



# Compartment Review Presentation

## Grayling Forest Management Unit

Compartment 72274

Entry Year 2026

Acreage: 1,194

County Crawford

Management Area: Camp Grayling

**Stand Examiner:** Jake Halabut

### Legal Description:

T27N R1W Sections 6, 7, & 8  
Southeast Lovells Township, Crawford County

### Identified Planning Goals:

To maintain species and structural diversity while managing for health, productivity, and sustainability throughout the compartment. To provide multiple use opportunities and incorporate any visual management needed to optimize these uses while facilitating military training needs.

### Soil and topography:

The majority of this compartment is comprised of Grayling sands and Graycalm sands, ranging from 0 – 20% slopes. SE corner of Stand 43 has a unique soil type when compared to the surrounding area, as it is Tawas muck, containing unique ground cover species such as the Pitcher plant and other species tolerant of acidic soil conditions. One significantly steep slope exists along high banks road near the corner of sections 5, 6, 7, & 8. The slope of this hill could limit harvesting operations in the immediate area.

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

This compartment consists of solid state ownership except for privately owned parcels in Sections 6 and 8. This compartment contains 70 acres of military board land in Section 6. The remainder of state land in the compartment is under the 20 year management agreement with the Michigan National Guard, Department of Military Affairs. The management agreement allows for military camping and maneuvers, but does not allow the use of heavy equipment or high intensity live ammunition firing. Tracked vehicles are prohibited and all vehicle use is restricted to existing trail roads.

State land located in Sections 7 and 8 are under a long term lease (L-1479) with the Michigan National Guard, DMA to provide for military usage with no permanent buildings or improvements to be erected (Act 154, P.A. 1935). Wooden military observation towers are located within Sections 7 and 8, but appear to not be in use (their condition is rapidly declining). There is also sound monitoring equipment installed in the NE ¼ SE ¼, Section 6.

Informal requests have been made from private landowners in the area for easements across state land to provide legal ingress/egress to the private lands. To date, no such requests have been granted easements.

### Unique Natural Features:

Hill's Thistle (*cirsium hillii*), Kirtland's Warbler (*Dendroica kirtlandii*), Wood turtle (*Glyptemys insculpta*).  
SE corner of stand 43 contains some unique plant species associated with acidic mucky soil conditions, as outlined above.

### Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

### Special Management Designations or Considerations:

A designated Kirtland's Warbler management area lies along the south boundary of the compartment. No special needs exist within the compartment.

### Watershed and Fisheries Considerations:

There is a small portion of an unnamed lake (< 1 acre) in the south east corner of Section 8. The North Branch of the AuSable River is located within ¼ of the compartment. This compartment is in the North Branch Au Sable River watershed, and lies just to the west of that waterbody. Prescribed treatments are appropriate for the protection of that waterbody. Fisheries Division is working with local angler groups on instream habitat improvement projects in the North Branch Au Sable, and habitat work for this reach of the North Branch Au Sable River is tentatively schedule for 2019-2022. We will likely request trees from this compartment at that time.

### Wildlife Habitat Considerations:

This compartment has many cover types, with varying age classes, which provide excellent habitat for many species of wildlife.

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

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Coldwater Shale. The Coldwater does not have a current economic use. A clay pit is located in Section 7, referred to as Bald Hill Clay Pit. There is good potential for gravel mining on the upland areas. In regards to oil and gas development, there are no oil and gas leases in the compartment. The Compartment is located two miles to the northwest of Conners Marsh Field. The field has produced over 20 Bcf gas from the Ordovician Prairie du Chien.

**Vehicle Access:**

The compartment is easily accessed through county roads of Bald Hill Road and High Banks Road. Numerous other trail roads exist in the compartment, many of which are only accessible to a 4WD vehicle. Many of these trails are used for military training purposes. There are several roads used by private landowners to access their property. One trail road is gated where it meets High Banks Road, which is a trespass.

**Survey Needs:**

There are no survey needs for this compartment at this time.

**Recreational Facilities and Opportunities:**

No designated recreational trails or facilities exist within the compartment.

**Fire Protection:**

The compartment falls under the fire protection of the Lovell's Volunteer Fire Department and the Grayling MDNR. If a wildfire was to occur in this compartment, the nearest water source would be a small lake in the NE corner of Section 17, to the south of compartment 240.

**Additional Compartment Information:**

Several harvest were a result of the Red Pine Project, the main goal of the Red Pine Project is to adjust and balancing the red pine cover-type age-class distribution by harvesting red pine timber stands in the 40-79 year age-classes and regenerating areas to red pine.

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

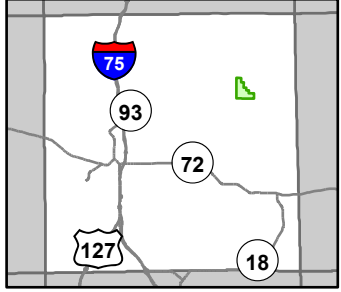
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

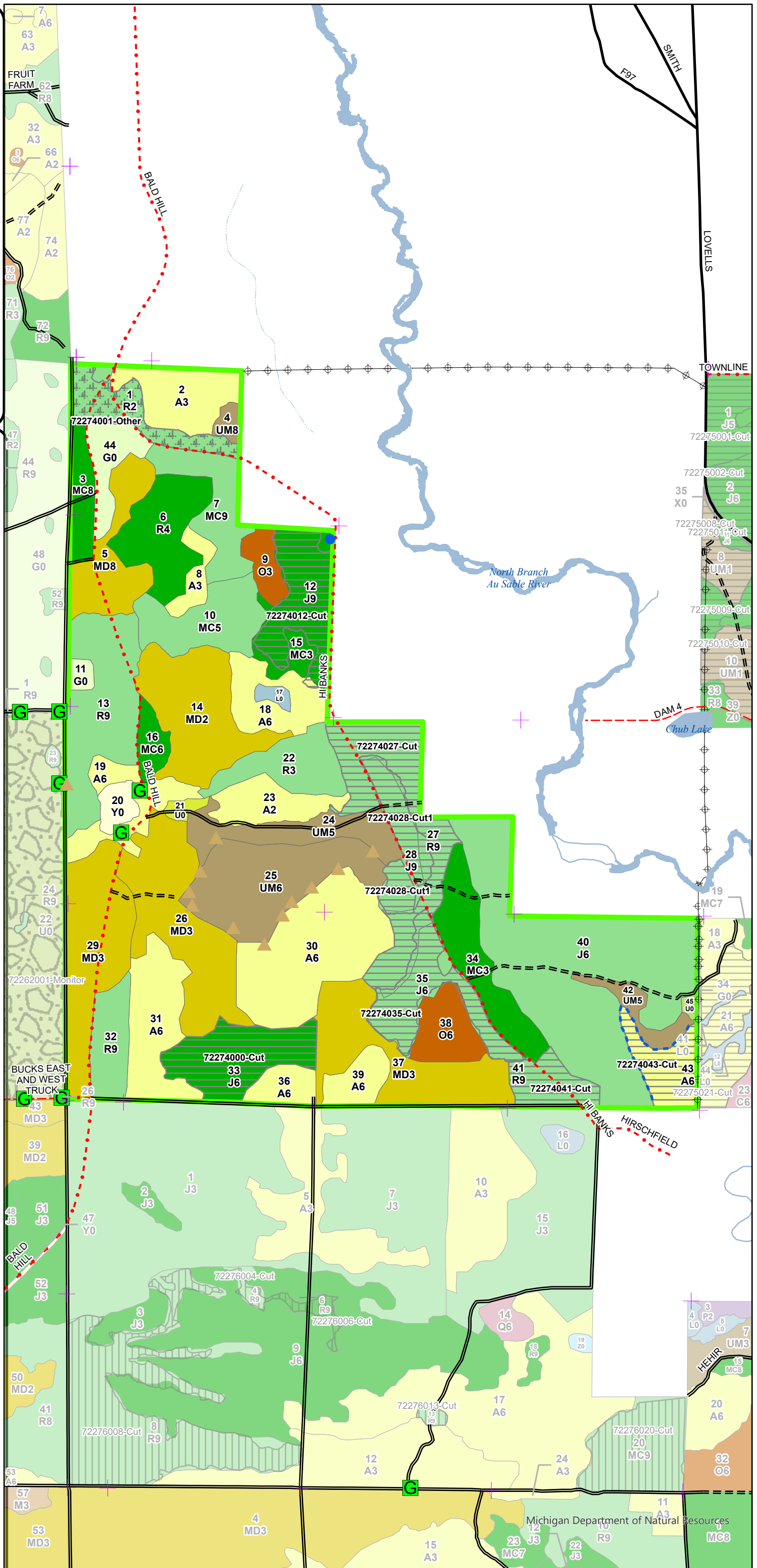
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

Compartment: 72274  
 T27N, R1W, Sec: 6-8  
 County: Crawford  
 Unit: Grayling  
 Mgmt Area: Camp Grayling  
 YOE: 2026  
 Acres: 1193.7 GIS Calculated  
 Examiner: Jake Halabut  
 Map Revised: 07/11/2024  
 Map Phase: Web-Post



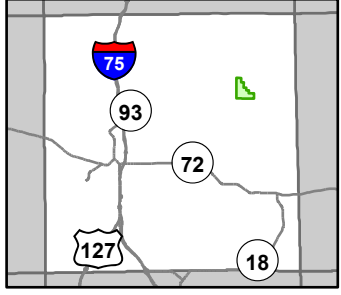
- + Remonumented Section Corners
- Counties
- ▲ Berms
- G Gate
- Tower
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Powerline
- Compartment Boundary
- Treatments with Site Conditions
- Other Treatment - See Comments
- Clearcut (w/Reserves)
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 710 - Sand/Soil



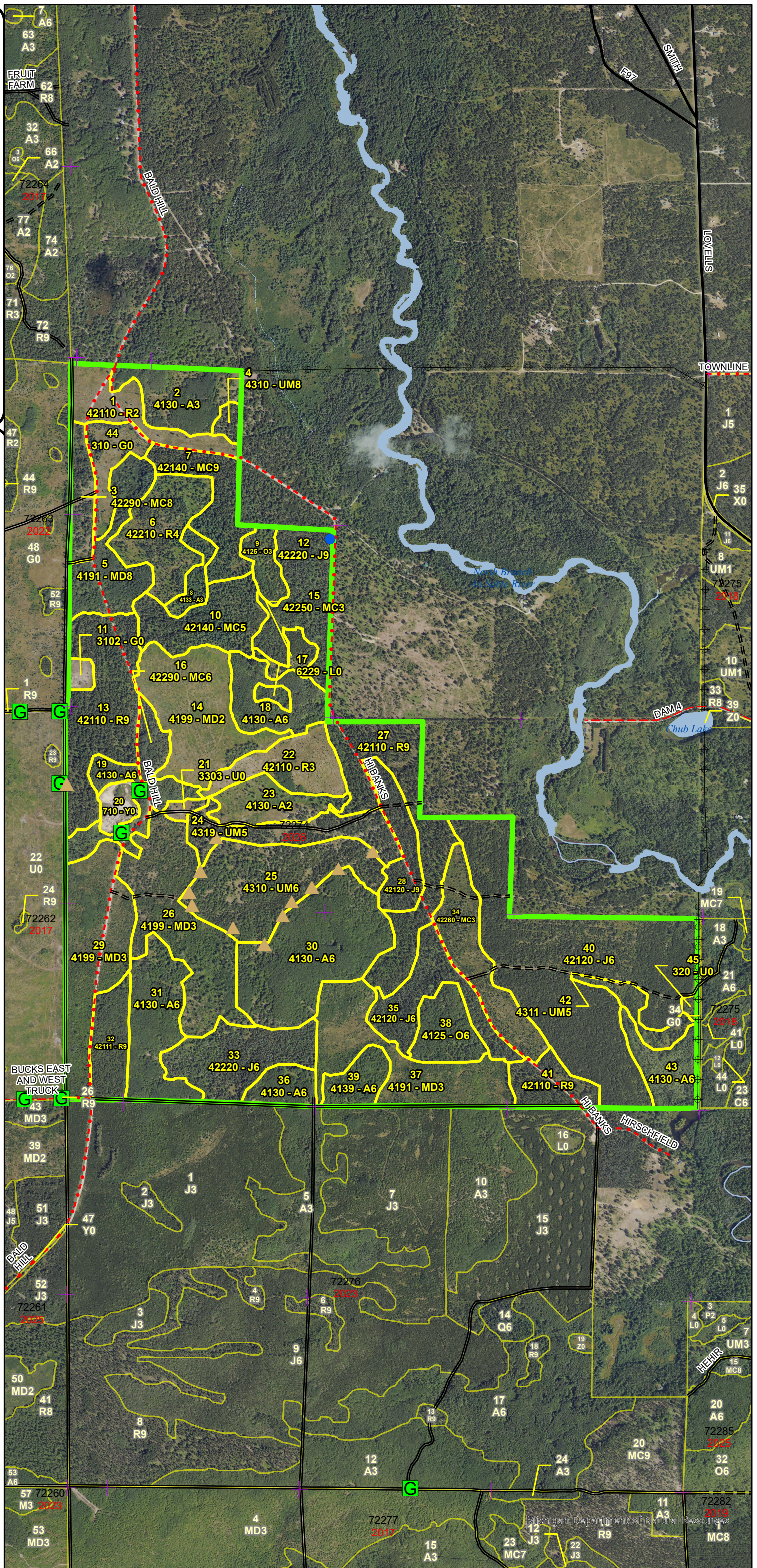


# Stand Boundary Map

Compartment: 72274  
 T27N, R1W, Sec: 6-8  
 County: Crawford  
 Unit: Grayling  
 Mgmt Area: Camp Grayling  
 YOE: 2026  
 Acres: 1193.7 GIS Calculated  
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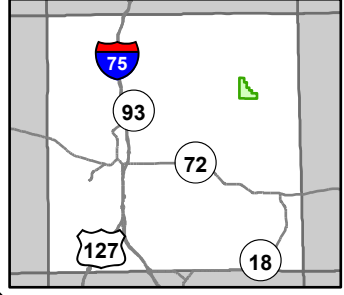
- + Remonumented Section Corners
- Counties
- ▲ Berms
- G Gate
- Tower
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Powerline
- Compartment Boundary
- Stand Boundaries
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 710 - Sand/Soil
- State Forests



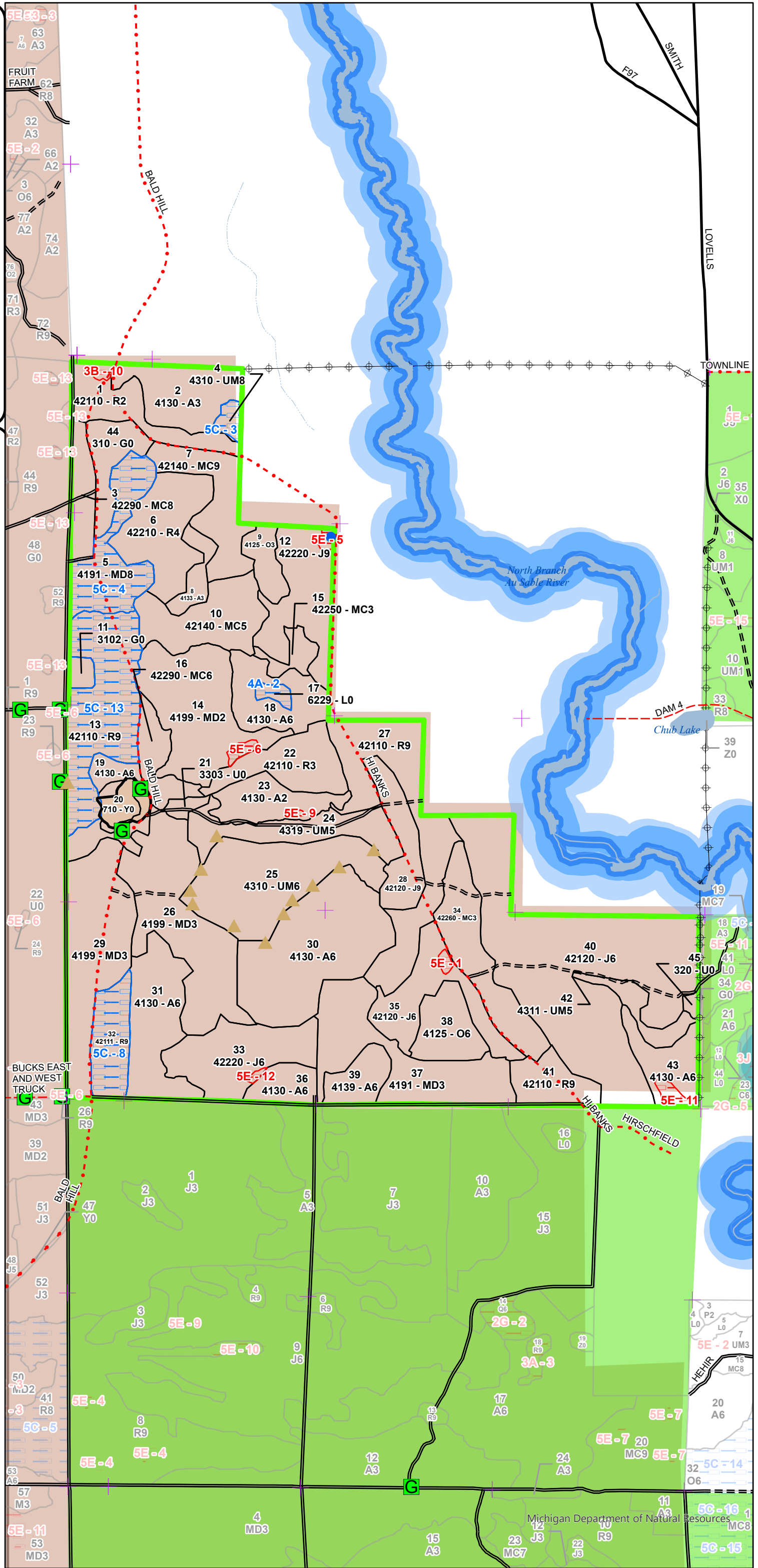


# Special Conservation Areas & Site Conditions Map

Compartment: 72274  
 T27N, R1W, Sec: 6-8  
 County: Crawford  
 Unit: Grayling  
 Mgmt Area: Camp Grayling  
 YOE: 2026  
 Acres: 1193.7 GIS Calculated  
 Examiner: Jake Halabut  
 Map Revised: 07/11/2024  
 Map Phase: Web-Post



- + Remonumented Section Corners
- Counties
- Berms
- Gate
- Tower
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Powerline
- Compartment Boundary
- SCA
- Available w/ Constraints
- Unavailable
- 4A: No Markets Available for these Forest Products
- 5C: Delay treatment for age/size class diversity or exceptional site
- 5E: Long-Term Retention
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Kirtland Warbler Habitat
- Cold Water Streams
- High Priority Trout Stream Buffer
- Research, Development, and Military Lands
- Sand or Gravel Pit



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+	Unseen-Aged	Total
Aspen	0	19	8	26	144	20	18	0	0	0	0	0	0	0	0	0	0	0	235
Herbaceous Openland	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Jack Pine	0	0	0	0	130	0	0	62	52	0	0	0	0	0	0	0	0	0	244
Low-Density Trees	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Shrub	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Mixed Upland Deciduous	0	49	156	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	234
Natural Mixed Pines	0	0	32	6	0	8	0	0	13	0	0	0	0	0	0	0	0	0	59
Oak	0	0	0	10	0	18	0	0	0	0	0	0	0	0	0	0	0	0	28
Planted Mixed Pines	0	0	0	0	0	30	0	0	26	0	0	0	0	0	0	0	0	0	56
Red Pine	0	47	0	0	0	0	0	33	102	34	0	0	0	0	0	0	0	0	214
Sand, Soil	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Upland Mixed Forest	0	0	0	53	10	0	0	26	0	0	0	0	4	0	0	0	0	0	93
Upland Shrub	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<b>Total</b>	<b>32</b>	<b>115</b>	<b>196</b>	<b>95</b>	<b>284</b>	<b>76</b>	<b>18</b>	<b>121</b>	<b>193</b>	<b>34</b>	<b>0</b>	<b>29</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1195</b>



## Report 2 – Treatment Summary

Grayling Mgt. Unit

Compartment 274

Year of Entry: 2026

Acres of Harvest

Total Compartment Acres: 1,194

Commercial Harvest - 175  
 Harvests with Site Condition - 18  
 Next Step Harvest - 0  
 Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Oversyory Removal	Salvage	Other	Total Acres
Aspen	18	0	0	0	0	0	0	0	0	18
Jack Pine	114	0	0	0	0	0	0	0	0	114
Red Pine	61	0	0	0	0	0	0	0	0	61
<b>Total</b>	<b>193</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>193</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	193	0	0	0	0	0	21	0	0	214
Next Step	0	220	210	0	0	35	432	0	125	1022
<b>Total</b>	<b>193</b>	<b>220</b>	<b>210</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>432</b>	<b>21</b>	<b>125</b>	<b>1237</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>33</b>	<b>72274000-Cut</b>	34.7	42220 - Natural Jack Pine	Poletimber Well	61	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Clearcut with retention. Utilize area retention along the slope that borders S36; approximate area of retention can be found in MiFi that encapsulates pocket of red pine.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> NonForestMgt, Brush Cutting; SitePrep, Trenching; Planting, Initial Plant; Planting, Replant; Pesticide, Aerial - Site Prep; Monitoring, Treatments: Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)</p> <p><u>Acceptable</u> Fully stocked planted red pine.</p> <p><u>Regen:</u></p> <p><u>Other</u> Add military specs</p> <p><u>Comment:</u> Add chipping specs Add low stump specs</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>											
<b>1</b>	<b>72274001-Other</b>	21.2	42110 - Planted Red Pine	Sapling Medium	4	Immature	Other	Other	42110 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Supplemental Brush cutting treatment to reduce encroachment of woody vegetation on planted red pine.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u> Previous efforts to spray to encourage FTG red pine were cut short due to MFNI hits in the area. Recommending supplemental brush cutting</p> <p><u>Comment:</u> to encourage % of FTG planted Red Pine.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>											
<b>27</b>	<b>72274027-Cut</b>	45.2	42110 - Planted Red Pine	Sawtimber Well	77	51-80	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Final Harvest: clearcut without retention due to the size and windy shape of the stand.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Other - Specify; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Treatments: Regen(3yr); NonForestMgt, Brush Cutting; NonForestMgt, Brush Cutting</p> <p><u>Acceptable</u> Fully stocked red pine</p> <p><u>Regen:</u></p> <p><u>Other</u> Bump up the YOE date to either current YOE or 2025 YOE to coincide harvest with adjacent sale from 2023 YOE.</p> <p><u>Comment:</u> Specs should include, low stumps, military restriction, chipping and harvest does not have to follow the woody biomass guidelines.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>											





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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
<b>41 72274041-Cut</b>	15.7	42110 - Planted Red Pine	Sawtimber Well	82	51-80	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Final harvest without retention due to small size of stand, follow standard retention guidelines. Remove all species greater than 2" DBH.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Herbicide Use; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Well stocked red pine</p> <p><u>Other Comment:</u> There is good amount of oak regeneration. Add military spec, low stump spec, chipping spec, and do not follow standard woody biomass guidelines.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										
<b>43 72274043-Cut</b>	18.0	4130 - Aspen	Poletimber Well	50	51-80	Harvest	Clearcut with Retention	4136 - Aspen, Mixed Conifer	Even-Aged	No
<p><u>Prescription</u> Clearcut with retention. Focus on using area retention to the south and where any wet areas exist; including a small tag alder site along the powerline. There was also a rare plant species hit near or in this stand per compartment notes.</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> Moderate stocking of any mix of aspen, mixed pine, and any other secondary mixed deciduous will be acceptable.</p> <p><u>Other Comment:</u> There was Barberry spp found in the understory during inventory, would be concerned about it spreading to adjacent stands during harvest. Consider decontamination specs. Add military specs Add grouse drumming log spec</p> <p><u>Site Condition</u> Long-Term Retention</p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										

**Approved Treatments:**

<b>12 72274012-Cut</b>	31.5	42220 - Natural Jack Pine	Sawtimber Well	73		Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Clearcut with retention, follow standard retention guidelines focusing retention along High Banks Rd. Spec for low stump heights as well as use the military spec. Do not follow Woody Biomass Guidelines. Old road in stand should be trenched and planted.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(3yr); Monitoring, Artificial Regen(1yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Plant red pine following harvest.</p> <p><u>Other Comment:</u> A fair amount of coarse woody debris is on the ground and very little understory. Stand is half PARVHa/PARVVb and half PVCd. Depending on how stand responds following harvest, if pocket of oak regeneration then avoid these areas when planting. Old next step comments: Site prep as needed trench and replant to red pine. Old road in stand should be trenched and planted.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
<b>28 72274028-Cut1</b>	20.4	42120 - Planted Jack Pine	Sawtimber Well	71		Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Final harvest with out retention do to the small size of the stand. Harvest all species greater than 2" DBH. Specs should include, low stumps, military restriction, chipping and harvest does not have to follow the woody biomass guidelines.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Herbicide Use; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Well stocked red pine.</p> <p><u>Regen:</u></p> <p><u>Other</u> Northern third of stand is PVCd and the remainder is PARVHa/PArVVb. Old next step comments: Site prep as needed including herbicide, trench and replant to red pine. Avoid planting area of heavy oak regeneration.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										
<b>35 72274035-Cut</b>	27.7	42120 - Planted Jack Pine	Poletimber Well	67		Harvest	Clearcut with Retention	4212 - Planted Jack Pine	Even-Aged	No
<p><u>Prescription</u> Final harvest with retention, follow standard retention guidelines. Remove all species greater than 2" DBH. Focus retention along High Banks Rd. Specs should include, low stump, military restriction, chipping and do not follow standard woody biomass guideline.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Herbicide Use; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Well Stocked jack pine.</p> <p><u>Regen:</u></p> <p><u>Other</u> Nice oak regeneration thru out the stand. Stand is a mixture of PVCd, PArVVb and PARVHa/PArVVb. Old next step comments: Site prep as needed and trench and plant to jack pine. If pocket of dense oak regen occur avoid planting in those areas.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>										

**Total Treatment** 214.4  
**Acres Proposed:**



## Report 4 – Site Conditions

Grayling Mgt. Unit  
Jake Halabut : Examiner

Compartment: 274  
Year of Entry: 2026

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions			
		With Condition	Not Available		4A	5C	3B	5E
235	232	0	3	Aspen		0		3
18	18	0	0	Herbaceous Openland				
244	241	0	3	Jack Pine				3
3	3	0	0	Low-Density Trees				
3	0	3	0	Lowland Shrub	3			
234	203	29	2	Mixed Upland Deciduous		29		2
59	59	0	0	Natural Mixed Pines		0		
27	27	0	0	Oak				
56	56	0	0	Planted Mixed Pines				
215	144	69	1	Red Pine		69	1	
7	7	0	0	Sand, Soil				
92	88	4	0	Upland Mixed Forest		4		
1	1	0	0	Upland Shrub				
1,194	1,081	104	9	Total Forested Acres	3	101	1	7
	91%	9%	1%	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	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
2	Available	4A: No Markets Available for these Forest Products	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
Small isolated pocket of Tag Alder in the middle of the aspen clone, want to protect stand when aspen is treated in the future.							

## Report 4 – Site Conditions

Grayling Mgt. Unit  
Jake Halabut : Examiner

Compartment: 274  
Year of Entry: 2026

3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Small stand of poorly formed oak and red pine. Provides some age and structure diversity to the area.							
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	29	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> This stand provides good structure diversity at this time. Stand is still growing well and treatment can be held off till the next year of entry.							
5	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
6	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	18	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Harvest with S13 and replant next inventory cycle.							
9	Unavailable	5E: Long-Term Retention	0	(Inactive)3I: Historical / archeological (add locked comments)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							



## Report 4 – Site Conditions

Grayling Mgt. Unit  
Jake Halabut : Examiner

Compartment: 274  
Year of Entry: 2026

10	<b>Unavailable</b>	<b>3B: Threatened, endangered, and special concern species</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
11	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
12	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
13	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	51	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Harvest with adjacent stands next inventory cycle							

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

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

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

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

Conservation Area	Type	Description
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>1</b>	42110 - Planted Red Pine	Sapling Medium	22.5	4	Immature	N/A	Retaining Joan's notes below from 2021 survey. Looks like the pine is doing fairly well, though the snow cover may impact some of the stems (some are bent over). Oak is also an additional competition worth noting, as it seems to be filling in a decent amount on the site.  Old comments: (Was cut in 2010 (#607-06), roller-chopped in 2016 (C72-648) & most of it was trenched & planted to RP in May 2018, excluding an acre along the north line by Bald Hill Rd. Yr 1 regen survey in Oct 2018 found 43.6% mortality, 59.5% FTG, 513 TPA. Re-planted w/ top-pruned 4-0 bareroot RP in April 2019. Yr 1 survey after replant found 20% mortality, 59% FTG, 784 TPA. Yr 2 contract survey Sept 2020 found 33% mortality, 49% FTG, 559 TPA. Re-planted with 253 TPA PRT RP in April 2021, bringing total TPA up to 967. Left the planted RP age set to the 2nd replant stock, but there are also 4- and 1-year old classes. Competition was cut under contract April 2021 to ensure >80% FTG RP. Oct 2021 Yr 1 survey: 851 TPA, 79% FTG, 4% mortality. BC is primary competitor.  Rare plants found during cultivation site survey precluded further site prep and exclusion of an acre in the north along Bald Hill Rd. Entered the wrong date in the Implementation Notes when closing the Re-plant Rx: should've been April 28, 2021.)
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Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	85	Sapling	1	4
Black Cherry	5	Sapling	1	
Northern Pin Oak	10	Sapling	1	

<b>2</b>	4130 - Aspen	Sapling Well	26.4	26	Immature	N/A	Stand is comprised of dense pockets of Aspen with areas of low stocked black cherry. Shrub and mixed pine. Aspen is looking pretty good. Not quite merchantable yet, but is approaching the pole size class and will likely reach it next inventory cycle. Stand is at the low end of the canopy closure, the open areas are being occupied by cherry brush. Stand is PARVHa/PARVVb. Site index is 50.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black/Red (Hybrid) Oak	10	Sapling/Pole	4		White Pine	Low	Variable	Sapling
Pin Cherry	15	Sapling/Pole	4		Jack Pine	Low	Variable	Sapling
Jack Pine	5	Pole/Sapling	5		Black Cherry	Low	Variable	Sapling
Quaking Aspen	70	Sapling/Pole	4	26				

<b>3</b>	42290 - Natural Mixed Pine	Sawtimber Medium	13.2	77	51-80	N/A	Small stand of mixed red and jack pine, with jack pine the more dominate pine type throughout the stand and exists in varying product classes. The red pine is primarily saw log with smaller Diameter jack pine mixed between. Stand is of lower value due to the acreage and the lack of merchantability among some stems found. overall BA is closer to the lower end of that range. The southern half is pretty dense with pole sized red and jack pine. sawlog sized tree's are mostly found in the northern half. looks like there were some residual oak trees left from the parent stand of previous harvest.  old comments: Mixed stand of red and jack pine. Red pine of good quality. Smaller diameter jack pine is mixed throughout the stand. North half heavier to Red pine. Three BA swings were taken jack pine averaged 16 and red pine 40. Kotar is PARVHa/PARVVb. Site index is 45.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	44	Log/Pole/Sap	12		Jack Pine	Medium	< 5 feet	Sapling
Black/Red (Hybrid) Oak	6	Log	12		Black Cherry	Low	Variable	Sapling
Jack Pine	50	Pole/Log/Sap	8	77	Oak (spp.)	Low	< 5 feet	Sapling
					Red Pine	Medium	Variable	Sapling





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																									
4	4310 - Pine, Oak Mix	Sawtimber Medium	3.7	113	51-80	N/A	Mixed stand of log sized Red pine and oak, not much for form or quality but a good stand for diversity. Looks like it may have been left as retention at some point, as it's a small acreage stand surrounded by young, immature stands. Basal area is relatively low despite the size class of the stems. 4 plots were recorded for an average of 50 sq ft per acre.																																																									
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5	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	28.7	105	1-50	N/A	Aspen regen is beginning to occupy the canopy in some areas, but is still primarily in the understory. Making good progress though as some stems are just reaching merchantability, mostly in areas where the aspen is free to grow. Oak is still holding on well despite the age.																																																									
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6	42210 - Natural Red Pine	Poletimber Poor	32.5	67	1-50	N/A	Stand is progressing well, continue to monitor.																																																									
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7	42140 - Planted Mixed Pine	Sawtimber Well	26.0	77	51-80	N/A	The stand is a mixture of red and white pine with looks to be more of an even distribution of white and red pine as you head down the south leg of this stand. Good mix of Pole and saw timber as a whole, with some large diameter pine being present (>18"). In the understory there's a lot of presence of white pine and Oak however the oak is predominately below knee height due to apparent heavy deer browse/activity. Looks like this stand was treated with a thinning in the late 80s (Fence Trespass Block) before species removal was conducted in 2008 (274 Pine: Red and white pine retained ~30 BA). Current average basal area is 70 sq ft based off 17 plots.																																																									
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Canopy Species	% Cover	Size Class	DBH	Age																																																												
White Pine	46	Log/Pole/XLog	13																																																													
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
8	4133 - Aspen, Mixed Pine	Sapling Well	7.8	14	1-50	N/A	Young stand regenerating to aspen with white pine and red maple. Stand was harvested in 2009 under 72-607-06-01 (274 Pine). This stand includes old OI stands 112 and 108, stand 112 passes it regen survey while stand 108 didnt not pass with MO of white pine, white pine will be a componet but not the dominate species. North half of stand is PARVHA, south half is PVCd. Site index is roughly 50. Recommend accepting conversion of stand 108 to aspen.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Pine		20	Pole/Sapling	5		White Pine		Medium	Variable	Sapling	
Red Maple		30	Sapling	2		Red Maple		Medium	10 - 20 feet	Sapling	
Quaking Aspen		50	Sapling	2	14	Black Cherry		Low	Variable	Sapling	
9	4125 - Black, N. Pin Oak	Sapling Well	9.5	26	Immature	N/A	Stand is looking pretty good progressing nicely and is just reaching merchantability in some species, however, the overall size is still sapling. Not much for other regen in the understory, but also there's too much snow to see if there is anything below knee height.  Old notes: There is an aspen pocket in the NW corner of this stand to small to be delineated remainder of stand is oak sprouts with some jack pine. Stand was harvested in 1997. Stand is 1/3 PARVHa/PArVVb (north) and 2/3 PVCd. Site index is 50.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Bigtooth Aspen		15	Pole/Sapling	5		Black Cherry		Medium	Variable	Sapling	
Jack Pine		5	Sapling/Pole	4		Jack Pine		Low	< 5 feet	Sapling	
Black/Red (Hybrid) Oak		70	Sapling/Pole	4	26						
Red Maple		10	Sapling/Pole	4							
10	42140 - Planted Mixed Pine	Poletimber Medium	29.6	43	1-50	N/A	Stand is exhibiting quite a bit of natural oak regen among the planted pine, along with some maple and aspen that are primarily found in larger openings. Otherwise the stand itself is looking good and progressing well. Overall, the stand is still primarily a pole sized, and this class is progressing nicely  Old notes: This stand and stand 7 were treated at the same time, however, stand 7 has a greater density of pine then this stand so they were split. The residual red and white pine were not the dominate cover type, the pole sized red and white pine were. There was too much snow to see any planted regeneration. Stand is primarily PVCd, with a couple veins of PARVHa. There is a nice diversity of understory species in low densities. Stand was harvested in 2009 under 72-607-06-01 (274 Pine). Harvest removed all Jack pine and oak and left all red pine and white pine of approximately 30 BA as per old OI comments. Regen survey was conducted on the old OI stand 12, Stand 12 had a white pine MO, the regen survey when including the advanced regen passes for the MO of white pine.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Pine		10	Log/XLog	14		Red Pine		Low	< 5 feet	Sapling	
White Pine		50	Pole/Sapling	7	43	Jack Pine		Medium	Variable	Sapling	
Red Pine		30	Pole/Sapling	7	43	Oak (spp.)		High	Variable	Sapling	
Red Pine		10	Log/XLog	14	83	White Pine		Medium	Variable	Sapling	
						Aspen (spp.)		Low	Variable	Sapling	
						Red Maple		Low	< 5 feet	Sapling	
11	3102 - Grass	Nonstocked	3.3			No	Old well pad site. Percent covers for species on site estimated due to snow cover.				
Sub-Canopy Species		Density	Avg. Height	Size							
Mixed Grasses		Full	Unspecified	Non-Wood							
Spotted Knapweed		Low	Unspecified	Non-Wood							
12	42220 - Natural Jack Pine	Sawtimber Well	33.5	73		N/A	Stand currently has a sale set up on it: 72-621-23 Butterfly Lane Jack not yet sold.  Dense stand of log/pole sized stems, stems are just entering the log size category. A fair amount of coarse woody debris is on the ground and very little understory. Stand is half PARVHa/PArVVb and half PVCd. Site index 55.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Black/Red (Hybrid) Oak		5	Log/Pole	10		Jack Pine		Medium	< 5 feet	Sapling	
Jack Pine		90	Log/Pole	10	73	Oak (spp.)		Low	< 5 feet	Sapling	
Red Pine		5	Log/Pole	10							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
13	42110 - Planted Red Pine	Sawtimber Well	50.8	79	51-80	N/A	Thinned stand of Red Pine, understory comprised of oak stump sprouts with minimal recruitment to the actual mid-story. Most of the regeneration is being suppressed. Nine plots were taken for an average basal area of 68 sq ft per acre. Basal area is highly variable within the stand, with some areas having in excess of 100 sq ft, while others are 30 sq ft.  Old Comments: This stand is a mixture of PARVHa, PARVHa/PArVVb, PVCd and PArVVb. Stand was treated in winter of 09/10 under 72-605-06-01 (Bald Hill High Banks RP), all Jack Pine and Oak were removed and Red Pine was marked down to 80 BA.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Pine		100	Log/Pole	14	79	Oak (spp.)		High	< 5 feet	Sapling
						Red Pine	Low	Variable	Sapling	
14	4199 - Other Mixed Upland Deciduous	Sapling Medium	49.3	5	Immature	N/A	Stand harvested under contract 72-624-16, in fall/winter of 2018. Stand is doing quite well despite the lack of overall stems per acre over the 6' threshold. Due to the sheer numbers of total stems per acre, both above and below 6', I believe this stand is on the right trajectory to be successful and not warrant supplemental planting.  Old comments: Mixed stand dominated by oak with components of conifer and a few pockets of aspen. Five BA swings were taken with a stand average of 75, individual species were mixed oak 40, Aspen 10, R Maple 5, J Pine 15, R pine 10. Site index was 45. Kotar for this site is PVCd.			
Canopy Species		% Cover	Size Class	DBH	Age					
Jack Pine		2	Sapling	1	5					
Bigtooth Aspen		30	Sapling	1	5					
White Oak		5	Sapling	1	5					
Red Pine		10	Sapling	1	5					
Northern Pin Oak		50	Sapling	1	5					
White Pine		3	Sapling	1						
15	42250 - Pine, Oak	Sapling Well	6.3	27	Immature	N/A	Stand is progressing well and And achieving good vertical gron the canopy stamps and overall. The stand is almost reaching merchandability. Some stems are while art portion still are not. There is there is sparse oak Regen in the understory. Otherwise hold stay in and reassess in ten years. Young regenerating stand of a mixture of jack pine and oak. Northern portion is predominately jack pine while the southern half is oak and jack pine. Lower end of the canopy closure. Stand is pretty much PVCd. Stand was final harvested 1996.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Northern Pin Oak		35	Sapling/Pole	4		Black Cherry		Low	Variable	Sapling
Jack Pine		55	Sapling/Pole	4	27	Jack Pine		Low	Variable	Sapling
Red Pine		5	Pole/Log/Sap	8		White Pine		Low	Variable	Sapling
White Oak		5	Sapling	3						
16	42290 - Natural Mixed Pine	Poletimber Well	8.2	47	81-110	N/A	Mixed stand of conifer with aspen and oak. Jack pine is scattered throughout the stand but has a concentrated patches in the northern and western edges; furthermore, mortality of the jack pine, and aspen, is becoming evident. Quite a bit of red pine pole sized and borderline saw timber found throughout the stand, while there are also some borderline XL sized pine. Seven plots were recorded for an average basal area of 71 sq ft per acre.  Old Comment: Site index is 45 and stand is PVCd.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Pine		35	Log/Pole	12		Red Pine		Low	Variable	Sapling
Jack Pine		36	Pole	7	47	Oak (spp.)		Low	Variable	Sapling
White Pine		2	Pole/Sap/Log	6		Jack Pine		Low	Variable	Sapling
White Oak		2	Pole/Log	9						
Black/Red (Hybrid) Oak		10	Log/Pole	12						
Quaking Aspen		15	Log	11	59					
17	6229 - Mixed lowland shrub	Nonstocked	2.6		Immature	No	No management at this time. Wanted to delineate stand to keep equipment out of when treated next.			
Sub-Canopy Species		Density	Avg. Height	Size						
Tag Alder		Full		Tall Shrub						
Aspen (spp.)		Low	Variable	Sapling						
White Pine		Low	Variable	Sapling						
Jack Pine		Low	Variable	Sapling						





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																		
18	4130 - Aspen	Poletimber Well	22.4	36	1-50	N/A	Stand is progressing well, but not much growing in the understory. This is likely due to the high deer activity and subsequent browsing. Reassess stand in 10 years but likely may not yet be ready.  Young aspen stand with some oak, red maple and red pine scattered throughout. Snow depth to great to record ground species. Stand is PARVHa. Site index is 50. Stand was final harvested in 1987 under 72-05-87-01.																																		
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19	4130 - Aspen	Poletimber Well	20.0	46	51-80	N/A	Stand is looking pretty good overall, and small percentage of stems are just transitioning over into sawlog size. Likely could be harvested at this time if wanted to harvest with adjacent stand that makes sense planning wise. Six plots were recorded for an average basal area of 65 sq ft per acre.  Old Comments: Portion of stand along north edge of stand was harvested in late fall early winter of 2013 for gravel pit extension. Stand is PARVVb and site index was 65.																																		
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20	710 - Sand, Soil	Nonstocked	7.0			No	Crawford County Gravel Pit, surrounding trees were harvested in the winter of 2013 for pit expansion.																																		
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21	3303 - Mixed Low Density Trees	Nonstocked	2.8		Immature	No	Small opening with scattered jack pine and aspen. Stand is PARVHa/PARVVb.																																		
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22	42110 - Planted Red Pine	Sapling Well	23.5	6	Immature	N/A	Stand is looking really good, with an easily estimation of >80% FTG rate of the red pine planted, as the initial below quantitative data in the comments below indicates from 2021. There is some encroachment and overtopping of pine from oak competition, but overall the pine seems to be doing very well.  Old comments: Stand clearcut in 2009 (#607-06). 2010 FTP C72-649 was expanded at reinventory to include an adjacent harvest area. Was chopped in 2016 (C72-649, 24 acres), herbicide applied by skidder in August 2017, 18 acres were trenched in October 2017, and RP was planted in May 2018. Year 1 regen survey in October 2018 found 43.3% mortality, 94% FTG, 498 RP TPA. Re-planted w/ top-pruned 4-0 bareroot RP in April 2019. Yr 1 replant regen survey showed 18% mortality, 95% FTG, 769 TPA. Sept 2020 contract Yr 2 regen survey found 27% mortality, 73% FTG, 642 TPA. Re-planted with 267 TPA PRT RP in April 2021, bringing total TPA up to 922. Left the planted RP age set to the first replant, but there are also 4- and 1-year old classes. Oct 2021 Yr 1 survey: 858 TPA, 89% FTG, 7.8% mortality. Oak is primary competitor, BC secondary.																																		
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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>23</b>	4130 - Aspen	Sapling Medium	18.6	5	Immature	N/A	Stand is regenerating well enough. There are some areas that are denser with aspen regen, while others are lagging behind. These more sparse areas have aspen in them but have not yet reached the required height to clear browse. Black cherry and jack pine are taking advantage in these more sparse areas. Oak regen is lacking as of now but there is some stump sprouting present. 12 plots yielded an estimated 563 stems/acre of desirable regen.  Old Comments: Stand harvested under contract 72-624-16, in fall/winter of 2018. Mature aspen stand with fairly good quality of log size. Stand is PArVHA/PArVVb.
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Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	60	Sapling	1	5
Jack Pine	5	Sapling	1	5
Red Pine	3	Pole/Log	8	
Northern Pin Oak	12	Log/Pole	10	
Black Cherry	20	Sapling	1	5

<b>24</b>	4319 - Mixed Upland Forest	Poletimber Medium	25.9	67	1-50	N/A	Stand still had a ton of variability in terms of diameters, as a percentage of jack pine stems are still lacking merchantability (~15%). however, not sure how much quality or merchantability will improve be waiting another 10 years. Majority of the oak is found along the west end. There are at least 2-3 dozen old training fox holes found throughout this stand, as seen in person and confirmed with LIDAR. Some have old residual barbed wire surrounding them.  Old Comments: Mixed jack pine stand with sapling, pole and log sized trees. Stand is not densely packed several small open area exist which has lead to poor form from being open grown. Stand is PArVHa/PArVVb and site index of 48.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern Pin Oak	10	Pole/Sap/Log	7		Black Cherry	Medium	Variable	Sapling
Jack Pine	45	Log/Pole	10	67	Oak (spp.)	Low	Variable	Sapling
Jack Pine	45	Pole/Sapling	6	42	Jack Pine	Medium	Variable	Sapling

<b>25</b>	4310 - Pine, Oak Mix	Poletimber Well	52.8	26	1-50	N/A	Stump sprouted oak saplings have recruited to the canopy as intermediate and Co-dominates. It appears as though some oak was retained during the harvest as there still appears to be a clear difference in cohorts. Stand is progressing fine at this time.  Old Notes: Mixed stand of oak, red and jack pine in the sapling to pole size class, lower end of the canopy closure. Stand is PArVHa/PArVVb. Old military range impact area- not in use any more, stand has birm all the way around it, found one wood tower. Stand was harvested in 1996.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	10	Pole/Log	8		Oak (spp.)	Low	< 5 feet	Sapling
Jack Pine	40	Pole/Sapling	5		Cherry (spp.)	Low	< 5 feet	Sapling
Black/Red (Hybrid) Oak	50	Pole/Sap/Log	6	26	Jack Pine	Low	< 5 feet	Sapling

<b>26</b>	4199 - Other Mixed Upland Deciduous	Sapling Well	57.5	14	Immature	N/A	Stand is progressing nicely and the majority of regen is up above browse height and would be considered free to grow at this point. Fair amount of jack pine is dispersed throughout as a nice conifer component.  old comments: Stand was harvested in 2008/09 under 72-609-06-01. Roughly 10-20 BA of oak was left from this harvest, if natural regen fails then plant to pine as per old OI. Stand is PArVHa/PArVVb. Regen surveys were conducted in this stand for Old OI 21, 26 and 28 with MO of jack pine, oak, jack pine respectively, stands 21 and 28 failed MO regen but passes with other species and stand 26 passed, Accepting mixed regeneration for this stand for future management.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Pin Cherry	10	Sapling	2		Red Maple	Medium	< 5 feet	Sapling
Red Maple	10	Sapling	2		Red Pine	Low	< 5 feet	Sapling
Quaking Aspen	38	Sapling	2	14	Jack Pine	Low	< 5 feet	Sapling
Northern Pin Oak	30	Sapling	2		Oak (spp.)	Medium	< 5 feet	Sapling
Jack Pine	10	Pole	7					
Black/Red (Hybrid) Oak	2	Log	12	101				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																				
27	42110 - Planted Red Pine	Sawtimber Well	51.3	77	51-80	N/A	Stand was thinned in the winter of 2009/10 under 72-605-06-01 (Bald Hill High Banks RP). All Jack Pine were removed and Red Pine was thinned down to either 80 or 100 BA. No understory to speak of and what is present mostly oak stump sprouts. NE corner of stand BA is roughly 30-50, rest of stand ranged between 80 and 110. Stand looks good stems are healthy and of good quality. Stand is a mixture of PVCd and PArVHa/PArVVb. Site index is 65.																																																				
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28	42120 - Planted Jack Pine	Sawtimber Well	18.6	71		N/A	Stand has a sale currently on it: 72-261-23 Butterfly Lane JackMixed stand with Jack pine, oak and red pine, Stand has enough log material to classify overall size as log. Stand is along High Banks Rd. Northern third of stand is PVCd and remainder is PArVHa/PArVVb. Site index is 50.																																																				
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29	4199 - Other Mixed Upland Deciduous	Sapling Well	50.3	14	Immature	N/A	Stand is progressing well, continue to check on it and see how it is progressing in 10 years.  Stand was harvested in 2008/09 under 72-609-06-01. Replanted in 2010, snow depth to great to visually see any planted stems. Stand has regenerated to a mixed upland deciduous stand with some scattered mature red maple and pine trees. Stand is mixture of PArVVb and PArVHa/PArVVb.																																																				
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30	4130 - Aspen	Poletimber Well	64.5	36	1-50	N/A	Majority of this stand sits up on a ridge/bench. Stand is progressing nicely. Aspen is definitely ahead of the other species in regards to merchantability; however, a fair amount of the oak and maple are graduating in the pole timber class. Not much else is growing in the understory at this time outside of some black cherry. Any oak regen present is browsed heavily.																																																				
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31	4130 - Aspen	Poletimber Well	34.5	37		N/A	Overall, the stand is slightly small from a diameter standpoint. There are areas of the stand that have just reached merchant ability where there are a few saw log sized Aspen. The understory is pretty dominated by either red maple or witch hazel, but there is an oak presence in the understory along the eastern edge bordering stand 33. The stand could benefit from another ten years.																																																				
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																		
32	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	18.2	84	81-110	N/A	The stand is mostly comprised of saw log trees with some pole timber mixed in. There is a vein of hardwoods that runs sort of through the center more towards the northern half of the stand or it's more Aspen and oak dominated. Varying levels of either red Maple or pine regen in the understory. The red maple is more prominent along the eastern edge with the aspen stand and to the north. 9 Plots were recorded for an average of 94 sq ft/acre of basal area.																																																		
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33	42220 - Natural Jack Pine	Poletimber Well	34.7	61	51-80	N/A	Stand has jack pine that is exhibiting a decent amount of mortality. The stand sort of falls in a low area, surrounded by ridges. The western edge has a higher density of oak. The ridge bordering S36 has a pocket of predominately red pine in it.																																																		
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34	42260 - Natural Pine, Mixed Deciduous	Sapling Well	31.6	11	Immature	N/A	Stand is filling in nicely, though sort of difficult to tell in some area what was planted and what was left as retention. There are some obvious red pine that are being over grown that were likely planted, but majority of the jack pine and oak are ~10' tall and doing well.																																																		
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35	42120 - Planted Jack Pine	Poletimber Well	27.7	67		N/A	Stand currently has a sale on it: 72-261-23 Butterfly Lane Jack.																																																		
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36	4130 - Aspen	Poletimber Well	10.6	36		N/A	Stand is looking good, reassess in another 10 year during next inventory cycle but likely not ready till the one after.																																																		
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**37** 4191 - Mixed Upland Deciduous with Conifer Sapling Well 48.0 16 Immature N/A

Stand is progressing nicely, leaving the notes in below from recent survey in 2019.

Canopy Species	% Cover	Size Class	DBH	Age
Black/Red (Hybrid) Oak	40	Sapling	2	16
Bigtooth Aspen	10	Sapling	3	16
Red Maple	10	Sapling	1	16
White Oak	5	Sapling	2	16
Jack Pine	5	Sapling	1	
Black Cherry	5	Sapling	1	16

Old comments: ( Stand is primarily PARVHa/PArVVb. Stand data was updated from a 2018 field evaluation by Machusko for a project on free to grow red pine. Monitoring Rx closed out in 2019 based on that data. Mix of planted pine and oak nat regen acceptable. FTP complete.)

**38** 4125 - Black, N. Pin Oak Poletimber Well 18.0 45 1-50 N/A

Stand is variable in terms of diameters and basal area. Looks like it might have been a species removal with some red pine retention. As there are some saw log sized red pine. In the other story, most of the Maple and oak are still sprout. Regeneration which usually is consistent with variable diameter. Overall the stand is looking well just hold and reassess at next inventory.

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	3	Pole/Sap/Log	7	
Quaking Aspen	5	Pole/Sapling	6	
Red Maple	10	Pole/Sapling	6	
Jack Pine	2	Pole/Sapling	7	
Black/Red (Hybrid) Oak	80	Pole/Sapling	6	45

Sub-Canopy Species	Density	Avg. Height	Size
Oak (spp.)	Medium	Variable	Sapling
Red Maple	Medium	>20 feet	Sapling

Old notes: regeneration is 20-30 feet tall, mostly pin oak, red maple, and a few aspen, red and jack pine. Dense stand , consisting of mostly poles with still some sapling sizes. To much snow to record ground cover. Site is PARVHa/PArVVb.

**39** 4139 - Aspen, Mixed Deciduous Poletimber Well 12.1 35 N/A

Stand was final harvested in 2008/09 under 72-608-06-01, this harvest removed residual red pine, majority of stand was harvested in 1987. Young mixed aspen and red maple stand with some oak. Stand is PARVHa/PArVVb. Regen survey was conducted for this small stand Old OI 36, majority of stand was large sapling, regen layer was oak and maple. Stand failed the regen MO of aspen but passes as oak, maple. Recommending accepting present regen.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	40	Pole/Sapling	5	35
Quaking Aspen	50	Pole/Sapling	6	35
Northern Pin Oak	10	Pole/Sapling	5	

Sub-Canopy Species	Density	Avg. Height	Size
Oak (spp.)	Medium	< 5 feet	Sapling
Red Maple	High	>20 feet	Sapling
Black Cherry	Low	Variable	Sapling
Aspen (spp.)	Medium	>20 feet	Sapling

**40** 42120 - Planted Jack Pine Poletimber Well 129.5 37 1-50 N/A

Stand is progressing really nicely, looking like it has graduated into pole size classification. Some sapling sized stems still persist but overall stand is looking good.

Canopy Species	% Cover	Size Class	DBH	Age
Northern Pin Oak	2	Sapling/Pole	4	
Jack Pine	94	Pole/Sapling	6	37
Quaking Aspen	2	Pole	6	
Red Maple	2	Sapling/Pole	4	

old notes: Young jack pine stand harvested in 1986 and planted in 1987. There is an aspen clone of pole sized stems in the NE corner adjacent to the private land. Not enough to delineate out. Stand is PVCd.

**41** 42110 - Planted Red Pine Sawtimber Well 15.7 82 51-80 N/A

Stand seems of fairly low stocking, perhaps it was just were my plots fell, but overall average of 50 sq ft of basal area based off 7 plots; that said, there is some variability within the stand where the target BA from previous harvest was likely accurate. In particular the stocking on the east side of the road is quite low. There is a pocket of jack pine in the NNE corner of the stand, but seems to be of different age class than adjacent S40 J6.

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	100	Log	14	82

Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	Low	Variable	Sapling
Oak (spp.)	Medium	5 - 10 feet	Sapling
Jack Pine	Low	Variable	Sapling
Black Cherry	Low	Variable	Sapling

Prvious comments: (Stand was thinned in the winter of 2009/10. Red Pine thinned down to 80BA. Site index was 55 and stand is primarily PVCd.)



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
42	4311 - Pine, Aspen Mix	Poletimber Medium	9.5	37	1-50	N/A	<p>Young small clone of aspen between jack pine plantation and mature aspen stand along the two track. Stand appears to have been harvested at the same time as adjacent Stand 40 via High Banks Block in 1986-7, aerial imagery confirms this. The eastern portion of this stand where it borders S43 is more dominated by sparse jack pine and black cherry. Stand primarily runs along a ridge, where I assume planting was/could not be conducted, or it just exhibited failed planting here. Separated out the western portion of the stand where there is a dispersed camp site, likely for deer camp(s).</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Maple	3	Sapling/Pole	4		Aspen (spp.)	Low		Variable	Sapling
Quaking Aspen	35	Pole/Sap/Log	6	37	Red Maple	Low		Variable	Sapling
Red Pine	6	Pole	6		Oak (spp.)	Low		Variable	Sapling
Pin Cherry	15	Sapling/Pole	4		Red Pine	Low		Variable	Sapling
Red Pine	2	XLog	24	178	Cherry (spp.)	Medium		Variable	Sapling
Black/Red (Hybrid) Oak	2	Sapling/Pole	4						
Jack Pine	35	Sapling/Pole	4	37					
White Pine	2	XLog	20						
43	4130 - Aspen	Poletimber Well	18.0	50	51-80	N/A	<p>stand is almost meeting requirements to be called sawlog but still a decent amount of pole timber exists. stand looks really good and is holding. up well with little mortality. Low stocking overall and where there is low enough stocking in areas, new aspen is already being recruited into mid story. 5 plots averaged 48 sq ft of basal area. Ground is snow covered but seems upland for the most part, with obviously some lowland influence to the south visible by aerial imagery. Old notes: Calling a lowland as kotar for this area is primarily unclassified lowland, western edge is PVCd.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	5	Pole	6		Cherry (spp.)	Medium		Variable	Sapling
Red Maple	5	Pole/Log	8		Black Spruce	Low		< 5 feet	Sapling
Quaking Aspen	75	Pole/Log	9	50	Balsam Fir	Low		< 5 feet	Sapling
Northern Pin Oak	5	Pole/Log	8		Oak (spp.)	Low		Variable	Sapling
Black Spruce	5	Pole/Log	8	82	White Pine	High		Variable	Sapling
Balsam Fir	5	Pole/Log	8		Japanese Barberry	Low		5 - 10 feet	Tall Shrub
					Jack Pine	Low		Variable	Sapling
44	310 - Herbaceous Openland	Nonstocked	15.0		Immature	No	<p>Stand is slow but surely filling in with some jack pine and oak. still overall very low stocking on the site, as black cherry is also filling in some areas. Keeping old comments on here as they are relevant to the current status of the stand.</p> <p>Old comments: (Stand harvested in 2010 under contract 72-607-06-01 274 Pine. FTP C72-648/649. Could not see any regen because of snow depth, sapling to pole sized Jack pine on site in very low density. Regen survey conducted on Old OI 6 with Jack pine MO, regen survey failed on MO and other regen as well. Was roller-chopped in 2016 (C72-648, 37 acres) and 19 acres in the north half were trenched and planted to RP in May 2018.</p> <p>The south half was added to the 2006 YOE FTP C72-648 during 2016 YOE inventory. Rare plants found during cultivation site survey precluded further site prep and necessitated termination of the 2016 YOE Rx for the south half and exclusion of an acre in the north along Bald Hill Rd. )</p>		
Sub-Canopy Species	Density	Avg. Height	Size						
Black/Red (Hybrid) Oak	Medium	5 - 10 feet	Sapling						
Jack Pine	Medium	5 - 10 feet	Sapling						
Black Cherry	Low	5 - 10 feet	Sapling						
Red Pine	Low	< 5 feet	Seeding						
45	320 - Upland Shrub	Nonstocked	1.4	0		No	<p>This is a small non-forested opening that just so happens to also encompass a dispersed camping area, likely utilized as a hunting camp. Primarily some shrubby black cherry are beginning to take over this opening. There are a few XL sized red pine that are found within this stand. The fact that this area wasn't planted when the adjacent stand 40 was, leads me to believe management in this small opening is being avoided.</p>		
Sub-Canopy Species	Density	Avg. Height	Size						
Black Cherry	Medium	5 - 10 feet	Sapling						
Red Pine	Low	>20 feet	Log						