Medium		Variable	Sapling
Hemlock	1	Log/XLog	15		White Ash	High		5 - 10 feet	Sapling

<b>52</b>	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	8.5	84	141-170	N/A	Diverse stand that is primarily wet lowland. Scattered clumps of dense cedar and/or hemlock can be found throughout the stand, in general closer to the southern stand edge. Red maple is ubiquitous throughout. Some areas with a good yellow birch representation, especially towards the southeast part of the stand. A few younger yellow birch poletimber and sapling stems are also present. White ash used to be a large component of the overstory but it is now all dead and fallen over. Heavy deer browse on the young ash seedlings. A wet drainage runs west-east through the northern part of the stand, and appears that it may be a seasonal stream in the spring. Trace of XL-sized white pine. Average ba/acre from 6 plots = 147 square feet. No management due to the wet soils and cedar/hemlock component.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Balsam Fir	4	Pole/Sapling	5		Beech	Trace		Variable	Sapling
White Ash	1	Pole	7		Yellow Birch	Trace		>20 feet	Sapling
Paper Birch	1	Log/Pole	11		Red Maple	Low		Variable	Sapling
Sugar Maple	1	Pole	6		Sugar Maple	Trace		Variable	Sapling
Basswood	3	Log/XLog	15		White Ash	Medium		< 5 feet	Seeding
Red Maple	32	Pole/Log	9	84	Balsam Fir	Medium		Variable	Sapling
Yellow Birch	6	Log/Pole/XLog	12		Michigan Holly	Trace		5 - 10 feet	Tall Shrub
Hemlock	21	Log/Pole/XLog	14		White Ash	Low		Variable	Sapling
American Elm	1	Log	14						
Northern White Cedar	30	Log/Pole	10						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**53** 3303 - Mixed Low Density Trees Nonstocked 2.2 Unspecified No  
Opening that is filling in with trees. The north half is more open and looks like it was used as a landing a few years ago when the adjacent hardwood stand was thinned.

Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	Trace	>20 feet	Log
Balsam Fir	Low	>20 feet	Pole
Balsam Fir	Trace	>20 feet	Log
Red Maple	Trace	>20 feet	Log
Balsam Poplar	Trace	< 5 feet	Seeding
Quaking Aspen	Low	< 5 feet	Seeding
Black Cherry	Low	>20 feet	Tall Shrub
Balsam Fir	Low	< 5 feet	Seeding
White Ash	Trace	< 5 feet	Seeding
White Spruce	Low	< 5 feet	Seeding
Balsam Poplar	Trace	5 - 10 feet	Sapling
White Spruce	Trace	5 - 10 feet	Sapling
Balsam Fir	Trace	5 - 10 feet	Sapling
Blackberry/Raspberry	Medium	< 5 feet	Tall Shrub

**54** 6118 - Lowland Deciduous with Cedar Poletimber Medium 6.6 75 51-80 N/A  
Diverse stand that could probably be split into two separate stands in the future. The west half of the stand is very wet with a thick understory of holly and poorly-stocked, with primarily red maple in the overstory. The east half of the stand is a little drier and has some clumps of dense cedar and hemlock, along with a mix of other species. Some areas with a nice representation of young yellow birch. Average ba/acre from 6 plots = 82 square feet. No management due to the wet ground.

Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	2	Pole	8	
Yellow Birch	9	Pole	7	
Paper Birch	2	Pole/Log	8	
White Spruce	1	Log/Pole	10	
Red Maple	49	Pole/Log	8	75
Northern White Cedar	20	Pole/Log	9	
Balsam Fir	5	Pole/Sapling	5	
Hemlock	12	Log/Pole/XLog	11	

Sub-Canopy Species	Density	Avg. Height	Size
Yellow Birch	Trace	Variable	Sapling
Black Ash	Low	Variable	Sapling
Red Maple	Trace	>20 feet	Sapling
Michigan Holly	High	5 - 10 feet	Tall Shrub
Balsam Fir	Medium	Variable	Sapling
Tag Alder	Low	10 - 20 feet	Tall Shrub

**55** 4112 - Maple, Beech, Cherry Association Poletimber Well 6.0 75 111-140 N/A  
Moderate quality hardwood stand dominated by red maple. The sugar maple that is present is mostly small diameter and doesn't appear to grow as well on this site as the red maple. Some small clumps of hemlock, mostly along the stand edges. Average ba/acre from 5 plots = 134 square feet. Flat terrain and dry, this stand sits at a slightly higher elevation than surrounding stands. A thinning treatment could be prescribed when adjacent aspen stands to the south are cut.

Canopy Species	% Cover	Size Class	DBH	Age
Hemlock	2	Log/Pole/XLog	11	
Basswood	5	Log/Pole	13	
Balsam Fir	1	Pole/Sapling	5	
Ironwood	1	Pole	6	
Sugar Maple	6	Pole/Log	8	
Red Maple	84	Pole/Log	9	75
Beech	1	Pole	7	

Sub-Canopy Species	Density	Avg. Height	Size
Beech	Low	Variable	Sapling
Balsam Fir	Low	Variable	Sapling
Red Maple	Low	>20 feet	Sapling
White Ash	Low	< 5 feet	Sapling
Sugar Maple	Low	>20 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
<b>56</b>	4319 - Mixed Upland Forest	Poletimber Well	5.2	72	111-140	N/A	Mixed species stand of varying composition. The southern 1/3rd of the stand is mostly hardwoods with some aspen mixed in. The central part of the stand is dominated by fir. The northwest part of the stand becomes lowland with primarily spruce and some cedar. There is a lot of older blowdown and a heavy ash understory in the northwest part. Trace of basswood and white pine. Average ba/acre from 6 plots = 120 square feet. No management needed at this time.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Northern White Cedar		3	Pole/Log	8		Black Ash		Low	5 - 10 feet	Sapling	
Sugar Maple		4	Pole/Log	8		Sugar Maple		Low	>20 feet	Sapling	
Ironwood		1	Pole	5		White Ash		Low	Variable	Sapling	
Black Cherry		1	Pole	6		Paper Birch		Trace	>20 feet	Sapling	
Red Maple		29	Pole/Log	9	72	Beech		Trace	Variable	Sapling	
Quaking Aspen		14	Log/Pole	10		Balsam Fir		Medium	Variable	Sapling	
Balsam Fir		33	Pole/Log	8	72	Black Cherry		Trace	Variable	Tall Shrub	
Paper Birch		6	Log/Pole	12		Ironwood		Low	Variable	Sapling	
White Spruce		9	Log/Pole	11		Red Maple		Low	Variable	Sapling	
						Black Ash		Low	< 5 feet	Seeding	
<b>57</b>	4130 - Aspen	Poletimber Well	16.5	35	81-110	N/A		Moderate quality aspen stand that was previously harvested in 1988 in the sale Osmun Tri-Block Aspen (#53-027-85, Chris Riker). Heavy sugar maple and white ash understory in the west half of the stand. The east half of the stand has more red maple and fir, with some areas of nearly pure red maple. Paper birch tends to be located along disturbed road edges. A few scattered clumps of hemlock and cedar, mostly at the southeast part of the stand. Much of the hemlock has heavy woodpecker damage and does not appear healthy. Most of the larger ash has died from EAB but there are still a few merchantable stems hanging on. Trace of black cherry, white pine, and basswood poletimber. Average ba/acre from 7 plots = 81 square feet. Flat terrain. Some wet ground along the west side of the stand. Two wet drainages flow north-south in the east half of the stand (see site conditions layer). This stand will likely be ready for a harvest next entry. Protect wet areas and exclude areas of good sugar maple regeneration.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
Hemlock		2	Log	13		Michigan Holly			Trace	5 - 10 feet	Tall Shrub
Northern White Cedar		2	Log/Pole	11		Balsam Fir			Low	Variable	Sapling
Red Maple		20	Pole/Sapling	5		American Elm			Trace	>20 feet	Sapling
White Ash		2	Pole/Sapling	5		Sugar Maple			Medium	>20 feet	Sapling
Balsam Fir		5	Pole/Sapling	5		White Ash			High	Variable	Sapling
Balsam Poplar		3	Pole	8		Beech			Trace	Variable	Sapling
Paper Birch		3	Pole/Sapling	5		Red Maple			Medium	Variable	Sapling
Sugar Maple		2	Pole/Sapling	5		Tag Alder			Trace	10 - 20 feet	Tall Shrub
Quaking Aspen		61	Pole	7	35	Ironwood			Trace	Variable	Sapling
						Paper Birch			Trace	>20 feet	Sapling
						Black Cherry			Trace	Variable	Tall Shrub
<b>58</b>	6229 - Mixed lowland shrub	Nonstocked	1.4		Unspecified	No	Small pothole thick with holly.				
Sub-Canopy Species		Density	Avg. Height	Size							
Michigan Holly		Full	5 - 10 feet	Tall Shrub							
Tag Alder		Low	10 - 20 feet	Tall Shrub							
Quaking Aspen		Low	>20 feet	Log							
Red Maple		Low	>20 feet	Pole							
American Elm		Low	>20 feet	Pole							
American Elm		Trace	Variable	Sapling							
Red Maple		Low	Variable	Sapling							
Yellow Birch		Trace	Variable	Sapling							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>59</b>	4319 - Mixed Upland Forest	Poletimber Well	31.0	35	51-80	N/A	<p>In general, this stand is a low quality mix of primarily quaking aspen, BAM, and fir that is barely merchantable at this point. Clearcut in 1988 in the sale Osmun Tri-Block (#53-027-85, Chris Riker). Regeneration is patchy, especially in those areas dominated by fir where there are semi-open non-forested areas mixed in. Aspen and BAM are most prevalent in the middle part of the stand but lacking in many other areas. Quaking aspen diameters vary significantly with some areas still predominantly in the sapling stage. Paper birch has regenerated well in some locations but tends to be much smaller in diameter than other species in the overstory. Wet ground is common all along the west edge of the stand as well as the entire south end, which is very wet and has abundant lowland shrubs. There is also some wet ground in the central part of the stand. Based on old stumps, it appears that a lot of cedar was cut out of this stand, however there is no sign of any cedar regeneration. Trace of sugar maple (pole/sap), elm (pole/sap), and bigtooth aspen (pole). Average ba/acre from 8 plots = 59 square feet (expect this to get higher as diameters increase). Based on current growth observations, this stand probably won't be ready for a treatment for another 20 years. Protect all wet areas and the birch component when that time comes.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Maple	3	Pole/Sapling	5		Black Cherry	Medium		Variable	Tall Shrub
Paper Birch	9	Sapling/Pole	3		White Spruce	Low		Variable	Sapling
Quaking Aspen	33	Pole/Sapling	5		White Ash	Medium		< 5 feet	Seeding
White Pine	5	Pole/Log/Sap	8		Balsam Fir	Medium		Variable	Sapling
Balsam Poplar	11	Pole/Sapling	5		Michigan Holly	Trace		5 - 10 feet	Tall Shrub
Balsam Fir	35	Pole/Sapling	5	35	Nannyberry	Low		5 - 10 feet	Tall Shrub
White Spruce	4	Pole/Sap/Log	6		Beech	Trace		Variable	Sapling
					White Ash	Low		Variable	Sapling
					Paper Birch	Low		10 - 20 feet	Sapling
					Serviceberry (Juneberry)	Trace		Variable	Tall Shrub
					Red Maple	Low		Variable	Sapling
					Tag Alder	Low		Variable	Tall Shrub
					Ironwood	Trace	Variable	Sapling	
<b>60</b>	6120 - Lowland Cedar	Sawtimber Well	11.0	124	141-170	N/A	<p>In general this is a high quality, healthy cedar stand although there are some areas of decline in the southwest part of the stand where the ground becomes much wetter. Some of the nicest groves of cedar can be found along the east/southeast edges. Red maple and paper birch become a much bigger component of the overstory in the north half of the stand, in some places they are the dominant species. There are also areas of upland in the north half. Black ash used to be component of the overstory but are now all dead from EAB. Trace of elm (pole/sap), white pine (Xlog), and white ash (pole). Average ba/acre from 6 plots = 150 square feet. With the exception of the west edge and southeast corner, I think a large portion of this stand would be operable, however regeneration of cedar is virtually impossible with the current browse pressure in the area.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
White Spruce	2	Log	14		Ironwood	Trace		Variable	Sapling
Northern White Cedar	65	Log/Pole	11	124	Red Maple	Low		>20 feet	Sapling
Balsam Fir	4	Pole	6		White Spruce	Trace		Variable	Sapling
Paper Birch	9	Pole/Log	8		American Elm	Trace		Variable	Sapling
Red Maple	20	Log/Pole	11		White Ash	Trace		Variable	Sapling
					Balsam Fir	High		Variable	Sapling
					White Ash	Medium		< 5 feet	Seeding
					Black Ash	Trace		Variable	Sapling
					Tag Alder	Low		Variable	Tall Shrub
					Beech	Trace		Variable	Sapling
<b>61</b>	4110 - Sugar Maple Association	Sawtimber Well	48.0	100	81-110	N/A	<p>Stand thinned in spring/summer of 2016 as part of Big Swale Hardwoods, #53-0015-15-01, Northwest Hardwoods. Decent hardwoods. Most of the ash was cut out of the stand, there was a significant volume of it. A wet drainage system is present in the north half of the stand and drains down into stands 47 and 44 (see site conditions layer). These were not excluded from the harvest and suffered some rutting damage. The portion of the stand east of the road was not thinned and should be left unmanaged to serve as retention. Average ba/acre from 9 plots = 82 square feet. Two old borrow pits are on the east side of the stand adjacent to Clearing Road.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Beech	3	Log/XLog	13		Beech	Medium		Variable	Sapling
Sugar Maple	50	Log/Pole	10	100	Ironwood	Medium		5 - 10 feet	Sapling
Basswood	40	Log/XLog	13	100	White Ash	Low		5 - 10 feet	Sapling
Hemlock	2	Log/XLog	15		White Ash	Medium		< 5 feet	Seeding
Red Maple	5	Log/Pole	11		Blackberry/Raspberry	Medium		< 5 feet	Tall Shrub



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**62** 6117 - Lowland Deciduous, Mixed Coniferous Poletimber Well 5.1 83 111-140 N/A

Lowland stand that is highly variable in composition. The east half has a wide mix of species. The central/southwest part of the stand resembles a bog and has sphagnum in the understory, with black spruce and white pine being the primary overstory species. The far west end of the stand is poorly stocked, with a thick understory of holly. There are a few areas with an excellent component of young yellow birch. It looks like black ash used to be a large component of the overstory in some areas, but it is now all dead from EAB and has fallen over. Average ba/acre from 5 plots = 132 square feet. No management due to wet ground.

Canopy Species	% Cover	Size Class	DBH	Age
Black Spruce	11	Pole/Sapling	5	
White Pine	18	Log/Pole/XLog	11	
American Elm	1	Pole	7	
Yellow Birch	8	Pole	6	
Balsam Poplar	4	Pole/Log	8	
Paper Birch	2	Pole/Log	8	
Hemlock	1	Log	11	
Balsam Fir	2	Pole/Sapling	5	
Quaking Aspen	4	Pole/Log	8	
Northern White Cedar	7	Log/Pole	11	123

Sub-Canopy Species	Density	Avg. Height	Size
Yellow Birch	Low	>20 feet	Sapling
Black Ash	Low	Variable	Sapling
Michigan Holly	High	5 - 10 feet	Tall Shrub
Black Spruce	Low	>20 feet	Sapling
Balsam Fir	Low	Variable	Sapling

**63** 6132 - Mixed Lowland Forest with Cedar Poletimber Medium 31.8 67 51-80 N/A

Very wet lowland stand that is poorly stocked in many areas. Black ash used to be the dominant tree species in the stand but it is now all dead from EAB. Quality is generally low for most species although there are a few upland pockets, in the south half of the stand, where the maple and birch are larger in diameter (see 98DOQ imagery for upland areas). The far southeast part of the stand has a lot of standing water and appears to be the headwaters for a spring that flows east into the adjacent L type. Trace of yellow birch (pole), white pine (log/Xlog), and black spruce (pole). Average ba/acre from 8 plots = 73 square feet. The previous stand examiner indicated that this stand was harvested at one time and most of the larger trees are residual left after the cut. I couldn't find any sale records nor any indication of a past harvest from on the ground observations or imagery, with the possible exception of the small areas of upland at the south edge of the stand.

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	7	Pole	6	
Red Maple	33	Pole/Log	8	67
Paper Birch	17	Pole/Log	8	
Quaking Aspen	2	Log	12	
Basswood	2	Log	14	
Northern White Cedar	35	Log/Pole	10	67
White Spruce	2	Pole/Log	8	
Balsam Poplar	1	Log/Pole	11	
American Elm	1	Pole/Log	8	

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Low	>20 feet	Sapling
White Spruce	Trace	Variable	Sapling
White Ash	Trace	Variable	Sapling
Beech	Trace	Variable	Sapling
Balsam Fir	Medium	Variable	Sapling
Michigan Holly	Medium	5 - 10 feet	Tall Shrub
Black Ash	Trace	Variable	Sapling
Nannyberry	Low	5 - 10 feet	Tall Shrub
Yellow Birch	Trace	Variable	Sapling
Paper Birch	Low	Variable	Sapling
Tag Alder	Medium	10 - 20 feet	Tall Shrub
American Elm	Trace	Variable	Sapling
Black Ash	Low	< 5 feet	Seeding

**64** 4130 - Aspen Poletimber Well 11.7 48 141-170 N/A

Nice stand of aspen with a significant hardwood component. Most ash are dead but there are still some merchantable stems that are hanging on. Wet drainages run north-south through the middle of the stand and the eastern 1/4 of the stand is seasonally wet with pit and mound topography. Trace of paper birch (pole/sap), elm (pole), and hemlock (log/xlog). Average ba/acre from 6 plots = 145 square feet. Browse is a serious impediment to successful natural regeneration in this area, as evidenced by adjacent stands to the north. Manage this stand together with stand 59 to the south when that becomes available for management. Exclude all drainages and wet areas.

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	20	Pole/Log	9	48
Sugar Maple	10	Pole/Sapling	6	
Red Maple	16	Pole/Sapling	6	48
White Ash	3	Pole	7	
Balsam Fir	6	Pole/Sapling	6	
Quaking Aspen	45	Pole/Log	8	48

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	Variable	Sapling
Beech	Trace	Variable	Sapling
Ironwood	Trace	Variable	Sapling
Sugar Maple	Medium	>20 feet	Sapling
Red Maple	Medium	>20 feet	Sapling
White Ash	Low	>20 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>65</b>	4134 - Aspen, Spruce/Fir	Poletimber Well	50.0	48	111-140	N/A	Moderate quality aspen stand which could be split into 2 stands based on site quality. The west half of the stand has a large hardwood influence, including some areas of excellent sugar maple regeneration. The southwest corner next to the old landing has a small area (roughly 1-2 acres) that is nearly pure hardwoods with less of an aspen component. The east half of the stand is lower site quality and has a large amount of fir (see CIR imagery). Aspen diameters vary considerably throughout, with many areas still in the 6-7" diameter range, likely a result of the varying site quality and competing vegetation in the canopy. Trace of elm, basswood, black cherry, yellow birch, white pine, and white spruce poletimber. Trace of residual cedar and hemlock that were not cut the last time the stand was clearcut. Average ba/acre from 21 plots = 124 square feet. Mostly flat terrain, however there are some north-south running swales in the east half of the stand that are wet. In addition, there are numerous other vernal pools and drainages scattered throughout the stand, including an east/west running seasonal stream at the northeast end of the stand (see site conditions layer). Hold ten years to let the aspen put on more growth. When treating, exclude all wet areas, streams, and vernal pools.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	22	Pole/Sapling	5		Balsam Fir	High	Variable	Sapling
Quaking Aspen	43	Pole	7	48	Ironwood	Trace	Variable	Sapling
Sugar Maple	4	Pole/Sapling	5		American Elm	Trace	Variable	Sapling
Red Maple	15	Pole/Sapling	6		White Ash	Low	Variable	Sapling
Bigtooth Aspen	12	Pole/Log	8		Paper Birch	Trace	>20 feet	Sapling
Paper Birch	2	Pole/Sapling	6		Sugar Maple	Medium	>20 feet	Sapling
Balsam Poplar	2	Pole/Log	8		Tag Alder	Trace	10 - 20 feet	Tall Shrub
					Red Maple	Medium	>20 feet	Sapling
					Beech	Trace	Variable	Sapling

<b>66</b>	4119 - Mixed Northern Hardwoods	Poletimber Well	15.7	48	111-140	N/A	This stand was clearcut at the same time in 1975 as adjacent stands 64, 76, and 77 and regenerated very well to hardwoods. Some species diversity is present but overall it is dominated by red and sugar maple. Sugar maple is common in the south half of the stand while the north half transitions to more red maple. Most white ash are dead but there are a few merchantable stems, including some of sawlog size, that are still alive. Average ba/acre from 10 plots = 126 square feet. This stand will be available for a thinning in the future, possibly next entry if the trees put on enough growth.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	28	Pole/Sap/Log	6	48	Paper Birch	Trace	>20 feet	Sapling
Basswood	1	Pole	7		Red Maple	Medium	>20 feet	Sapling
White Ash	4	Pole/Log	8		Sugar Maple	High	>20 feet	Sapling
Yellow Birch	1	Pole	6		Beech	Trace	Variable	Sapling
Sugar Maple	32	Pole/Sapling	5	48	White Ash	Trace	>20 feet	Sapling
Ironwood	5	Pole/Sapling	5		Ironwood	Low	>20 feet	Sapling
Hemlock	2	Log/XLog	15					
Black Cherry	1	Pole	7					
Paper Birch	7	Pole/Sapling	6					
Pin Cherry	1	Pole	6					
Bigtooth Aspen	2	Log	11					
Quaking Aspen	15	Log/Pole	10					
Balsam Poplar	1	Pole/Log	8					

<b>67</b>	6113 - Lowland Maple	Poletimber Well	2.2	52	81-110	N/A	Small stand dominated by red maple that is a mix of upland and lowland. The north and west ends of the stand are seasonally wet. The middle of the stand has a wet pocket with lots of holly growing underneath the maple. The southeast end of the stand is an upland knob with larger diameter, older red maple. Trace of white spruce (pole) and balsam poplar (pole). Average ba/acre from 4 plots = 88 square feet. With the exception of the upland knob at the southeast end, it looks like the rest of this stand may have been cut when adjacent stand 76 to the east was clearcut. However, the majority of this stand is now too wet to operate in and should be left unmanaged.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	1	Log/Pole	11		Balsam Fir	Low	Variable	Sapling
Red Maple	72	Pole/Sap/Log	7	52	Red Maple	Full	>20 feet	Sapling
Quaking Aspen	25	Log/Pole	10		Michigan Holly	Medium	5 - 10 feet	Tall Shrub
Balsam Fir	2	Pole	5		Black Ash	Trace	< 5 feet	Seeding
					Tag Alder	Trace	10 - 20 feet	Tall Shrub
					Beech	Trace	Variable	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
68	6220 - Alder/willow	Nonstocked	5.2		Unspecified	No	This stand appears to be periodically flooded by beavers. It looks like it has been dry for a few years now which has allowed some younger alder and willow to grow in.				
								Sub-Canopy Species	Density	Avg. Height	Size
								Tag Alder	Medium	Variable	Tall Shrub
								Red Maple	Trace	Variable	Sapling
								Balsam Fir	Trace	< 5 feet	Seeding
								Willow spp.	Medium	< 5 feet	Tall Shrub
								Leatherleaf	Medium	< 5 feet	Tall Shrub
								Red Maple	Trace	>20 feet	Pole
69	3105 - Mixed Upland Herbaceous	Nonstocked	3.8		Unspecified	Managed Opening	This opening looks like it was mowed or planted in the past, although it must have been several years ago as the berm and closed road leading to the stand is becoming slightly overgrown. Lots of spotted knapweed throughout the field. The east side of the stand is not managed and has scattered clumps of spruce/fir and some cherry.				
								Sub-Canopy Species	Density	Avg. Height	Size
								Balsam Fir	Low	Variable	Sapling
								White Spruce	Trace	>20 feet	Log
								Mixed Grasses	Full	Unspecified	Non-Wood
								Spotted Knapweed	High	Unspecified	Non-Wood
								White Spruce	Low	Variable	Sapling
								Balsam Fir	Low	>20 feet	Pole
								Bracken Fern	Medium	Unspecified	Non-Wood
								Autumn Olive	Trace	5 - 10 feet	Tall Shrub
								Balsam Fir	Low	>20 feet	Log
								Black Cherry	Low	>20 feet	Tall Shrub
70	3303 - Mixed Low Density Trees	Nonstocked	10.5		Unspecified	No	This stand was clearcut in 1996 in the sale Poplar Spot Sale (Georgia Pacific, #53-005-95) but failed to regenerate due to deer and elk browse. An elk enclosure is in the east half of the stand and shows the severity of browse damage that has occurred. Inside the enclosure is a fully-stocked mix of quaking aspen and paper birch. The fence is falling down in places. Outside of the enclosure, heavy browse is still evident on almost any species that is trying to seed in (even the cherry!), with the exception of the fir and oddly enough, the paper birch. There are several narrow north-south running wet drainages in the stand and most have a bit of birch regeneration in them (see site conditions layer and leaf-off imagery for drainage locations). I have seen this situation in other places of the PRC where paper birch on upland soils is heavily browsed but largely left alone when growing in lowland soils. There must be something in the lowland soils that makes the birch unpalatable to deer and elk. Trace of Siberian crabapple in the stand.				
								Sub-Canopy Species	Density	Avg. Height	Size
								Paper Birch	Low	10 - 20 feet	Sapling
								Quaking Aspen	Low	>20 feet	Pole
								Balsam Poplar	Trace	< 5 feet	Seeding
								Bigtooth Aspen	Trace	>20 feet	Log
								Blackberry/Raspberry	Medium	< 5 feet	Tall Shrub
								White Spruce	Trace	Variable	Sapling
								Quaking Aspen	Low	< 5 feet	Seeding
								Balsam Fir	Low	Variable	Sapling
								Ironwood	Trace	5 - 10 feet	Sapling
								Balsam Fir	Low	>20 feet	Pole
								Willow spp.	Trace	< 5 feet	Tall Shrub
								Paper Birch	Trace	>20 feet	Pole
								Autumn Olive	Trace	5 - 10 feet	Tall Shrub
								Black Cherry	Medium	< 5 feet	Tall Shrub
								Hazelnut (American)	Low	< 5 feet	Tall Shrub





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																																	
<b>71</b>	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	14.7	35	81-110	N/A	Mixed species stand that was cut in 1988 at the same time as stand 57 to the west in the sale Osmun Tri-Block Aspen, cut by Chris Riker. Aspen did not regenerate nearly as well in this stand, although it is still the most common species. Clumps of hemlock, with some cedar mixed in, were left and are mostly in the northeast part of the stand. A few larger red maple and fir can be found near the hemlock clumps as well. A couple of residual basswood at the north end. Trace of white spruce and paper birch. Average ba/acre from 6 plots = 92 square feet. Mostly flat terrain. A few wet pockets are present in the stand but not easily distinguishable on imagery. This stand may be ready next entry, although the heavy fir competition seems to be slowing the aspen growth. Protect all wet areas when a harvest is prescribed.																																																																																	
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<b>72</b>	6229 - Mixed lowland shrub	Nonstocked	2.4	0	Unspecified	No	Small lowland shrub stand with a lot of red-osier dogwood. Browse has kept most of it below 5 feet tall but there are a few patches that have made it past the browse height. It looks like there is a lot of sedge in the stand but it's difficult to tell as the stand is snow-covered at the moment.																																																																																	
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<b>73</b>	4130 - Aspen	Poletimber Well	3.7	45	111-140	N/A	Small stand of moderate quality aspen. Previously clearcut by DNR personnel to serve as a wildlife cut. Good sugar maple component that increases in abundance the further west you go in the stand. Most white ash is dead but there are still a few stems that appear to be alive. Most of the birch is at the far east end. Average ba/acre from 5 plots = 118 square feet. This stand slopes gradually down to the north and becomes wet along the north edge. Prescribe another manual wildlife cut next entry.																																																																																	
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments									
74	3303 - Mixed Low Density Trees	Nonstocked	2.8		Unspecified	No	Small opening that is slowly filling in with trees of a variety of species, primarily balsam poplar, quaking aspen, and fir. A good shrub component in places. There are scattered invasive honeysuckle and autumn olive throughout.									
								Sub-Canopy Species	Density	Avg. Height	Size					
								Quaking Aspen	Low	Variable	Sapling					
								White Pine	Trace	>20 feet	Pole					
								Blackberry/Raspberry	Medium	< 5 feet	Tall Shrub					
								Amur Honeysuckle	Low	5 - 10 feet	Tall Shrub					
								Balsam Fir	Low	Variable	Sapling					
								Sugar Maple	Trace	Variable	Sapling					
								White Pine	Low		Sapling					
								Balsam Poplar	Low	< 5 feet	Seeding					
								Black Cherry	Medium	Variable	Tall Shrub					
								White Spruce	Trace	>20 feet	Pole					
								Balsam Poplar	Medium	Variable	Sapling					
								Autumn Olive	Trace	5 - 10 feet	Tall Shrub					
								Bracken Fern	Medium	Unspecified	Non-Wood					
								Balsam Fir	Trace	>20 feet	Pole					
Paper Birch	Trace	>20 feet	Pole													
Balsam Poplar	Medium	>20 feet	Pole													
Serviceberry (Juneberry)	Trace	Variable	Tall Shrub													
75	4130 - Aspen	Poletimber Well	1.7	41	81-110	N/A	Strip cut along the swamp that was done for winter deer browse. Well-stocked, although not dominated by aspen in all areas as there are some spots with a heavier component of fir and red maple in the overstory. Site quality increases at the east end and is where most of the bigtooth aspen and sugar maple can be found. Some merchantable white ash are still alive. Trace of sugar maple (pole), cedar (pole/log), and black cherry (pole) in the overstory. Average ba/acre from 4 plots = 93 square feet. Mostly dry ground except for along the north edge.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Hemlock	1	Log/XLog	16		White Ash	Low	>20 feet	Sapling
								Paper Birch	1	Pole/Sapling	6		Balsam Fir	High	Variable	Sapling
								White Ash	2	Pole	5		Beech	Trace	Variable	Sapling
								Bigtooth Aspen	8	Pole/Log	9		Ironwood	Trace	Variable	Sapling
								Quaking Aspen	52	Pole	8	41	Paper Birch	Trace	>20 feet	Sapling
								Red Maple	23	Pole/Sapling	6		Red Maple	High	>20 feet	Sapling
								Balsam Fir	13	Pole/Sapling	6		Black Cherry	Trace	>20 feet	Tall Shrub
													Sugar Maple	Trace	>20 feet	Sapling
76	4130 - Aspen	Poletimber Well	8.9	48	141-170	N/A	Moderate to high quality aspen stand sitting on a gradual southwest facing slope. Site quality is better in the northeast half of the stand, which is where most of the bigtooth aspen and maple is located. The west/southwest 1/2 of the stand has more quaking aspen and fir. Some scattered large diameter white spruce along the lowland edge. Trace of basswood (pole), paper birch (pole/sap), and white pine (Xlog). Average ba/acre from 9 plots = 149 square feet.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								White Spruce	2	Log/Pole/XLog	14		White Ash	Trace	>20 feet	Sapling
								Sugar Maple	2	Pole/Sapling	5		Balsam Fir	Medium	Variable	Sapling
								Red Maple	15	Pole/Sap/Log	6		Red Maple	Medium	>20 feet	Sapling
								Quaking Aspen	50	Pole/Log	8	48	Sugar Maple	Medium	>20 feet	Sapling
								Bigtooth Aspen	20	Log/Pole	10		Black Cherry	Trace	Variable	Tall Shrub
								Balsam Fir	11	Pole/Sapling	6		White Spruce	Trace	Variable	Sapling
													Serviceberry (Juneberry)	Trace	Variable	Tall Shrub



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**77** 4191 - Mixed Upland Deciduous with Conifer Poletimber Well 11.3 48 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	10	Pole/Sapling	7	
Sugar Maple	3	Pole/Sapling	7	
White Ash	2	Pole	7	
Hemlock	8	Log/XLog/Pole	15	
Quaking Aspen	29	Pole/Log	8	48
White Pine	2	Log/Pole/XLog	14	
Paper Birch	4	Pole/Sapling	7	
Red Maple	39	Pole/Sap/Log	7	48
Yellow Birch	2	Pole/Sapling	6	
Black Cherry	1	Pole	6	

Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	Low	>20 feet	Sapling
Paper Birch	Trace	>20 feet	Sapling
Red Maple	High	>20 feet	Sapling
Balsam Fir	Medium	Variable	Sapling
White Ash	Low	>20 feet	Sapling
Michigan Holly	Trace	5 - 10 feet	Tall Shrub
Yellow Birch	Trace	>20 feet	Sapling

This stand was clearcut at the same time as adjacent stands 64 to the north and 76 to the south, and regenerated to a diverse mix of species, although dominated by red maple and quaking aspen. Aspen tends to be most numerous at the north and south ends, while the middle part of the stand is the most diverse, with a good component of yellow and paper birch, as well as several merchantable white ash stems that are still alive. Diameters are still small on most species with the exception of the quaking aspen. Scattered clumps of residual hemlock are present throughout the stand, with a few cedar mixed in here and there. A wetland pocket filled with holly is in the middle of the stand and has white pine growing both in it and around the edges. Pit and mound topography is present throughout the majority of the stand, with some areas holding water permanently, and I'm guessing most of this stand is wet in the spring with numerous vernal pools. An old road runs east-west through the middle, some ditches were created to divert water. Average ba/acre from 6 plots = 108 square feet. Most of this stand should be excluded from any future harvest, due to the amount of wet ground that is present throughout. Portions of the north and south ends might be suitable for harvest when adjacent stands are prescribed.

**78** 4199 - Other Mixed Upland Deciduous Poletimber Well 2.5 48 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	7	Pole	7	
Sugar Maple	32	Pole/Sap/Log	7	
Balsam Poplar	7	Pole/Log	9	
Balsam Fir	7	Pole/Log	8	
White Spruce	1	Log	12	
Paper Birch	2	Pole	6	
Black Cherry	2	Pole	6	
Ironwood	3	Pole/Sapling	5	
Quaking Aspen	39	Pole/Log	9	48

Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	Trace	Variable	Sapling
Balsam Fir	Trace	Variable	Sapling
Sugar Maple	High	>20 feet	Sapling
Serviceberry (Juneberry)	Trace	>20 feet	Tall Shrub
Paper Birch	Trace	>20 feet	Sapling
Red Maple	Low	>20 feet	Sapling
Black Cherry	Low	>20 feet	Tall Shrub
Ironwood	Medium	Variable	Sapling
Autumn Olive	Trace	5 - 10 feet	Tall Shrub

Mixed aspen/hardwood stand. The aspen is generally poor quality. Very nice advanced sugar maple understory in most parts of the stand. The sugar maple in the overstory is a combination of residual trees that were left from the previous cut and new ingrowth. The fir and spruce component is mostly along the west edge. Trace of elm (pole/sap). Average ba/acre from 4 plots = 95 square feet. Let this stand mature and manage for hardwoods.

**79** 6112 - Lowland Aspen Poletimber Well 3.8 43 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Basswood	5	Log/Pole	13	
Balsam Poplar	4	Log/Pole	11	
Black Cherry	5	Pole	7	
Quaking Aspen	40	Pole/Log	9	43
Red Maple	4	Pole/Log	8	
Balsam Fir	35	Pole/Log	8	
White Pine	3	Pole	8	
Paper Birch	4	Pole	7	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Medium	Variable	Sapling
White Ash	Low	Variable	Sapling
Tag Alder	Trace	10 - 20 feet	Tall Shrub
Ironwood	Trace	Variable	Sapling
Black Ash	Medium	Variable	Sapling
American Elm	Trace	Variable	Sapling
Beech	Trace	Variable	Sapling
Black Cherry	Low	Variable	Tall Shrub

Variable stand with a lot of wet ground. The east half of the stand is very wet and seems to be a connecting drainage between stands 29 to the north and 44 to the south. Aspen is dominant in the east half of the stand with a heavy black ash understory. The west half of the stand is more of a transition between upland/lowland and is dominated by balsam fir. It appears that most of the stand was harvested at some time, likely when adjacent stand 42 was cut. Average ba/acre from 5 plots = 98 square feet. No management due to the wet soils.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>80</b>	4130 - Aspen	Poletimber Well	12.0	43	81-110	N/A	Quaking aspen stand of varying quality, some areas show excellent growth while others do not. Clearcut in 1980 by Richard Wregglesworth. The stand slopes down gently to the east becoming very wet along the east boundary. Red-osier dogwood, heavily browsed and below 3 feet tall, becomes common at the ground level in wet areas. Heavy ash understory throughout most of the stand, with some merchantable trees that are still alive and appear relatively unaffected by EAB. The sugar maple understory is more common in the west half of the stand and there are a few small pockets of nearly pure hardwoods along the western edge next to the old road. Trace of elm (pole), black cherry (pole), white pine (pole), and paper birch (pole) in the overstory. Average ba/acre from 9 plots = 108 square feet.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Paper Birch	3	Pole/Sapling	6		Paper Birch	Trace		>20 feet	Sapling
Quaking Aspen	66	Pole/Log	8	43	White Ash	High		Variable	Sapling
Balsam Fir	18	Pole/Sap/Log	6		Sugar Maple	Low		>20 feet	Sapling
White Ash	2	Pole	5		Black Cherry	Medium		Variable	Tall Shrub
Red Maple	3	Pole	7		Ironwood	Low		Variable	Sapling
White Spruce	1	Pole/Log	8		Red Osier Dogwood	Low		< 5 feet	Tall Shrub
Ironwood	2	Pole	5		Balsam Poplar	Trace		Variable	Sapling
Sugar Maple	3	Pole/Sapling	5		Balsam Fir	Low		Variable	Sapling
Balsam Poplar	2	Pole	8		Serviceberry (Juneberry)	Trace		Variable	Tall Shrub
					Red Maple	Low		>20 feet	Sapling
					Hazelnut (American)	Trace		5 - 10 feet	Tall Shrub
					American Elm	Trace		Variable	Sapling
<b>81</b>	6220 - Alder/willow	Nonstocked	4.0	0	Unspecified	No	West McMasters Creek flows through this stand. The stream channel is somewhat undefined west of Osmun Road as the drainage/culvert likely isn't big enough and is causing the stream to back up, but east of the road a defined stream channel is present. West of the road is heavier to willow with a lot of ash saplings. East of the road is initially heavier to alder, eventually transitioning to more of a wet meadow/emergent wetland.		
Sub-Canopy Species	Density	Avg. Height	Size						
Quaking Aspen	Trace	>20 feet	Pole						
Paper Birch	Trace	>20 feet	Sapling						
Balsam Poplar	Trace	Variable	Sapling						
Tag Alder	High	10 - 20 feet	Tall Shrub						
Balsam Poplar	Low	>20 feet	Pole						
Black Ash	Medium	Variable	Sapling						
American Elm	Trace	>20 feet	Pole						
Balsam Fir	Low	Variable	Sapling						
Balsam Fir	Trace	>20 feet	Pole						
Willow spp.	High	Variable	Tall Shrub						
American Elm	Trace	Variable	Sapling						
<b>82</b>	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	6.9	78	51-80	N/A	Wet lowland hardwood stand of varying quality. A wet drainage runs north-south down the middle of the entire stand (see leaf-off imagery). The stand becomes slightly drier on both sides of the drainage as the site transitions to upland, but it still appears seasonally wet with pit and mound topography common throughout. There used to be a lot of white ash in the stand but it is now all dead due to EAB. As a result, stocking is low in several areas. Sugar maple is the most common species but is stunted and not growing well due to the wet soils. Basswood, on the other hand, is growing much better. The elm is mostly healthy with a few sawtimber trees present. Average ba/acre from 7 plots = 77 square feet. No management due to the wet soils.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Basswood	32	Log/Pole	12		Balsam Fir	Trace		Variable	Sapling
Quaking Aspen	3	Log/Pole/XLog	11		Ironwood	Low		Variable	Sapling
Paper Birch	8	Log/Pole	11		Beech	Medium		Variable	Sapling
Yellow Birch	4	Pole/Log	8		White Ash	Medium		< 5 feet	Seeding
Red Maple	5	Pole	6		White Ash	High		Variable	Sapling
Sugar Maple	39	Pole/Sap/Log	7	78	Black Ash	Low		Variable	Sapling
Beech	6	Pole	6		Sugar Maple	Low		>20 feet	Sapling
Ironwood	1	Pole	5						
American Elm	2	Pole/Log	8						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
<b>83</b>	4134 - Aspen, Spruce/Fir	Poletimber Well	2.7	47	111-140	N/A	This stand was clearcut, along with stands 2 and 86, by DNR staff in 1976 for winter deer browse. It regenerated primarily to aspen and fir. Most ground appears dry except for the far southern end which becomes wet. Trace of paper birch (pole/sap) and cedar (log). Average ba/acre from 2 plots = 135 square feet. Exclude wet areas from any future harvesting (hard factor). Manage with stand 4 when that is cut again.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Red Maple		3	Pole/Sapling	5		Sugar Maple		
Quaking Aspen		48	Pole/Log	8	47	White Ash		
Balsam Poplar		4	Pole	8		Red Maple		
Balsam Fir		37	Pole/Sapling	6		Balsam Fir		
Hemlock		1	Log/XLog	15				
Sugar Maple		7	Pole/Sapling	5				
						<b>Density</b>		
						<b>Avg. Height</b>		
						<b>Size</b>		
<b>84</b>	6111 - Lowland Balsam Poplar	Sawtimber Medium	3.2	72	51-80	N/A	Mixed species stand sitting on very wet ground. Best stocking is along the west edge where the stand transitions to upland and is slightly drier. The middle part of the stand is poorly stocked and has standing water. Black ash used to be the dominant species in this part of the stand but is now all dead and fallen over. Due to the snow, it's unclear if a stream passes through this stand or if it is just a drainage. The highbush cranberry is at the north edge adjacent to Clute Road. Average ba/acre from 5 plots = 74 square feet.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Red Maple		4	Log/Pole	12		American Elm		
Balsam Fir		5	Pole	6		American Highbush Cranberry		
Northern White Cedar		19	Log/Pole/XLog	12		Red Osier Dogwood		
Sugar Maple		3	Pole/Log	8		Tag Alder		
Quaking Aspen		3	Log	14		Black Ash		
Balsam Poplar		43	Log/Pole	11	72	White Ash		
Basswood		19	Log/XLog/Pole	13		Balsam Fir		
White Spruce		4	Log/Pole	11				
						<b>Density</b>		
						<b>Avg. Height</b>		
						<b>Size</b>		
<b>85</b>	6130 - Fir, Aspen, Maple	Sapling Well	2.8	36	51-80	N/A	Mixed species lowland stand with a small stream running east-west through the middle. Lots of small diameter stems in the stand however I see no evidence, nor are there any sale records, for a past harvest in this stand. Average ba/acre from 4 plots = 73 square feet. No management due to the wet ground and the stream influence.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Northern White Cedar		8	Pole/Log	8		Willow spp.		
Balsam Poplar		28	Pole	7		Balsam Fir		
Paper Birch		21	Sapling/Pole	4		Tag Alder		
Quaking Aspen		4	Pole/Sapling	5		Black Ash		
Balsam Fir		36	Sapling/Pole	4	36			
White Spruce		3	Pole/Log	8				
						<b>Density</b>		
						<b>Avg. Height</b>		
						<b>Size</b>		
<b>86</b>	42330 - Upland Fir	Poletimber Well	5.2	47	111-140	N/A	This stand was clearcut by DNR staff in 1976 for winter deer browse. It regenerated primarily to fir although there are a few small pockets with a nice hardwood representation. Mostly upland except for some wetter ground along the west edge. There is also a small drainage at the far southeast end of the stand. Most merchantable white ash are dead from EAB but there appears to still be a couple that are alive. Trace of white pine (log/pole) and cedar (log) in the overstory. Average ba/acre from 4 plots = 135 square feet. Manage together with stand 4 to the south.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Quaking Aspen		9	Pole/Log	8	47	Sugar Maple		
White Ash		1	Pole	6		White Ash		
Paper Birch		5	Pole/Sapling	5		Ironwood		
White Spruce		1	Pole/Log	8		Paper Birch		
American Elm		1	Pole	8		Red Maple		
Balsam Poplar		5	Pole/Log	8		Balsam Fir		
Balsam Fir		65	Pole/Sap/Log	7	47			
Red Maple		10	Pole/Sapling	6				
Sugar Maple		3	Sapling/Pole	4				
						<b>Density</b>		
						<b>Avg. Height</b>		
						<b>Size</b>		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
<b>87</b>	4319 - Mixed Upland Forest	Poletimber Well	3.9	83	111-140	N/A	Two-aged stand of large, overmature aspen with a younger age class of spruce and fir that is now recruiting into the overstory. The fir is dense in many areas. The aspen is mostly low quality and full of rot, serving well as wildlife trees. Random component of scattered sugar maple. A few merchantable white ash are still alive. Mostly an upland stand that slopes down to the southwest, becoming wet along the edges. It looks like this stand may have been harvested long ago as there are old cedar stumps in places. Trace of cedar (log) and white pine (log) in the overstory. Average ba/acre from 5 plots = 124 square feet. A railroad grade runs north-south through the west end (see 98DOQ imagery). This stand is available for harvest and could be treated with stand 81 in Compartment 11 when that is prescribed.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Spruce		6	Pole/Log	8		Balsam Fir		Full	Variable	Sapling	
Balsam Poplar		3	Log	12		White Ash		Low	>20 feet	Sapling	
Quaking Aspen		40	Log/XLog/Pole	14	83	White Spruce		Trace	Variable	Sapling	
White Ash		1	Pole	6							
Paper Birch		1	Log	11							
Red Maple		3	Pole	7							
Bigtooth Aspen		2	Log/Pole/XLog	11							
Balsam Fir		40	Pole	6	42						
Sugar Maple		4	Pole/Log	8							
<b>88</b>	4199 - Other Mixed Upland Deciduous	Poletimber Well	2.0	48	51-80	N/A		This stand was clearcut at the same time as stand 98 to the south but regenerated well to sugar maple. There is still a decent aspen component but hardwoods are dominant. Diameters on the sugar maple are still small and just approaching merchantability in most places. A few scattered residual hemlock and cedar throughout.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
Quaking Aspen		28	Pole/Log	8	48	Red Maple			Trace	>20 feet	Sapling
Sugar Maple		52	Sapling/Pole	4	48	Paper Birch			Trace	>20 feet	Sapling
Paper Birch		5	Pole/Sapling	5		White Ash			Low	Variable	Sapling
Balsam Poplar		2	Pole	8		Ironwood			Low	Variable	Sapling
White Ash		1	Pole/Sapling	6		Sugar Maple			High	>20 feet	Sapling
Red Maple		3	Pole	6							
Ironwood		4	Pole/Sapling	5							
Basswood		2	Pole	6							
Hemlock		2	Log/XLog	16							
Northern White Cedar		1	Log	14							
<b>89</b>	4134 - Aspen, Spruce/Fir	Poletimber Well	6.9	48	111-140	N/A	Aspen stand of varying size and quality. The south edge of the stand has a heavy fir component and the aspen in this area is barely merchantable. Aspen diameters increase along the north edge of the stand as the fir component diminishes and site quality becomes better. Some pockets of very good maple regeneration along the north edge of the stand. The northeast portion of the stand is an area of seasonally wet ground that forms a drainage, heading south/southeast into stand 4. Pit and mound topography is present in this area and vernal pools are likely to occur in the spring. A few residual cedar are scattered throughout the stand as well as a handful of large diameter hemlock. The far west end of the stand has some large diameter trees, notably a few high quality white spruce bordering the U type (stand 53). Most larger ash have died from EAB but there still may be a few hanging on, in the 5-7" DBH range. Trace of paper birch (pole/sap). Average ba/acre from 10 plots = 113 square feet.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Northern White Cedar		1	Log	13		Red Maple		Low	>20 feet	Sapling	
White Spruce		1	Pole	6		Balsam Fir		Medium	Variable	Sapling	
Balsam Fir		27	Pole/Sapling	5		Sugar Maple		Medium	>20 feet	Sapling	
Sugar Maple		3	Pole/Sapling	5		Ironwood		Medium	Variable	Sapling	
Bigtooth Aspen		8	Pole/Log	8		White Ash		Low	Variable	Sapling	
Quaking Aspen		53	Pole	7	48	Beech		Trace	Variable	Sapling	
Balsam Poplar		1	Pole	8		Paper Birch		Trace	>20 feet	Sapling	
Red Maple		6	Pole	6							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
<b>90</b>	42330 - Upland Fir	Poletimber Medium	1.8	48	1-50	N/A	This stand was clearcut at the same time as adjacent stand 98 to the west but beavers have removed all of the aspen and fir has taken over. There are several non-forested areas mixed in throughout. A small wet drainage passes south/southeast through middle of the stand. Average ba/acre from 3 plots = 50 square feet. No management at this time. This stand serves well as a stream buffer.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Quaking Aspen		5	Pole/Log	8	48	White Ash		
Balsam Poplar		2	Pole/Sapling	6		Beech		
White Ash		1	Pole	6		Black Cherry		
White Spruce		5	Pole/Log	8		Balsam Fir		
Balsam Fir		77	Pole/Sap/Log	6	48	White Ash		
Ironwood		2	Pole	5		Ironwood		
Red Maple		8	Log/Pole	12				
<b>91</b>	4130 - Aspen	Poletimber Well	4.2	46	111-140	N/A	Narrow strip of moderate quality aspen bordering a swamp edge. The north 1/4 of the stand is nearly pure hardwoods (mostly red maple) without much aspen. Trace of pin cherry. Average ba/acre from 6 plots = 113 square feet.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Quaking Aspen		48	Pole/Log	8	46	Paper Birch		
Balsam Fir		9	Pole	6		White Ash		
Sugar Maple		5	Pole/Sapling	5		Red Maple		
Paper Birch		2	Pole/Sapling	6		Sugar Maple		
Red Maple		21	Pole/Sapling	6		Beech		
Bigtooth Aspen		15	Pole/Log	8		Balsam Fir		
						Ironwood		
						Black Cherry		
<b>92</b>	4130 - Aspen	Poletimber Well	1.7	46	111-140	N/A	Moderate quality aspen stand that becomes wet along the south and east edges. Some blowdown along the southern edge. Trace of black cherry and paper birch (pole). Average ba/acre from 4 plots = 113 square feet. Manage with the stand to the north in Compartment 11 (stand 113).	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Quaking Aspen		69	Pole/Log	8	46	Paper Birch		
Bigtooth Aspen		10	Pole/Log	8		Ironwood		
Sugar Maple		1	Pole/Sapling	5		Red Maple		
Balsam Fir		5	Pole/Sapling	6		Balsam Fir		
Red Maple		15	Pole/Sapling	6		Sugar Maple		
<b>93</b>	4119 - Mixed Northern Hardwoods	Sawtimber Well	5.5	103	51-80	N/A	Stand thinned in spring/summer of 2016 as part of Big Swale Hardwoods, #53-0015-15-01, Northwest Hardwoods.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Beech		3	Log/Pole	10		Sugar Maple		
Sugar Maple		49	Log/Pole	10	103	Ironwood		
Red Maple		18	Log/Pole	10				
Basswood		30	Log/Pole	12	103			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>94</b>	4130 - Aspen	Poletimber Well	3.4	41	81-110	N/A	Moderate quality aspen stand with an excellent understory of sugar maple. The aspen is low quality and less well-stocked in the north half of the stand with a fully-stocked sugar maple understory that is recruiting into the overstory. Aspen quality and stocking increase in the south half, and while sugar maple declines somewhat in abundance in the south half it is still common. Trace of fir (pole) and white spruce (pole). Average ba/acre from 5 plots = 92 square feet. The far south/southwest end of the stand lies in somewhat of a depression and may be seasonally wet, difficult to tell with all of the snow on the ground currently.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Black Cherry	2	Pole	6		Balsam Fir	Trace		Variable	Sapling
Sugar Maple	20	Sapling/Pole	4		Red Maple	Low		>20 feet	Sapling
Balsam Poplar	2	Pole	8		Black Cherry	Trace		Variable	Tall Shrub
Ironwood	4	Sapling/Pole	4		Sugar Maple	Full		>20 feet	Sapling
Quaking Aspen	55	Pole/Log	8	41	Ironwood	High		Variable	Sapling
Bigtooth Aspen	10	Log/Pole	10		Beech	Trace		Variable	Sapling
Red Maple	7	Pole/Sapling	6						
<b>95</b>	4134 - Aspen, Spruce/Fir	Sawtimber Well	2.4	78	111-140	N/A		Older aspen stand of varying quality. There are quite a few poor quality trees, with lots of rot, that are starting to senesce. However, in some areas the aspen still appears vigorous and healthy. Some hardwoods are scattered throughout, and tend to occur in small clumps, such as at the southeast corner and along the north edge of the stand. A handful of XL-sized red maple are present at the north end. Trace of basswood (log) and black cherry (pole) in the overstory. A couple areas with a good serviceberry component, some nearly 3-4" DBH. Average ba/acre from 5 plots = 122 square feet.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height		Size
Ironwood	1	Pole	5		Balsam Fir	High	>20 feet		Sapling
Paper Birch	2	Log	12		Hazelnut (American)	Trace	5 - 10 feet		Tall Shrub
Balsam Fir	25	Pole/Log	8		Red Maple	Low	>20 feet		Sapling
Red Maple	7	Log/Pole	12		Ironwood	Low	Variable		Sapling
Quaking Aspen	54	Log/Pole	12	78	White Pine	Trace	Variable		Sapling
Sugar Maple	7	Log/Pole	11		White Spruce	Trace	Variable		Sapling
White Spruce	4	Pole/Log	8		Beech	Trace	Variable		Sapling
					Black Cherry	Trace	>20 feet		Tall Shrub
					Serviceberry (Juneberry)	Trace	>20 feet	Tall Shrub	
<b>96</b>	4130 - Aspen	Poletimber Well	7.5	41	111-140	N/A	Moderate quality aspen stand. A few small areas of decline and poor quality noted, but not a large percentage overall. Well developed maple understory in places, such as the south end, but not uniform throughout. A few scattered larger diameter trees (paper birch, sugar maple, red maple, and white spruce) along the east edge of the stand adjacent to the two small openings. Trace of ironwood (pole), black cherry (pole), white spruce (pole/log), white pine (pole), sugar maple (log), and paper birch (log). Average ba/acre from 10 plots = 113 square feet. All of this stand is dry except for the far northern edge which dips down into lowland.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Balsam Fir	5	Pole	7		White Spruce	Trace		Variable	Sapling
Sugar Maple	2	Pole/Sapling	5		Beech	Trace		Variable	Sapling
Quaking Aspen	82	Pole/Log	8	41	Balsam Fir	Low		Variable	Sapling
Red Maple	11	Pole/Sapling	6		Hazelnut (American)	Low		5 - 10 feet	Tall Shrub
					Red Maple	Medium		>20 feet	Sapling
					Serviceberry (Juneberry)	Trace		Variable	Tall Shrub
					Sugar Maple	Medium		>20 feet	Sapling
					White Pine	Trace		Variable	Sapling
					Black Cherry	Low	Variable	Tall Shrub	
					Ironwood	Low	Variable	Sapling	





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments									
97	310 - Herbaceous Openland	Nonstocked	0.4	0	Unspecified	No	An old opening that was likely a landing at some time. It is still relatively open with not much new in-growth, except for some quaking aspen trying to seed in along the edges. An old road, although very overgrown, passes north and south through the stand. Too much snow on the ground to see what the groundcover is but I'm guessing it's mostly bracken fern. Two Siberian crabapple trees are present in the stand, still relatively young, in the 10-20 foot range.									
								Sub-Canopy Species	Density	Avg. Height	Size					
								Ironwood	Trace	>20 feet	Sapling					
								Quaking Aspen	Low	< 5 feet	Seeding					
								Balsam Fir	Trace	>20 feet	Pole					
								Beech	Trace	Variable	Sapling					
								Black Cherry	Trace	Variable	Tall Shrub					
								Balsam Fir	Trace	Variable	Sapling					
								White Spruce	Trace	Variable	Sapling					
								White Pine	Trace	Variable	Sapling					
Sugar Maple	Trace	>20 feet	Sapling													
98	310 - Herbaceous Openland	Nonstocked	0.3	0	Unspecified	No	An old opening that was likely a landing at some time. It is still relatively open except for some white spruce which is abundant along the edges. An old road, although very overgrown, passes north and south through the stand. Too much snow on the ground to see what the groundcover is but I'm guessing it's mostly bracken fern.									
								Sub-Canopy Species	Density	Avg. Height	Size					
								White Spruce	Low	Variable	Sapling					
								White Spruce	Low	>20 feet	Pole					
99	4319 - Mixed Upland Forest	Poletimber Well	7.7	41	81-110	N/A	This stand was clearcut at the same time as adjacent aspen stands 11 and 94 but beavers have removed nearly all of the aspen over the years. A mix of species has regenerated in the stand, with a very good component of hardwoods. The east half of the stand has relatively steep slopes leading down to the adjacent lowland. Balsam fir is dominant in many areas along the lower parts of this slope, with red and sugar maple being more common on the upper slope. The west half of the stand has more of a gradual slope and composition is heavier to red maple in this part of the stand, with not nearly as much balsam fir. There are a few areas scattered throughout with not much regeneration, however many of these areas have a good component of shrubs, American hazelnut in particular is abundant in the east half. Although relatively rare, there are a few residual sawlog-sized sugar maple throughout the stand. Some areas of wet ground can be found along the west side where the stand transitions to lowland. Trace of elm (pole/sap). Average ba/acre from 11 plots = 82 square feet. With the exception of fir and aspen, most species in the overstory have a lot of stems that are still sub-merchantable. This stand serves well as a buffer to discourage future beaver activity and should not be managed at this time. If it is ever prescribed in the future, management should be geared towards hardwoods using a two-aged or uneven-aged approach.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Red Oak	1	Sapling/Pole	4		White Pine	Low	Variable	Sapling
								Ironwood	4	Sapling/Pole	4		Black Cherry	Medium	Variable	Tall Shrub
								Paper Birch	2	Pole/Sapling	5		Paper Birch	Trace	>20 feet	Sapling
								Red Maple	22	Pole/Sapling	6		Red Maple	Low	>20 feet	Sapling
								White Pine	7	Pole/Sap/Log	6		Tag Alder	Low	10 - 20 feet	Tall Shrub
								Balsam Fir	33	Pole/Log	8	41	Balsam Fir	Medium	Variable	Sapling
								White Spruce	3	Pole/Sap/Log	6		Hazelnut (American)	Medium	5 - 10 feet	Tall Shrub
								Quaking Aspen	6	Pole/Log	9	41	Sugar Maple	Trace	>20 feet	Sapling
								Sugar Maple	22	Sapling/Pole/Log	4		Ironwood	Medium	Variable	Sapling
													Serviceberry (Juneberry)	Trace	Variable	Tall Shrub
													Beech	Low	5 - 10 feet	Sapling
													White Spruce	Trace	Variable	Sapling