



# Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72222

Entry Year 2024

Acreage: 813

County Crawford

Management Area: Ogemaw Hills

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**Stand Examiner:** Joan Charlebois

**Legal Description:**

T26N R3W Sections 28, 29

**Identified Planning Goals:**

To maintain riparian and forest health, structural and species diversity, and overall productivity while providing for sustainable multiple uses. In addition, lands in Section 29 have been identified for potential disposal for Industrial development.

**Soil and topography:**

The soils are predominantly Grayling and Graycalm sands. Terrain is rolling to steep, with the steepest slopes in the east half of the compartment

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

The compartment is bordered by a mix of industrial properties, state land, and private land used for seasonal recreation. The Straits Corporation Railroad bisects the compartment. Section 29 is part of a Memorandum of Understanding that guides disposal of parcels for future Industrial Park expansion. A 100-foot wide strip of land along I-75 and the west side of the compartment in section 29 was conveyed to Grayling Township for the development of a non-motorized trail corridor. A radio tower is located on the hilltop in the south end of section 28. Illegal off road vehicle use north of the radio tower in a former borrow pit has limited revegetation of that area.

**Unique Natural Features:**

None known

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

There are known concerns within the compartment.

**Special Management Designations or Considerations:**

Section 29 is part of a Memorandum of Understanding that identified parcels of state land that will be held for future sale or exchange to assist in the development of the Crawford County Industrial Park.

**Watershed and Fisheries Considerations:**

Barker Lake is located in the northeast of the Compartment. It is small, shallow and occupies a steep ice-contact depression.

**Wildlife Habitat Considerations:**

The compartment's mix of oak, aspen and jack pine cover provides habitat for deer, grouse, and turkey. There is also a lot of hare activity in the dense jack pine that regenerated after the 4 Mile Fire.

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

No known potential exists for commercial metallic mineral production in this part of the state. Two active sand/gravel pits exist within one mile of the compartment, to the north and southeast, in sections 20 and 27, respectively.

There appears to be good potential for additional sand & gravel within the compartment. The nearest significant hydrocarbon production, past or present, is the Beaver Creek Field five miles southwest. Potential for hydrocarbon development within the compartment is considered low at this time. There has been no recent well permit activity in the area and no State mineral leasing in the last five years. Interest in developing unconventional (horizontal drilling) plays in the Collingwood and Lucas (Richfield Member) formations in the recent past have dissipated.

**Vehicle Access:**

The next phase of Industrial Drive ROW tree clearing was completed within the compartment in 2021, with road construction to follow. That road will provide access to the west half of the compartment. The east half of the compartment is accessed by way of Barker Lake Road and a network of forest roads. There are no crossings over the railroad tracks within the compartment.

**Survey Needs:**

None at this time.

**Recreational Facilities and Opportunities:**

Dispersed snowmobiling, hunting, and ORV use occurs within the compartment. The planned Iron Belle Trail, a non-motorized recreation corridor, will border the compartment's northwest edge.

**Fire Protection:**

The 4 Mile Fire burned most of the west end of the compartment in 2008. The clearing and construction of the 150-foot wide Industrial Drive corridor will improve fire control access to that area.

**Additional Compartment Information:**

The following reports from the Inventory are attached:

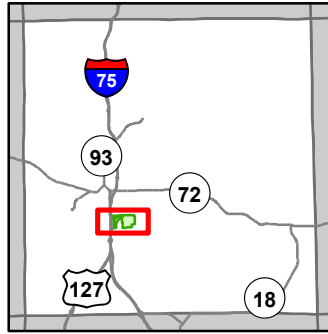
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

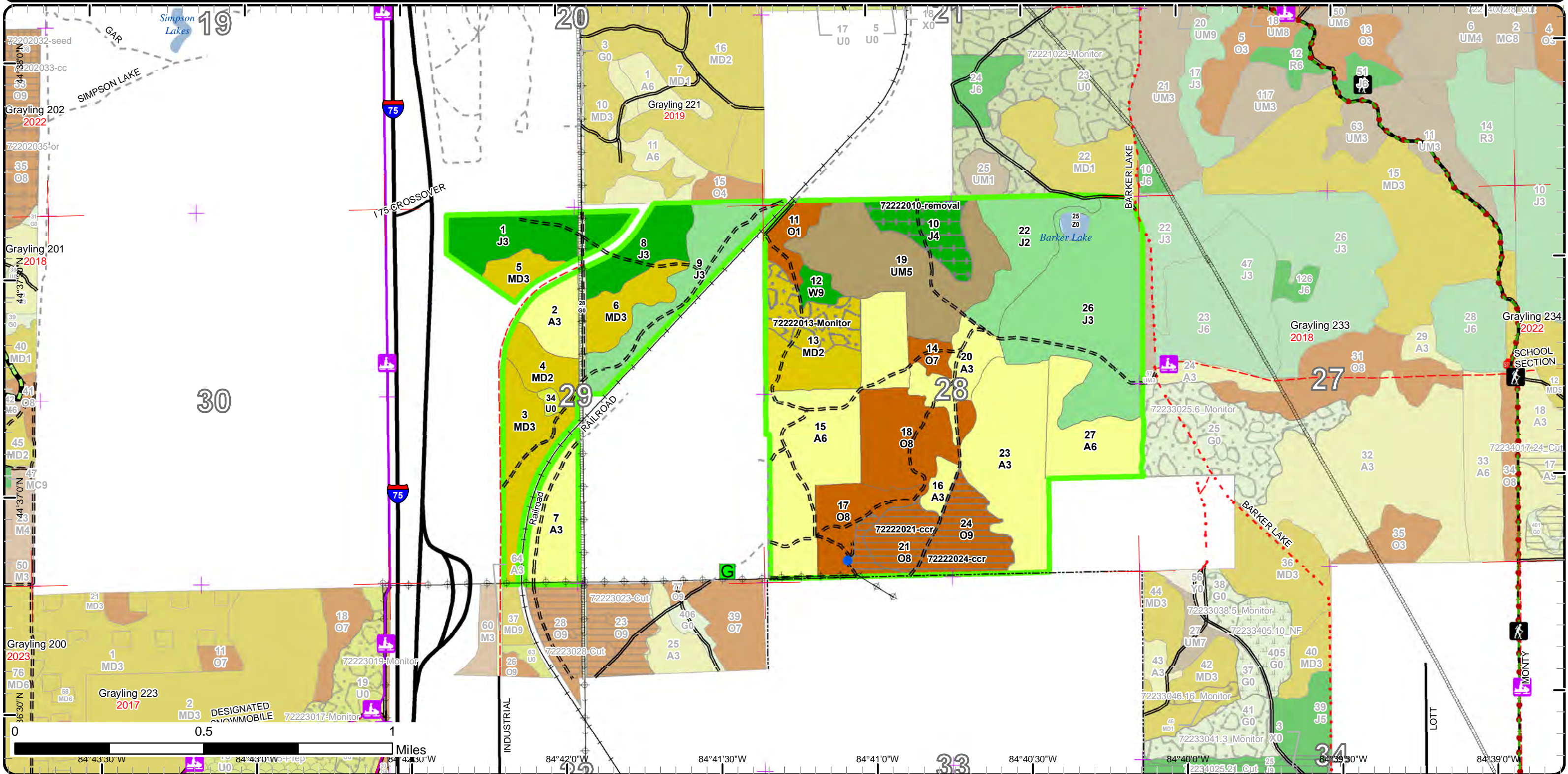
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

Compartment: 222  
 T26N, R03W, Sec. 28, 29  
 County: Crawford  
 Unit: Grayling  
 Mgmt Area: Ogemaw Hills  
 YOE: 2024  
 Acres: 812.8 GIS Calculated  
 Examiner: Joan Charlebois  
 Map Revised: 12/27/2022  
 Map Phase: Post-Review

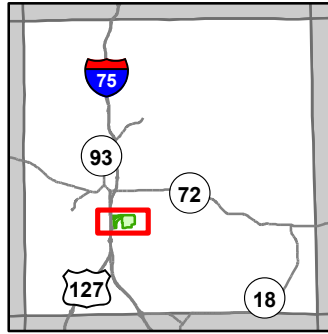


- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State Highway
- Federal / State / County - Paved Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Active Railroads
- Hiking Trails
- Horse Trails
- Snowmobile Trails
- Designated Hiking Trails
- Designated Equestrian Trails
- Designated Multi-Use Trails
- - - Designated ORV Route
- Designated Snowmobile Trails
- Non-DNR Trails - User Created
- G Gate
- STOP Sign
- Tower
- Lake/Pond
- Lakes and Rivers
- Pipeline
- Powerline
- Fence
- Compartment Boundary
- Clearcut (w/Reserves)
- Harvest, Overstory Removal
- Regeneration Survey
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water

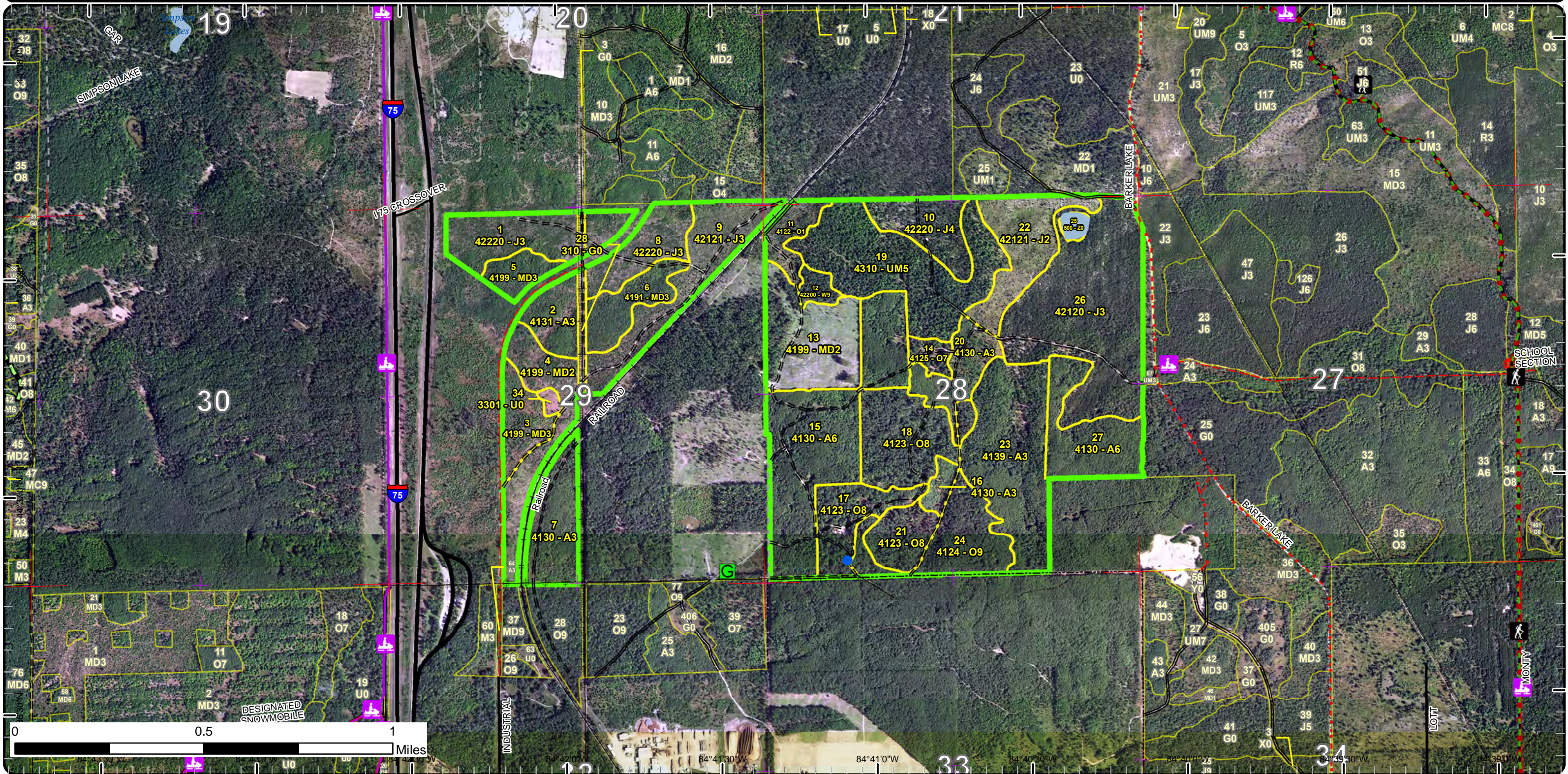


# Stand Boundary Map

Compartment: 222  
 T26N, R03W, Sec. 28, 29  
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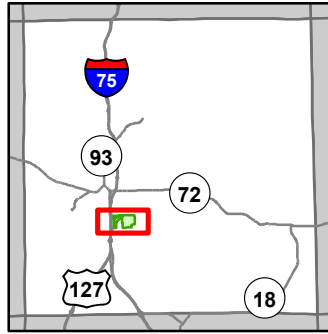


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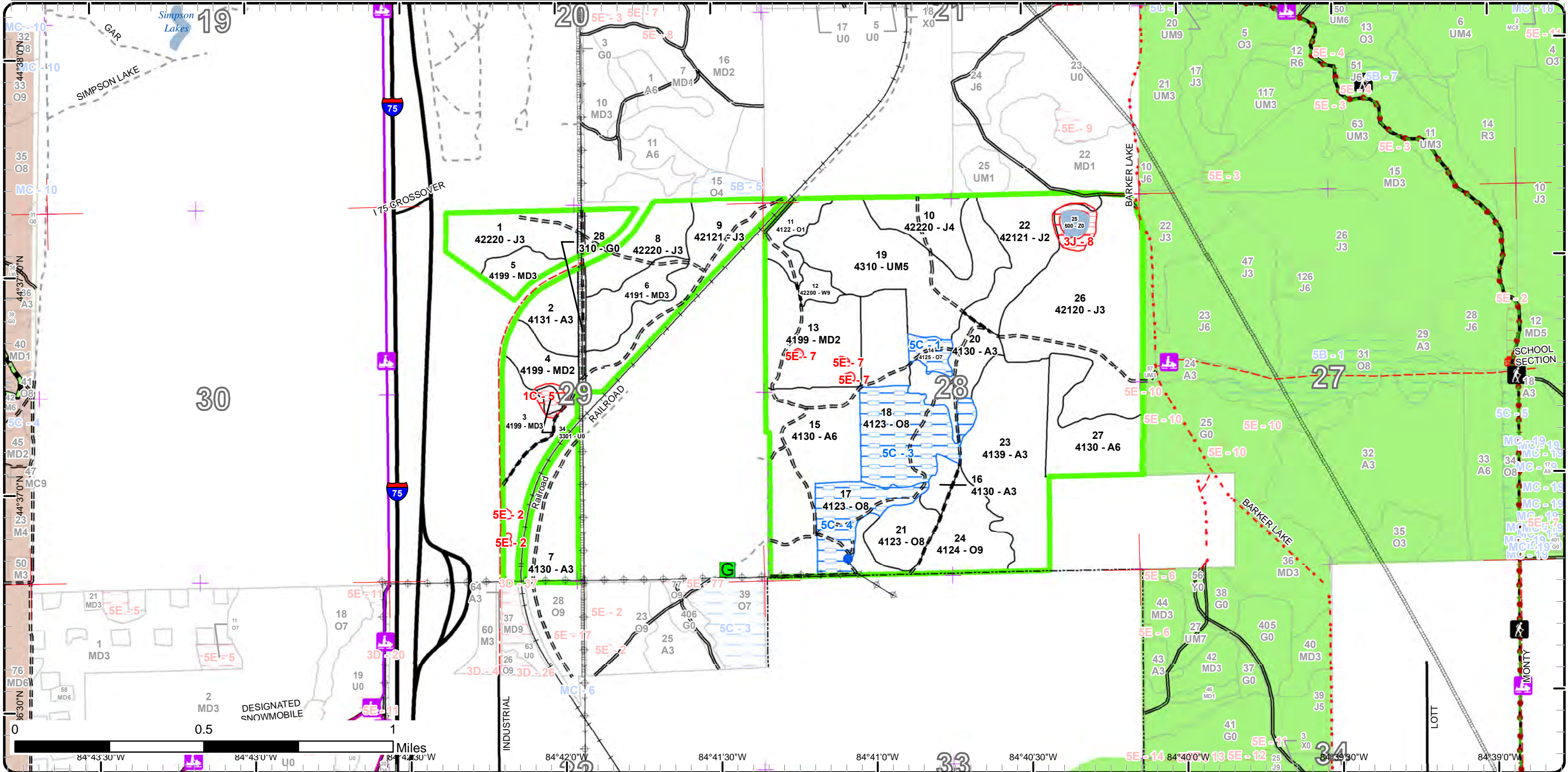


# Special Conservation Areas

Compartment: 222  
 T26N, R03W, Sec. 28, 29  
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- 📶 Tower
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- 🌊 Lakes and Rivers
- Pipeline
- Fence
- 🟩 Compartment Boundary
- 🟦 Available w/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 🔴 Unavailable
- 1C: Other dept or div proc/practices
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- 🟩 Stand Boundaries
- 🟩 Kirtland Warbler Habitat
- 🟤 Research, Development, and Military Lands



84°43'30"W 84°43'00"W 84°42'30"W 84°42'00"W 84°41'30"W 84°41'00"W 84°40'30"W 84°40'00"W 84°39'30"W 84°39'00"W

# Report 1 – Total Acres by Cover Type and Age Class

Grayling Mgt. Unit

Compartment 222 Year of Entry 2024

Joan Charlebois : Examiner



## Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	68	63	111	0	0	0	0	0	0	0	0	0	0	0	0	0	241
Herbaceous Openland	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Jack Pine	0	0	127	0	94	0	22	0	0	0	0	0	0	0	0	0	0	0	243
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Mixed Upland Deciduous	0	42	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117
Oak	0	0	12	0	0	0	0	0	0	0	0	116	0	0	0	0	0	0	128
Upland Mixed Forest	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	67
Water	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
White Pine	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
<b>Total</b>	<b>11</b>	<b>42</b>	<b>282</b>	<b>63</b>	<b>205</b>	<b>0</b>	<b>22</b>	<b>67</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>116</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>812</b>



## Report 2 – Treatment Summary

Grayling Mgt. Unit

Year of Entry: 2024

Acres of Harvest

Compartment 222

Total Compartment Acres: 813

Commercial Harvest - 70  
 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
Jack Pine	0	0	0	0	0	22	0	0		22
Oak	48	0	0	0	0	0	0	0		48
<b>Total</b>	<b>48</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>0</b>		<b>70</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	70	0	0	0	0	23	0	0		93
Next Step	0	0	0	0	0	48	0	0		48
<b>Total</b>	<b>70</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>71</b>	<b>0</b>	<b>0</b>		<b>141</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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**Approved Treatments:**

<b>10</b>	<b>72222010-removal</b>	22.1	42220 - Natural Jack Pine	Poletimber Poor	58	51-80	Harvest	Overstory Removal	42221 - Natural Jack Pine, Mixed Deciduous	Even-Aged	No
<p><u>Prescription</u> Remove the mature JP. Protect the advanced regen except cut saplings in operational paths. Site the area retention in the NE corner to address green-up concerns with adjacent stand 23 in comp 221.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Objective is to release the existing 27-year old JP-O regen. Areas that were sparse pre-harvest are expected to remain sparse.</p> <p><u>Other Comment:</u> The mature JP cover is patchy and becomes widely-scattered in the NW. This will be a low-volume removal, prescribed in order to address the 2-aged JP condition that favors jack pine budworm infestation.</p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>											

<b>13</b>	<b>72222013-Monitor</b>	23.3	4199 - Other Mixed Upland Deciduous	Sapling Medium	6	Immature	Monitoring	Natural Regen (Re-Inventory)	4199 - Other Mixed Upland Deciduous	Even-Aged	No
<p><u>Prescription</u> check regen</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Moderate to low stocking in RM-A-O.</p> <p><u>Other Comment:</u> S1/2 of stand passed initial regen survey in 2022. This N1/2 needs more time to reach minimum height &amp; stocking standards.</p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>											

<b>21</b>	<b>72222021-ccr</b>	16.0	4123 - Red Oak	Sawtimber Medium	102	51-80	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	No
<p><u>Prescription</u> Harvest stems 2"+ DBH except RP-WP and island retention. Consider focusing the area retention in the west end and merge it with stand 24's retention island.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Moderate stocking in RM-O-A with poorly stocked inclusions.</p> <p><u>Other Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>											





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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
24 72222024-ccr	31.8	4124 - Red with White Oak	Sawtimber Well	103	81-110	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	No
<p><u>Prescription</u> Harvest stems 2"+ DBH except RP-WP and island retention. Consider focusing the area retention on the steepest ground in the west end by the old borrow pit and merge it with stand 21's retention island.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Moderate stocking in A, RM, oak, with poorly stocked inclusions.</p> <p><u>Other Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>										

**Total Treatment Acreage Proposed: 93.2**

## Report 4 – Site Conditions

Grayling Mgt. Unit  
Joan Charlebois : Examiner

Compartment: 222  
Year of Entry: 2024

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	5C	1C	3J	5E
		With Condition	Not Available					
241	241	0	0	Aspen				
6	6	0	0	Herbaceous Openland				
243	239	0	5	Jack Pine			5	
2	0	0	2	Low-Density Trees		2		
118	114	0	3	Mixed Upland Deciduous		2		2
128	60	68	0	Oak	68			
67	67	0	0	Upland Mixed Forest				
3	3	0	0	Water				
5	5	0	0	White Pine				
813	735	68	10	Total Forested Acres	68	4	5	2
	90%	8%	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	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Marginally forested old field.							
2	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Pair of islands left when stand 4 was harvested in 2016.							
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	39	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> This stand represents a third of the mature oak cover within the compartment. Draft oak treatments this YOE are proposed on adjacent stands 21 & 24.							

**Report 4 – Site Conditions**

**Grayling Mgt. Unit**  
**Joan Charlebois : Examiner**

**Compartment: 222**  
**Year of Entry: 2024**

4	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	23	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b>                  This stand represents 20% of the mature oak cover within the compartment. Draft oak treatments this YOE are proposed on adjacent stands 21 &amp; 24.</p>							
5	<b>Unavailable</b>	<b>1C: Other dept or div proc/practices</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b>                  See locked comments</p>							
7	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b></p>							
8	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b>                  Slopes above Barker Lake</p>							

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
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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																					
1	42220 - Natural Jack Pine	Sapling Well	33.8	14	Immature	N/A	Immature JP stand burned in the April 2008 4-Mile fire and regenerated to excessively-stocked JP cover dotted with small gaps. Oak and traces of aspen increase on the upper slopes. The dog-hair thick JP cover is being heavily used by hare.																																																					
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Black Cherry</td> <td>4</td> <td>Sapling</td> <td>1</td> <td>14</td> </tr> <tr> <td>Jack Pine</td> <td>85</td> <td>Sapling</td> <td>1</td> <td>14</td> </tr> <tr> <td>White Oak</td> <td>3</td> <td>Sapling</td> <td>1</td> <td>14</td> </tr> <tr> <td>Quaking Aspen</td> <td>1</td> <td>Sapling</td> <td>2</td> <td>14</td> </tr> <tr> <td>Northern Pin Oak</td> <td>7</td> <td>Sapling</td> <td>2</td> <td>14</td> </tr> </tbody> </table>								Canopy Species	% Cover	Size Class	DBH	Age	Black Cherry	4	Sapling	1	14	Jack Pine	85	Sapling	1	14	White Oak	3	Sapling	1	14	Quaking Aspen	1	Sapling	2	14	Northern Pin Oak	7	Sapling	2	14																							
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2	4131 - Aspen, Oak	Sapling Well	15.4	14	Immature	N/A	Immature aspen stand burned in the April 2008 4-Mile fire and regenerated to dense A-O cover on the upper slopes, with sparser JP-O cover in the valley.																																																					
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Prairie Willow	Trace	< 5 feet	Tall Shrub																																																									
3	4199 - Other Mixed Upland Deciduous	Sapling Well	16.2	13	Immature	N/A	Mature oak stand was burned in the April 2008 4-Mile fire. A salvage harvest was completed in early 2009 (#631-08), cutting stems 2"+ DBH except live conifers & marked trees (<10 sq ft). Regenerated to a mix of O-RM-A. Dense cover alternates with lower-stocked inclusions.																																																					
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4	4199 - Other Mixed Upland Deciduous	Sapling Medium	30.3	14	Immature	N/A	The stand burned in the April 2008 4-Mile fire. It was not part of the initial 4-Mile Fire Salvage in 2009 but was salvaged later in 2015 (#027-14), cutting merch stems except retention islands, because of continued decline in the overstory. The sapling canopy is two-layered, with regen from the fire above the regen from the harvest. Overall stand age was set to the harvest. Passed regen survey to moderately stocked O-A-RM cover.																																																					
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																															
5	4199 - Other Mixed Upland Deciduous	Sapling Well	10.2	14	Immature	N/A	Immature JP-A stand burned in the April 2008 4-Mile fire and regenerated to dense O-A-JP cover. JP increases on the lower slopes. Aspen increases on the upper slopes. Oak occurs throughout. There is some stump-origin oak but most of it is single-stem origin.																																																															
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6	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	18.9	14	Immature	N/A	The stand burned in the April 2008 4-Mile fire. The south half was harvested summer 2008 (#033-04), cutting stems 2"+ DBH. The harvested portion was trenched in 2010 (C72-650) and planted to JP in 2011. Naturally-established O-A-JP regen filled in densely around a minor component of planted JP. There is some stump-clump oak, but most of it is single-stem origin, including WO thickets.																																																															
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7	4130 - Aspen	Sapling Well	27.0	16	Immature	N/A	A-O stands were final harvested in spring 2006, cutting stems 2"+ DBH. A two-chain wide strip along the RR tracks fell within the April 2008 4-Mile fire perimeter. Regenerated to A-RM-O, with most of the oak occurring in the fire area.																																																															
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8	42220 - Natural Jack Pine	Sapling Well	21.9	14	Immature	N/A	Immature JP stand burned in the April 2008 4-Mile fire and regenerated to excessively-stocked JP cover dotted with small gaps. Oak and traces of aspen increase on the upper slopes. The dog-hair thick JP cover is being heavily used by hare.																																																															
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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>9</b>	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	38.5	11	Immature	N/A	Overmature JP stand was on contract when it burned in the April 2008 4-Mile fire. Was harvested summer 2008 (#033-04), cutting stems 2" + DBH. Was trenched in 2010 (C72-650) and planted to JP in 2011. Stand passed Year 3 regen surveys with a mix of planted JP and naturally established oak regen. The oak component increases in the SW half; the JP is more open-grown there.
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Canopy Species	% Cover	Size Class	DBH	Age
Jack Pine	80	Sapling	2	11
Northern Pin Oak	10	Sapling	2	14
White Oak	5	Sapling	1	14
Bigtooth Aspen	1	Sapling	2	14
Quaking Aspen	1	Sapling	1	14

<b>10</b>	42220 - Natural Jack Pine	Poletimber Poor	22.1	58	51-80	N/A	Oak-pine stand was final harvested in 1995 (#030-94), cutting merch stems. The now pole-sized JP residual from the harvest forms a discontinuous canopy, along with scattered residual WP-RP-O-RM. This patchy canopy becomes even sparser in the NW. JP-O regen from the cut is on the verge of shifting into the canopy. That regen makes the canopy appear fuller.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Oak	2	Pole/Log	8		Red Maple	Low	Variable	Sapling
Red Maple	1	Pole	7		Jack Pine	Medium	10 - 20 feet	Sapling
Jack Pine	90	Pole	7	58	Black Cherry	Low	Variable	Tall Shrub
White Pine	3	Log/Pole	12		White Oak	Low	Variable	Sapling
Northern Pin Oak	1	Pole/Log	8		White Pine	Trace	Variable	Sapling
Red Pine	3	Log/Pole	12		Northern Pin Oak	Medium	Variable	Sapling

<b>11</b>	4122 - Oak, Pine	Sapling Poor	11.6	14	Immature	N/A	Overmature JP stand was final harvested in 2008 (#033-04), cutting merch stems except green-marked (oak left for visual along the pvt line). Was on C72-602 but was not trenched or planted. Variable distribution in regen and residual from the cut; sparsest in the valley and increases moving upslope.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	3	Pole/Log	8		Black Cherry	Low	< 5 feet	Tall Shrub
Northern Pin Oak	40	Sapling	1	14	Northern Pin Oak	Medium	< 5 feet	Seeding
Red Pine	2	Pole	8					
Black Cherry	5	Sapling	2	14				
White Oak	20	Sapling/Pole	4	54				
Red Maple	5	Sapling	1	14				
Jack Pine	25	Sapling/Pole	2					

<b>12</b>	42200 - Natural White Pine	Sawtimber Well	5.3	72	51-80	N/A	A couple of xlog WP seeded in the majority L-P cover. The NPO has largely died out. There is a significant WO component, along with minor amounts of RP-RM-JP-BTA.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	5	Log/Pole	12		Northern Pin Oak	Low	< 5 feet	Seeding
Jack Pine	2	Pole	7		Red Pine	Low	< 5 feet	Sapling
Red Maple	3	Pole/Sapling	7		White Oak	Low	< 5 feet	Seeding
Northern Pin Oak	5	Log/XLog	14		White Oak	Low	Variable	Sapling
White Oak	20	Log/Pole	10	97	White Pine	Low	Variable	Sapling
White Pine	65	Log/Pole	11	72				





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>13</b>	4199 - Other Mixed Upland Deciduous	Sapling Medium	42.3	6	Immature	N/A	Mature O-RM-A stand was final harvested under two contracts: the majority in spring 2016 (#021-14), cutting stems 2"+ except RP-WP and 3 retention islands, and most of the area west of the road was cut 2"+ in spring 2017 (#019-17). Regenerated to variably distributed RM-A-O. Cover is sparser in the N1/2, with more oak mixed in. Aspen increases in the S1/2. RM throughout. The stump-origin oak saplings are recruiting. The single-stem oak is largely in the seedling class. Regen in the stand's S1/2 passed to moderate stocking at re-inventory. The N1/2 did not meet moderate stocking at >6' tall yet, so another monitoring treatment is proposed for that portion of the stand.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Bigtooth Aspen		1	Log	12		Witch Hazel		Low	5 - 10 feet	Tall Shrub
White Pine		2	Log/Pole/Sap	11		Black/Red (Hybrid) Oak		Medium	< 5 feet	Seeding
Bigtooth Aspen		25	Sapling	1	6	White Oak		Medium	< 5 feet	Seeding
Black Cherry		5	Sapling	1	6	Black Cherry		Low	< 5 feet	Tall Shrub
Red Maple		44	Sapling	1	6					
Black/Red (Hybrid) Oak		10	Sapling	1	6					
White Oak		10	Sapling	1						
Black/Red (Hybrid) Oak		2	Log	15						
Red Pine		1	Log/Pole	12						

<b>14</b>	4125 - Black, N. Pin Oak	Sawtimber Poor	6.0	100	1-50	N/A	Appears to have been maintained open prior to state acquisition. Has been slowly filling in since the 1938 air photo series. Merch aspen was cut across part of the stand in 1960 (#056-60). Cover varies from xlog to sapling, with open-grown form common. Openings that haven't been colonized have big & little bluestem.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Northern Pin Oak		65	Log/Pole/XLog	12	100	Red Maple		Low	10 - 20 feet	Sapling
Red Maple		10	Pole/Sap/Log	5		Northern Pin Oak		Low	10 - 20 feet	Sapling
White Pine		1	Log	14						
White Oak		7	Log/XLog/Pole	15						
Bigtooth Aspen		15	Pole/Log	8	62					
Black Cherry		2	Pole/Sapling	6						

<b>15</b>	4130 - Aspen	Poletimber Well	78.9	34	81-110	N/A	Oak stand w/ RM-A was final harvested in early 1988 (#006-86), cutting merch stems. Stand regenerated to aspen with variable distribution in RM-O. The BRO is clean-boled and weeding down to 1-3 stems per stump clump. The NPO has typical poorer form.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Black/Red (Hybrid) Oak		8	Pole	7	34	Witch Hazel		Low	10 - 20 feet	Tall Shrub
Bigtooth Aspen		70	Pole	6	34					
Black Cherry		1	Pole	5						
Pin Cherry		1	Pole	5						
Red Maple		17	Sapling/Pole	3	34					
Northern Pin Oak		2	Pole/Sapling	6	34					
White Oak		1	Sapling/Pole	3						

<b>16</b>	4130 - Aspen	Sapling Well	5.5	13	Immature	N/A	Aspen stand was final harvested in 2009 (#017-08), cutting stems 2"+ DBH except scattered residual O-RM-RP on the perimeter. Regenerated to aspen with RM and a minor but competitive oak component.			
Canopy Species		% Cover	Size Class	DBH	Age					
White Oak		5	Sapling	3						
Bigtooth Aspen		63	Sapling	2	13					
Red Oak		10	Sapling	2	13					
Red Maple		20	Sapling	2	13					
Red Oak		1	Log	15						
White Oak		1	Log	12						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
17	4123 - Red Oak	Sawtimber Medium	23.4	102	51-80	N/A	On the 1938 air photos, this stand has a gappy, discontinuous canopy. The current canopy is dominated by open-grown oak and large cull RM stump clumps. O-A-RM had been filling in the gaps. The aspen is part of the canopy now but most of the immature O-RM is still subcanopy. Aspen was arbitrarily chosen to represent the second age class that is present across most of the species. The oak and RM regen makes the canopy appear fuller. The large area of disturbed ground that was visible in on the '38 photos was a borrow pit. Berms put in place to close off access to the pit have been breached and there are several hill climb runs. A radio tower is located in the SE. The stand is on rolling to steep terrain.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Red Oak		45	Log/XLog	17	102	White Oak		Medium	Variable	Sapling
Black/Red (Hybrid) Oak		10	Log/Pole/XLog	14		Black/Red (Hybrid) Oak		Low	Variable	Sapling
White Oak		10	Log/XLog/Pole	14		Witch Hazel		Low	10 - 20 feet	Tall Shrub
Bigtooth Aspen		10	Log/Pole	10	52	Black/Red (Hybrid) Oak		Low	>20 feet	Pole
Red Maple		25	Log/Pole	10		Serviceberry (Juneberry)		Trace	>20 feet	Sapling
						Red Maple		Low	Variable	Sapling
18	4123 - Red Oak	Sawtimber Medium	38.7	103	51-80	N/A		Oak stand was shelterwood harvested in 2009 (#017-08), cutting stems 2"+ DBH except green-marked (40 BA cruised resid). Variable canopy closure; BA averages in the low end of 51-80. Epicormic branching is common where the canopy is sparser. The minor hybridized oak component on the perimeter has been dropping out of the canopy. Understory dominated by RM-A with a minor amount of oak regen.		
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>			<b>Density</b>	<b>Avg. Height</b>
Red Maple		5	Pole/Sapling	6		Witch Hazel	Low		5 - 10 feet	Tall Shrub
White Oak		14	Log	11		White Oak	Low		5 - 10 feet	Sapling
Red Oak		75	Log/XLog	14	103	Red Oak	Low		10 - 20 feet	Sapling
White Pine		1	Pole/Log	8		Bigtooth Aspen	Medium		>20 feet	Sapling
Black/Red (Hybrid) Oak		5	Log	12		White Oak	Low		< 5 feet	Seeding
						Red Maple	Medium		>20 feet	Sapling
19	4310 - Pine, Oak Mix	Poletimber Medium	66.9	64	51-80	N/A	Mature oak-pine stand on rolling terrain was final harvested in 1995 (#030-94), cutting merch stems. The canopy is majority WP residual from the cut. Where the pine residual was sparse, stump-sprout oak regen has recruited into the canopy. There is a blurred line between the canopy & subcanopy in many areas. The understory has well developed single-stem WO regen throughout that makes the canopy appear fuller.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>			<b>Density</b>	<b>Avg. Height</b>
Jack Pine		5	Pole	7		White Oak		High	Variable	Sapling
Bigtooth Aspen		2	Sapling/Pole	4		Northern Pin Oak		Low	5 - 10 feet	Sapling
White Oak		10	Pole/Log/Sap	8		White Pine		Trace	Variable	Sapling
Red Maple		20	Pole/Sapling	7						
Red Pine		8	Log/Pole	10						
Northern Pin Oak		10	Sapling/Pole	4	27					
White Pine		45	Log/Pole	11	64					
20	4130 - Aspen	Sapling Well	19.6	14	Immature	N/A		A-O cover was final harvested summer 2008 (#033-04), cutting stems 2"+ DBH except WP. The south peninsula was cut in stand 18's 2009 harvest. There is dense aspen regen in the stand's W1/2 and mixed A-RM-O-WP in the E1/2. A trace of balsam poplar. Sparser cover in the north end.		
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	<b>Density</b>		<b>Avg. Height</b>	<b>Size</b>
Northern Pin Oak		5	Sapling	2		Witch Hazel	Low		5 - 10 feet	Tall Shrub
Bigtooth Aspen		65	Sapling	2	14	Black Cherry	Low		5 - 10 feet	Tall Shrub
White Pine		10	Log/Pole/XLog	14	57					
White Oak		5	Sapling	2						
Red Maple		15	Sapling	1	14					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
21	4123 - Red Oak	Sawtimber Medium	16.0	102	51-80	N/A	Mature oak stand was shelterwood harvested in 2007 (#055-04), cutting stems 2"+ DBH except green-marked (40 BA tsale cruised resid). Variable canopy closure; BA averages in the low end of 51-80. Epicormic branching is common where the canopy is sparser. The minor hybridized oak component on the perimeter has been dropping out of the canopy. Understory dominated by RM with traces of O-A regen.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Red Oak		90	Log	13	102	Bigtooth Aspen		
White Oak		5	Log/Pole	10		Witch Hazel		
Black/Red (Hybrid) Oak		5	Log/Pole	12		Red Maple		
						Red Oak		
						White Oak		
22	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Medium	32.8	10	Immature	N/A	Mature JP stand on rolling terrain was final harvested in 2008 (#033-04), cutting stems 2"+ DBH. Was trenched in 2009, planted to JP in 2010 (C72-602), and re-planted in 2012. Passed Year 3 regen survey to a mix of planted JP and significant natural regen (oak). Open-grown form common in the JP. NPO stump sprouts above the planted JP. Occasional residual 1-stick JP & NPO. Traces of aspen regen in the SW.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>			
Bigtooth Aspen		1	Sapling	2	14			
Black Cherry		5	Sapling	1				
Jack Pine		80	Sapling	2	10			
23	4139 - Aspen, Mixed Deciduous	Sapling Well	62.5	28	1-50	N/A	Mature A-O stand on rolling terrain was final harvested by late 1994 (#053-94), spec'd to cut stems 2"+ DBH except oak <6" DBH and all RP. WO residual is scattered throughout, with patches of uncut oak cover on the steeper slopes. Most of the RP is in one pocket. Regenerated well to aspen with RM and a minor but competitive oak component. The regen is partially transitioned into the pole class. There is sparser cover in the valley in the N1/2; most of the NPO-JP occurs there. In order to reflect the two age classes of oak, the canopy records had to be simplified to fit within MiFI limitations. Would have called the BRO regen 5" P-S, the BRO residual L-P and the WO residual L-P.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
White Oak		5	Log	10	105	Witch Hazel		
Northern Pin Oak		4	Pole/Sapling	5	28			
Red Pine		3	Log	14	60			
White Oak		5	Sapling	3				
Bigtooth Aspen		50	Sapling/Pole	4	28			
Red Maple		20	Sapling/Pole	2	28			
Jack Pine		3	Sapling/Pole	4				
Black/Red (Hybrid) Oak		5	Sapling	4	28			
Black/Red (Hybrid) Oak		5	Log	11				
24	4124 - Red with White Oak	Sawtimber Well	31.8	103	81-110	N/A	Mature mixed oak stand with RM and overmature BTA components. NPO on the perimeter is dropping out of the canopy; RM regen is filling in there. On rolling terrain, with steep ground in the west edge.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Red Maple		15	Pole/Log/Sap	7		Witch Hazel		
White Oak		20	Log/Pole	10		Red Maple		
Northern Pin Oak		4	Log/Pole/XLog	11	83			
Red Oak		50	Log/Pole/XLog	13	103			
Red Pine		1	Pole/Log/Sap	8				
Bigtooth Aspen		10	Log	15				
25	500 - Water	Nonstocked	2.9		Unspecified	No	Barker Lake. Rushes on the perimeter.	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																													
<b>26</b>	42120 - Planted Jack Pine	Sapling Well	94.3	34	1-50	N/A	Mature JP stand was final harvested by early 1987 (#011-86), cutting merch stems except for an uncut strip on the N & W edges of Barker Lake. Most of the stand was trenched and planted to JP in 1988 (C72-194), along with RP planted on the hillside east of Barker Lake. A few acres in the SW were not planted but filled in with naturally with JP-NPO; the canopy closure there is 50-75%. Most of the stand's deciduous cover occurs in the south half of the stand.																																													
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<b>27</b>	4130 - Aspen	Poletimber Well	32.2	35	81-110	N/A	O-A-RM stand was final harvested by early 1987 (#011-86), cutting merch stems. Regenerated to aspen with RM-O. The BRO is clean-boled and weeding down to 1-3 stems per stump clump. The NPO has poorer form and tends to occur on the margins by the adjacent JP stand.																																													
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<b>28</b>	310 - Herbaceous Openland	Nonstocked	5.7	0	Unspecified	No	Cleared powerline corridor.																																													
<b>34</b>	3301 - Low Density Deciduous Trees	Nonstocked	2.0	0	Unspecified	4131 - Aspen, Oak	Grassy opening within the April 2008 4-Mile fire perimeter. Scattered BC, NPO and encroaching JP.																																													