



# Compartment Review Presentation

## Grayling Forest Management Unit

Compartment 72184

Entry Year 2026

Acreage: 1,766

County Crawford

Management Area: Camp Grayling

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**Stand Examiner:** Joan Charlebois

### Legal Description:

T26N R04W Sections 19, 20, 21

### Identified Planning Goals:

This compartment is comprised of Hanson Reserve Lands which contain the following deed restrictions: The lands are (1) to be used as a permanent encampment and maneuvering ground for the military, (2) to serve as a game preserve for the breeding and protection of game, and (3) to serve as a forest reserve. The primary goal is to provide for military training while maintaining forest health, productivity, sustainability, species and structural diversity throughout the compartment while meeting the Hanson deed restrictions.

### Soil and topography:

The dominant soil series are Grayling and Graycalm-Grayling sands on rolling to steep terrain. The northwest outwash plains have Rubicon and Croswell sands, grading into the swamp's Tawas and Leafriver mucks.

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

Hanson Reserve Lands were given to the National Guard, DMA by Rasmus Hanson in 1913, with several deed restrictions as outlined under the management objective. These restrictions have tasked the DNR with managing the natural resources on these lands as long as management activities do not conflict with military needs. In addition, hunting is prohibited on these lands.

### Unique Natural Features:

There is the potential for rare plants and animals to be associated with the Lake Margrethe basin, Bear Swamp, and dry upland pine sites.

### Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

### Special Management Designations or Considerations:

This compartment is designated as a Military Special Conservation Area (SCA) and contains part of the fenced Small Arms Ranges and Camp Grayling Cantonment Area. It is also part of the Hanson Military Reserve, with goals and restrictions as noted above.

### Watershed and Fisheries Considerations:

The compartment borders the west side of Lake Margarethe, which is popular for cool water sport fishing and recreational watercraft use.

### Wildlife Habitat Considerations:

Because it is part of the Hanson Refuge, hunting is prohibited. The Bear Swamp (most of it north of the compartment) is a winter deer-yarding area.

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

No known potential exists for commercial metallic mineral production in this part of the state. The closest known sand/gravel pit is less than two miles southeast, which is owned and operated by the DMVA. There is potential for sand & gravel within the compartment, but the DNR has no authority to extract aggregate resources or lease the rights to sand & gravel. The closest oil & gas production, past or present is roughly three miles away. The compartment is within the Camp Grayling reservation and long-term lease area and includes lands deeded to the State Military Board and Hanson grant lands. The State does not control the mineral rights within the compartment, and the mineral rights are classified as non-leasable.

### Vehicle Access:

The compartment is entirely within the fenced Small Arms Range complex. Access within those areas is restricted and managed by Range Control.

### Survey Needs:

None needed

**Recreational Facilities and Opportunities:**

Due to the deed restrictions and fenced ranges, there are no designated recreational facilities, and dispersed use is limited.

**Fire Protection:**

The Camp Grayling Fire Department monitors active ranges for fire starts and conducts initial attack with on-camp resources. The MDNR assists with fire suppression at the military's request and with coordination through Range Control.

**Additional Compartment Information:**

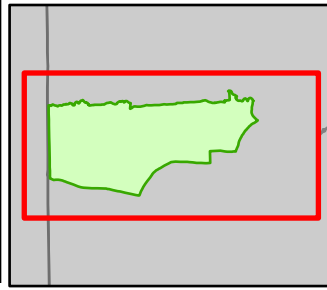
**The following reports from the Inventory are attached:**

- 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

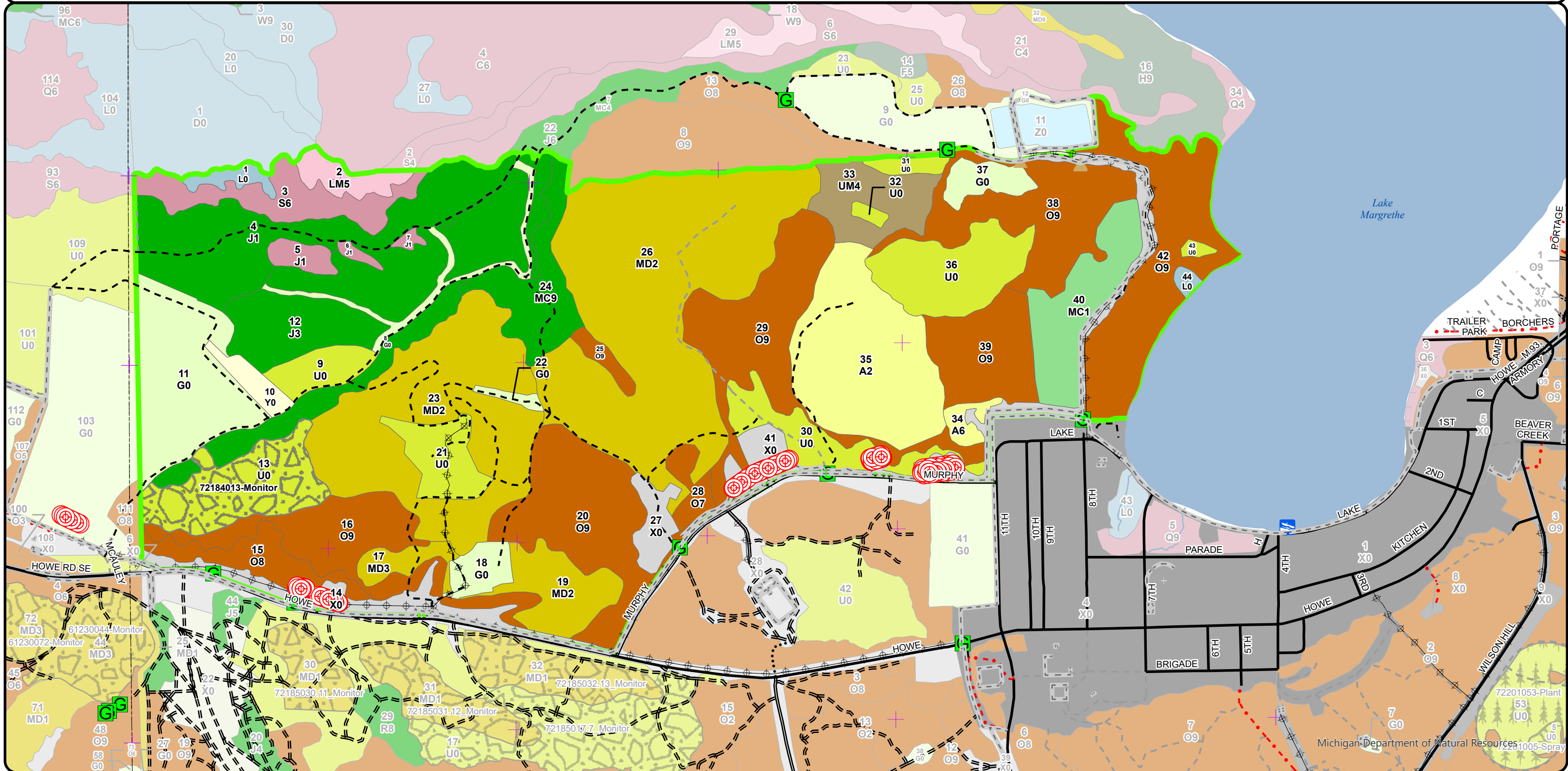


Compartment: 72184  
 T26N, R4W, Sec: 16, 18-21, 29  
 County: Crawford  
 Unit: Grayling  
 Mgmt Area: Camp Grayling  
 YOE: 2026  
 Acres: 1766.1 GIS Calculated  
 Examiner: Joan Charlebois  
 Map Revised: 07/15/2024  
 Map Phase: Web - Post



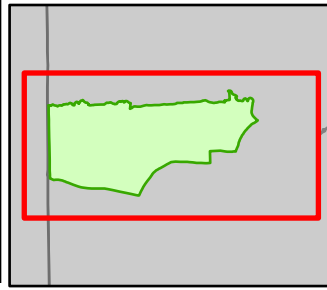
0 0.5 1 Miles

- |                                       |                              |                                 |                                  |
|---------------------------------------|------------------------------|---------------------------------|----------------------------------|
| Berms                                 | County - Gravel Road         | Counties                        | 613 - Lowland Mixed Forest       |
| Gate                                  | Private - Dirt / Gravel Road | Regeneration Survey             | 110 - Low Intensity Urban        |
| Boating Access Site                   | DNR - Management Access      | 412 - Oak Types                 | 310 - Herbaceous Openland        |
| Remonumented Section Corners          | Intermittent Stream          | 413 - Aspen Types               | 330 - Low Density Trees          |
| DNR - Secondary Forest Road           | Lake/Pond                    | 419 - Mixed Upland Deciduous    | 622 - Lowland Shrub              |
| DNR - Forest Access Route             | Perennial River              | 421 - Planted Pines             | 710 - Sand/Soil                  |
| Federal / State Highway               | Lakes and Rivers             | 422 - Natural Pines             | DNR_FORESTRY.camp_grayling_fence |
| Federal / State / County - Paved Road | Powerline                    | 430 - Upland Mixed Forest       | Camp Grayling Firing Point       |
| Federal / State - Dirt / Gravel Road  | Compartment Boundary         | 612 - Lowland Coniferous Forest |                                  |

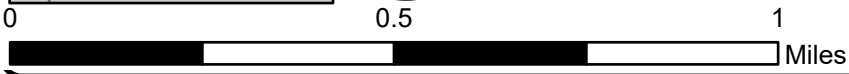




Stand Boundary Map



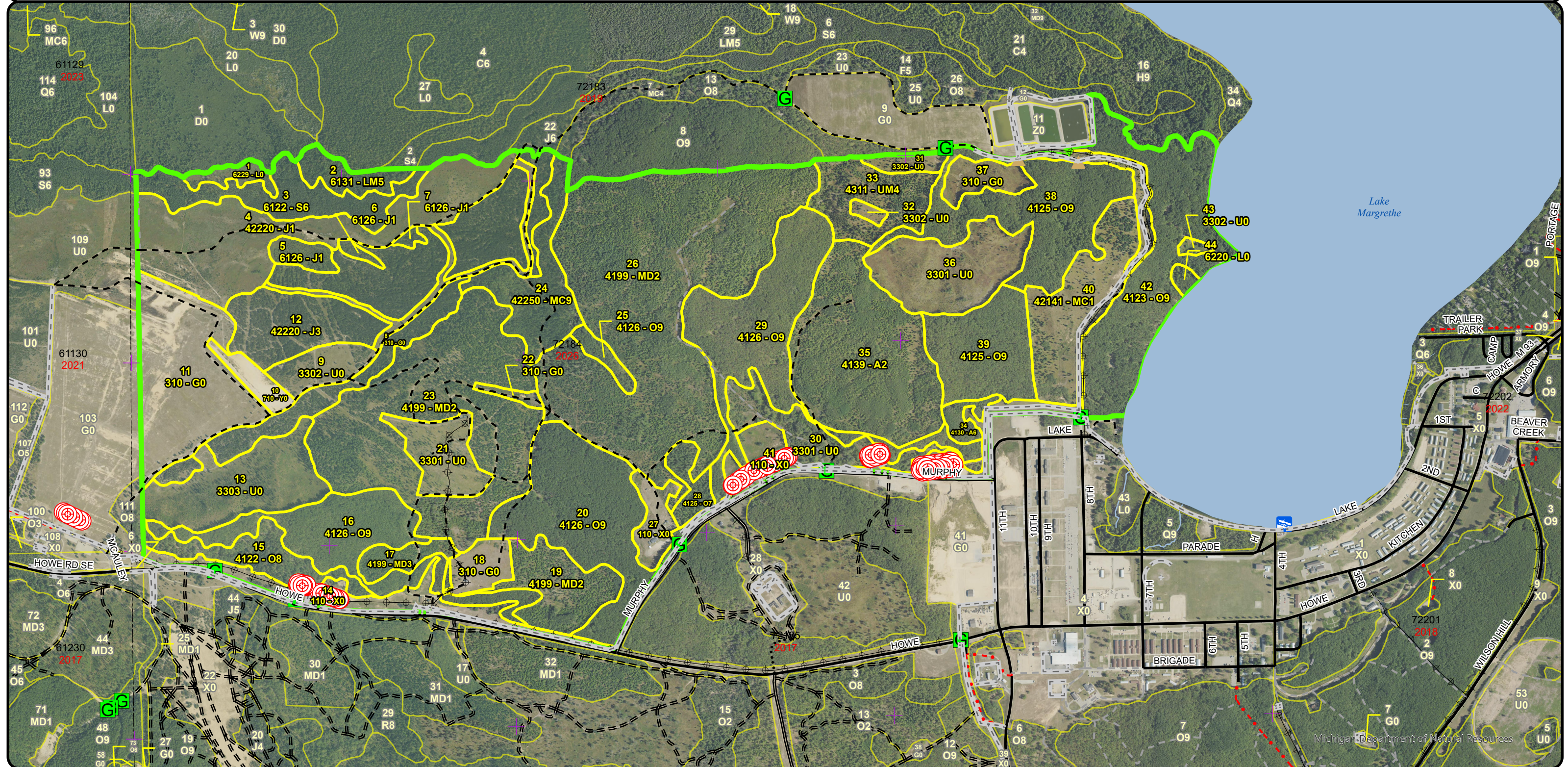
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- Berms
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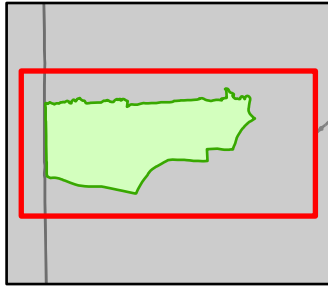
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- 622 - Lowland Shrub
- 710 - Sand/Soil
- State Forests
- DNR\_FORESTRY.camp\_grayling\_fence
- Camp Grayling Firing Point





**Special Conservation Areas  
& Site Conditions Map**

Compartment: 72184  
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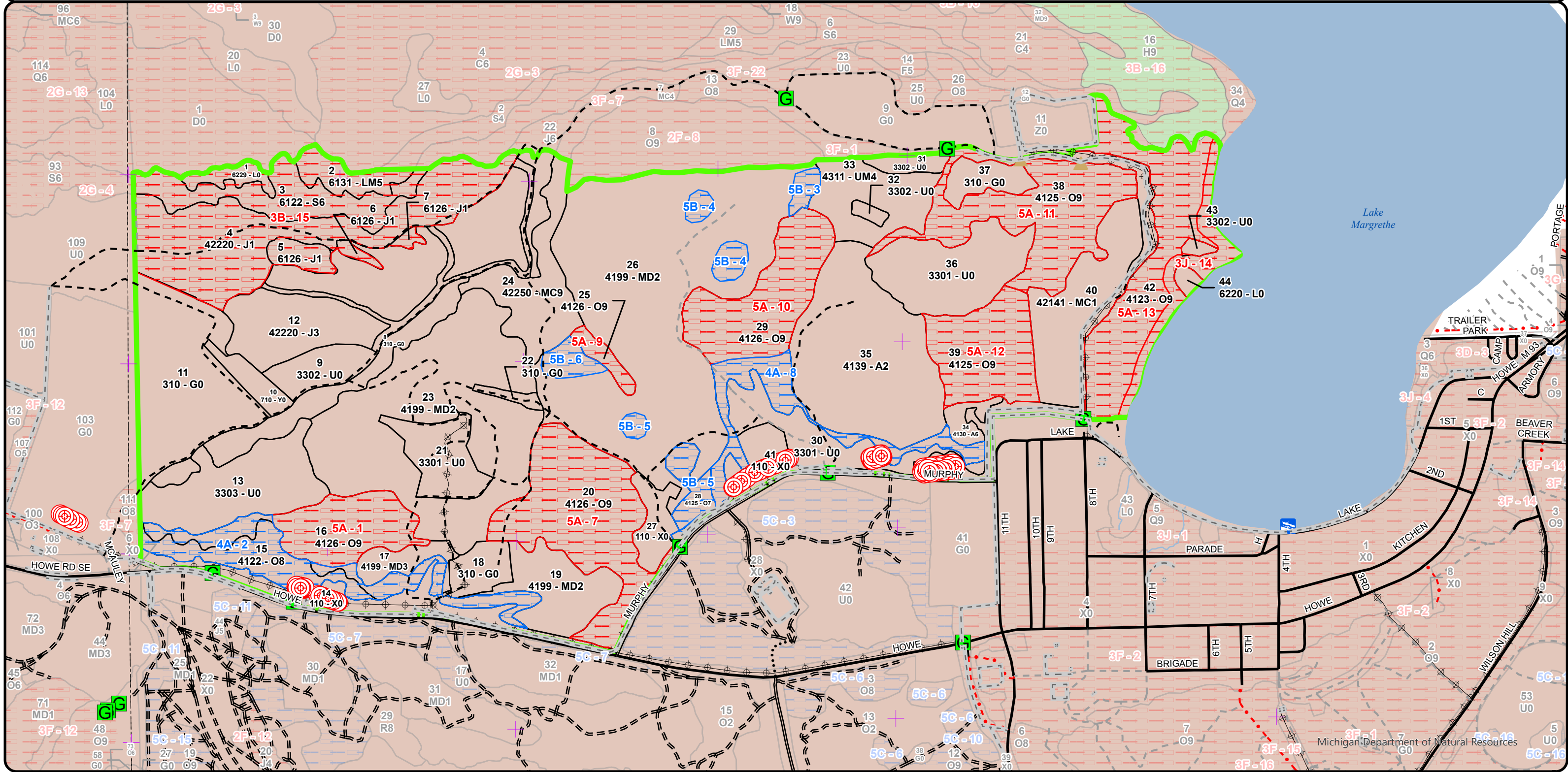
0 0.5 1 Miles

- Berms
- Gate
- Boating Access Site
- Remonumented Section Corners
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State Highway

- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- DNR - Management Access
- Intermittent Stream
- Lake/Pond
- Perennial River

- Lakes and Rivers
- Powerline
- Compartment Boundary
- Counties
- Available w/ Constraints
- Unavailable

- 3J: Water quality / BMPs (stream, river, or lake)
- 5A: Not able to obtain desirable regeneration
- Stand Boundaries
- Type 1 and Type 2 Old Growth
- Research, Development, and Military Lands
- DNR\_FORESTRY.camp\_grayling\_fence
- Camp Grayling Firing Point







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	0	96	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	102
Herbaceous Openland	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114
Jack Pine	0	89	0	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	237
Low-Density Trees	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	175
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13
Lowland Shrub	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	37
Mixed Upland Deciduous	0	0	409	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	409
Natural Mixed Pines	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	37
Oak	0	0	0	0	0	0	0	0	0	0	87	274	88	6	0	0	0	0	455
Planted Mixed Pines	0	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Sand, Soil	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Upland Mixed Forest	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	33
Urban	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92
<b>Total</b>	<b>399</b>	<b>135</b>	<b>505</b>	<b>148</b>	<b>0</b>	<b>6</b>	<b>33</b>	<b>37</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>87</b>	<b>287</b>	<b>88</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1768</b>





# Report 2 – Treatment Summary

Grayling Mgt. Unit

Year of Entry: 2026

Acres of Harvest

Compartment 184

Total Compartment Acres: 1,766

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

## Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	0	0	0	0	0	50	0	0	50	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>50</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:**

13	72184013-Monitor	50.3	3303 - Mixed Low Density Trees	Nonstocked	0	Unspecified	Monitoring	Natural Regen (Re-Inventory)	4319 - Mixed Upland Forest	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</u> Includes a mix of oak, red maple, aspen &amp; pine, with poorly stocked inclusions.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p>Proposed Start Date: 10/1 /2033</p>											

**Total Treatment Acreage Proposed: 50.3**



## Report 4 – Site Conditions

Grayling Mgt. Unit  
Joan Charlebois : Examiner

Compartment: 184  
Year of Entry: 2026

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions				
		With Condition	Not Available		4A	5B	3B	3J	5A
103	103	0	0	Aspen					
114	113	0	0	Herbaceous Openland			0		
237	137	0	100	Jack Pine			100		
175	175	0	0	Low-Density Trees				0	
13	0	0	13	Lowland Mixed Forest			13		
9	3	0	7	Lowland Shrub			7		
37	0	0	37	Lowland Spruce/Fir			37		
408	386	22	0	Mixed Upland Deciduous		22			
37	37	0	0	Natural Mixed Pines		0			
455	0	87	368	Oak	77	10		21	347
46	46	0	0	Planted Mixed Pines					
9	9	0	0	Sand, Soil					
33	33	0	0	Upland Mixed Forest		0			
92	92	0	0	Urban					
1,766	1,133	109	524	Total Forested Acres	77	32	157	21	347
	64%	6%	30%	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	5A: Not able to obtain desirable regeneration	35	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
2	Available	4A: No Markets Available for these Forest Products	48	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Grayling Mgt. Unit  
Joan Charlebois : Examiner

Compartment: 184  
Year of Entry: 2026

3	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Marked-to-leave shelterwood-seed island within the larger clearcut stand. Was not specified as retention.							
4	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Marked-to-leave shelterwood-seed islands within the larger clearcut stand. Was not specified as retention.							
5	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	13	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Marked-to-leave shelterwood-seed islands within the larger clearcut stand. Was not specified as retention.							
6	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Marked-to-leave shelterwood-seed island within the larger clearcut stand. Was not specified as retention.							
7	<b>Unavailable</b>	<b>5A: Not able to obtain desirable regeneration</b>	77	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
8	<b>Available</b>	<b>4A: No Markets Available for these Forest Products</b>	29	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							



## Report 4 – Site Conditions

Grayling Mgt. Unit  
Joan Charlebois : Examiner

Compartment: 184  
Year of Entry: 2026

9	<b>Unavailable</b>	<b>5A: Not able to obtain desirable regeneration</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
10	<b>Unavailable</b>	<b>5A: Not able to obtain desirable regeneration</b>	52	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
11	<b>Unavailable</b>	<b>5A: Not able to obtain desirable regeneration</b>	67	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
12	<b>Unavailable</b>	<b>5A: Not able to obtain desirable regeneration</b>	44	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
13	<b>Unavailable</b>	<b>5A: Not able to obtain desirable regeneration</b>	67	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
14	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	21	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> RMZ along the lake and shoreline wetlands.							

## Report 4 – Site Conditions

Grayling Mgt. Unit

Joan Charlebois : Examiner

Compartment: 184

Year of Entry: 2026

15	Unavailable	3B: Threatened, endangered, and special concern species	157	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> HCVA Dedicated Habitat Area							



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.





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
1	6229 - Mixed lowland shrub	Nonstocked	6.8		Unspecified	No	2012 Range 8 spot fire burned dense black spruce swamp cover and a narrow dry ridge, leaving only scattered spruce and a few xlog WP. JP, spruce & tamarack are seeding in, mostly on the drier ground. Aside from the ridge, the stand is on saturated ground with patches of tag alder, marsh, leatherleaf, sheep laurel, & leatherleaf.			
2	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Medium	13.2	114	1-50	N/A	Marginal mixed E/Q stand on saturated soil has varying cover in immature to overmature RM, black spruce, NWC, paper birch, & supercanopy WP. Understory is predominantly tag alder but there is locally high cover in RM saplings, and scattered black spruce regen. Since last inventory, a cohort of subcanopy RM has recruited into the canopy, shifting the stand's overall size class from log to pole. Carried forward the previous inventory age on the mature RM & the spruce age from stand 6. There are likely multiple age bands present but did not core to confirm.			
		<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>
		White Pine	5	XLog/Log	22		Black Spruce	Low	< 5 feet	Sapling
		Red Maple	50	Pole/Sap/Log	6	114	Michigan Holly	Trace	5 - 10 feet	Tall Shrub
		Black Spruce	25	Pole/Sapling	7	89	Red Maple	Medium	Variable	Sapling
		Northern White Cedar	15	Log/Pole	12		Tag Alder	High	5 - 10 feet	Tall Shrub
3	6122 - Black Spruce	Poletimber Well	36.6	89	51-80	N/A	Spindly black spruce, with JP mixing in along the transition ground margin and occasional WP, tamarack, RM & RP. Best growth is on the drier transition ground. Spruce cover is dense, but not reflected in the BA swings due to the proportion of large sapling material in the canopy. RM is relatively common in the understory. Spot fires from the 2012 Range 8 fire crept through, leaving scattered dead trees. There is a minor older age class in the spruce (113 yrs).			
		<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>
		Black Spruce	90	Pole/Sapling	6	89	Red Maple	Medium	Variable	Sapling
		White Pine	1	XLog/Log	22		Black Spruce	Low	5 - 10 feet	Sapling
		Tamarack	2	Pole/Sapling	6		Leatherleaf	Low	< 5 feet	Tall Shrub
		Jack Pine	7	Pole/Log	8		Sheep Laurel	High	< 5 feet	Tall Shrub
4	42220 - Natural Jack Pine	Sapling Poor	88.6	8	Immature	N/A	Part of the stand burned in 2012. The rest had intact JP cover. Most of the stand was final harvested in fall 2016 (61-610-16-01) except for an area of brushy immature JP on the north edge of Range 8. The stand encompasses a mosaic of upland, transition, and lowland ground. Post-harvest JP regen is patchy (ranging from LDT to J3) but averages within the forested benchmark. Spruce is seeding in along the swamp edge.			
		<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 Maple	1	Sapling	2		Sheep Laurel	High	< 5 feet	Tall Shrub
		Jack Pine	95	Sapling	1	8	Leatherleaf	Low	< 5 feet	Tall Shrub
		Black Spruce	4	Sapling	1		Jack Pine	Low	< 5 feet	Seeding
							Common Lowbush Blueberry	Medium	< 5 feet	Tall Shrub
							Black Cherry	Trace	5 - 10 feet	Tall Shrub
5	6126 - Lowland Jack Pine	Sapling Poor	7.6	28	1-50	N/A	Was within stand 12's harvest, cut 2"+ DBH spring of 1996 (#002-96). On low and transition ground with sheep laurel & leatherleaf. Colonizing JP & spruce has shifted the cover type from treed bog to forested.			
		<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>
		Jack Pine	90	Sapling/Pole	4	28	Leatherleaf	Medium	< 5 feet	Tall Shrub
		Black Spruce	10	Sapling/Pole	2		Sheep Laurel	High	< 5 feet	Tall Shrub
6	6126 - Lowland Jack Pine	Sapling Poor	2.2	28	1-50	N/A	Was within stand 12's harvest, cut 2"+ DBH spring of 1996 (#002-96). On low and transition ground with sheep laurel & leatherleaf. Colonizing JP & spruce has shifted the cover type from treed bog to forested.			
		<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>
		Jack Pine	85	Sapling/Pole	3	28	Leatherleaf	Medium	< 5 feet	Tall Shrub
		Black Spruce	15	Sapling/Pole	2		Sheep Laurel	High	< 5 feet	Tall Shrub



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																								
<b>7</b>	6126 - Lowland Jack Pine	Sapling Poor	1.7	28	1-50	N/A	Was within stand 12's harvest, cut 2"+ DBH spring of 1996 (#002-96). On low and transition ground with sheep laurel & leatherleaf. Colonizing JP & spruce has shifted the cover type from treed bog to forested.																																								
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<b>8</b>	310 - Herbaceous Openland	Nonstocked	12.7	0	Unspecified	No	Mowed fuelbreaks with occasional NPO & RP.																																								
<b>9</b>	3302 - Low Density Conifer Trees	Nonstocked	16.0		Unspecified	No	Was part of stand 12, set back by burning. JP & NPO have been recolonizing the burn area, part of which is now being maintained open by mowing.																																								
<b>10</b>	710 - Sand, Soil	Nonstocked	8.9	0	Unspecified	No	Down range sand berm.																																								
<b>11</b>	310 - Herbaceous Openland	Nonstocked	72.9		Unspecified	No	Range 8 fan. Mowed opening with NPO, BC & JP scattered along the perimeter.																																								
<b>12</b>	42220 - Natural Jack Pine	Sapling Well	136.4	28	1-50	N/A	Natural JP stand was cut 2"+ DBH in spring 1996 (#002-96) except for two red-line excluded patches of sparse JP in the far SW & NE. Regenerated to dense JP cover with NPO, WO and traces of RP, WP & RM. Stand occupies the outwash plain between the Bear Swamp and the oak hills. Most of the oak occurs on the stand's SE edge bordering the hills. There is some transition ground on the NW edge by the treed bog stands. Cleared fuelbreaks are being maintained open through mowing. The widest fuelbreak was split out as stand 20.																																								
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments									
13	3303 - Mixed Low Density Trees	Nonstocked	50.3	0	Unspecified	4191 - Mixed Upland Deciduous with Conifer	This north half of parent stand 16 was final harvested by Jan 2020 (#618-16), cutting trees 2"+ DBH except RP & WP. Cover does not yet meet the Forested benchmark because the seedling class (<3' tall) cannot be counted toward canopy cover. The stand has a mix of residual and regen from the cut. Most of the residual is pockets of RP poles. The flats on the north side have RP & JP seeding in; the oak regen there is not secure, generally below 3' tall. Regen on the hilltop in the south end is seeing the heaviest deer browse. Browse is lightest on the steep hillside; the RM, BTA & stump-origin oak is recruiting there. The stand's seed-origin WO is unlikely to recruit due to repeated browsing. On Grayling sands.									
								Sub-Canopy Species	Density	Avg. Height	Size					
								Red Pine	Trace	>20 feet	Log					
								White Oak	Trace	< 5 feet	Sapling					
								Jack Pine	Trace	< 5 feet	Seeding					
								Witch Hazel	Low	< 5 feet	Tall Shrub					
								Red Pine	Trace	< 5 feet	Seeding					
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								Bigtooth Aspen	Low	5 - 10 feet	Sapling					
White Oak	Low	< 5 feet	Seeding													
Red Maple	Low	5 - 10 feet	Sapling													
14	110 - Low Intensity Urban	Nonstocked	31.1		Unspecified	No	Range facilities and cleared corridor along the fence, maintained open through mowing, with scattered oak and pine.									
15	4122 - Oak, Pine	Sawtimber Medium	23.8	111	51-80	N/A	Stand occupies a dry south aspect overlooking Howe Rd and range facilities. On Grayling sands. Terrain becomes increasingly steep moving west. The oak canopy has open-grown form. Cover varies with slope position: BRO occurs mostly on the hilltop, WO increases moving downslope, and the NPO is concentrated on the south edge flats. JP & RP increase on the lower slopes also. There is full cover in advanced oak regen under the JP in the middle of the stand but only trace to low amounts under the oak canopy. The oldest JP & NPO have been dropping out. The NPO canopy is now represented more by the younger age class of pole-log NPO than by the mature log-xlog class. The canopy is dotted with openings from ground-disturbing activity before the range was fenced in.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Jack Pine	20	Pole	8	62	Witch Hazel	Trace	5 - 10 feet	Tall Shrub
								Northern Pin Oak	20	Pole/Log/XLog	8		White Oak	Medium	5 - 10 feet	Sapling
								Black/Red (Hybrid) Oak	20	Log/XLog	16		Northern Pin Oak	Low	Variable	Sapling
								Red Maple	5	Pole/Sapling	6		Jack Pine	Low	Variable	Sapling
								Red Pine	10	Log/Pole	13		Black Cherry	Trace	Variable	Tall Shrub
								White Oak	25	Log/Pole/XLog	13	111	Red Pine	Trace	Variable	Sapling
								16	4126 - White, Black, N. Pin Oak	Sawtimber Well	58.9	111	111-140	N/A	Fair-quality BRO, with WO, RM, sub-acre BTA clones, and RP of all sizes. The BRO has more in the pole class than is typical in the compartment. The WO is heavy to narrow-crowned poles. Most of the stand is on Grayling sands, with a few acres of Graycalm-Grayling sands in the NE. The most-suppressed oak poles are dropping out. On the stand's sheltered north aspect, the proportion in BRO increases. WO increases on the drier south aspects, where the tree cover is shorter in general. Most of the xlog oak is on the south margin but there wasn't enough representation across the stand to split the size class to xlog for either species. Little of the RM is seen from above. Super-canopy RP are scattered across the stand with localized pockets of RP established around them. Aside from the RP regen, there is very little in the understory that has escaped being browsed.	
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Northern Pin Oak	1	Log/XLog	17		White Oak	Trace	< 5 feet	Seeding
								Red Maple	7	Pole/Sapling	6		Red Pine	Trace	Variable	Sapling
								Black/Red (Hybrid) Oak	60	Log/Pole	11	111	Red Oak	Low	Variable	Sapling
Bigtooth Aspen	3	Log	12													
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White Oak	25	Pole/Log	9													





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																										
17	4199 - Other Mixed Upland Deciduous	Sapling Well	11.0	15	Immature	N/A	Mature oak cover was cut Feb 2009 (#635-07), merch stems except RP & WP. Most of the stand is on Graycalm-Grayling sands. Regenerated to RM, BTA, and a secure oak component. The BRO regen is stump-origin and competitive with the RM-BTA. The WO is more in single-stems than stump-origin, is shorter yet still secure from deer browse. There are traces of residual pole RM & WO. RP residual from the cut is mainly in the SE arm. Last YOE inventory noted only light browse on the regen in this stand, while the adjacent mature oak stands had heavy deer use focused on the previous fall's good acorn crop.																																																										
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18	310 - Herbaceous Openland	Nonstocked	12.3	0	Unspecified	No	Was part of the Range 5 Oak harvest, cut Feb 2009 (#635-07). Subsequently maintained open around a range observation tower. Residual RP are scattered within the west edge.																																																										
19	4199 - Other Mixed Upland Deciduous	Sapling Medium	31.7	15	Immature	N/A	Mature oak cover was cut Feb 2009 (#635-07), merch stems except RP-WP and an acre retention island (in the SE). Most of the stand is on Graycalm-Grayling sands. Regen from the cut includes RM, oak and aspen, with scattered residual RP, WP, and pole RM. The stump-origin oak (mainly BRO) is competitive with the RM-BTA. The WO is mainly single-stem origin, is shorter (7-10' tall) yet secure, and occurs in dense patches in the S1/3 of the stand; most of the BTA occurs there also. The S1/3 has 75-100% canopy closure, the NE & NW are in the 50-75% range, and the middle of the stand drops into the 25-50% category where the pre-harvest canopy had been gappy. The proportion in oak vs RM increases in those lower-stocked areas. Last YOE inventory noted only light browse on the regen in this stand, while the adjacent mature oak stands had heavy deer use focused on the previous fall's good acorn crop.																																																										
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20	4126 - White, Black, N. Pin Oak	Sawtimber Well	77.4	107	111-140	N/A	Mixed oak stand on gently-rolling terrain. The best site quality is in the NE on Graycalm-Grayling sands, and along Murphy Road. Moving west, heights & diameters decrease on the Grayling sands. The proportion in WO increases on the drier south aspects. The WO is heavy to narrow-crowned poles. The most suppressed oak poles have been dropping out. The traces of surviving NPO are on the perimeter flats and interior valleys. Small clumps of overmature BTA are scattered across the stand. The RM is suppressed, with more representation by BA than canopy % due to low crown position. There are traces of RP & WP in the canopy & subcanopy. Very open below except for witch hazel and occasional RM, WP & RP saplings. The WO seedling layer is heavily browsed.																																																										
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21	3301 - Low Density Deciduous Trees	Nonstocked	23.8	0	Unspecified	No	Part of a larger area cut fall 2009 to Jan 2010 (#623-06), merch except RP, WP & green-marked trees. Contract was modified to facilitate ISBC range construction, with additional oak & RM marked to leave. This NF portion on the hilltop contains most of the ISBC developments. The area is maintained open through mowing. Residual RM, oak & RP are scattered across the opening.																																																										
22	310 - Herbaceous Openland	Nonstocked	3.1	0	Unspecified	No	This former decking area was part of stand 23's 2010 harvest. Is being maintained open through mowing around the scattered RP and patches of oak & BC regen																																																										



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**23** 4199 - Other Mixed Upland Deciduous Sapling Medium 137.3 14 1-50 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	10	Pole/Sap/Log	8	68
Red Maple	49	Sapling/Pole	2	14
Black/Red (Hybrid) Oak	5	Log	13	111
White Oak	15	Sapling	1	
White Oak	5	Log	11	116
Bigtooth Aspen	5	Sapling	3	14
Black/Red (Hybrid) Oak	10	Sapling	3	14
White Pine	1	Log/Pole/Sap	11	

Sub-Canopy Species	Density	Avg. Height	Size
Witch Hazel	Low	5 - 10 feet	Tall Shrub
Black Cherry	Low	Variable	Tall Shrub
Red Maple	Low	< 5 feet	Seeding
White Oak	Low	< 5 feet	Seeding

Mature oak cover was cut by Jan 2010 (#623-06), merch except RP, WP & green-marked trees. Contract was modified to facilitate ISBC range construction, with additional oak & RM marked to leave across the stand (the RM residual had to be merged into the 14-year old sapling canopy record due to a MiFI limitation). Three islands in the SW (~6 ac. total) had 30 BA in oak marked-to-leave already. The residual oak saw are epicormic branching. The residual RM poles have been top-dying and basal sprouting. Three acres on the S edge were cut in Feb 2009 (#635-07). Regen from the cut is the featured canopy, with residual RP-O-RM-WP occupying a super-canopy layer above it. The regen is primarily RM, with good oak and minor BTA components. The stump-origin oak is competitive with the RM. The WO sapling component is mostly single-stem in origin, shorter (6-10' tall) but secure, and growing in dense patches. The minor WO & RM seedling class is heavily browsed and unlikely to recruit. Terrain is hilly, on Grayling sands, with steep slopes in the NW, and a few acres of Graycalm-Grayling sands on the south edge. ISBC course roads & targets systems are on the hilltop. Regen has been set back within small fires off the course. Cover is also less dense on the east side's lower slopes but the proportion in oak vs RM increases there. Regen passes across 70% of the stand to the M.O. of RM-O-A with pine.

**24** 42250 - Pine, Oak Sawtimber Well 36.6 62 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	1	Pole/Sapling	6	
Black/Red (Hybrid) Oak	5	Log/XLog	14	
White Oak	20	Log/Pole/XLog	11	105
White Pine	5	Pole/Log	8	
Jack Pine	9	Pole/Log/Sap	7	
Red Pine	55	Pole/Log/XLog	9	62
Northern Pin Oak	5	Log/Pole	12	101

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Medium	Variable	Sapling
Red Pine	Medium	Variable	Sapling
White Oak	Trace	Variable	Sapling

Mixed pine-oak stand in a shallow valley, mostly on Grayling sands. Fire-scarred legacy RP seeded in the stand's core cover. Scattered canopy WP and locally dense WP understory cover established from a couple of xxlog WP. The NPO has largely dropped out of the canopy. WO increases moving upslope, with BRO on the top edge. The JP is mostly on the stand's NW edge against the outwash plains. Recruitment of RP & WP from the understory has been off-setting losses in the NPO.

**25** 4126 - White, Black, N. Pin Oak Sawtimber Well 6.0 130 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Pole/Sapling	6	
White Oak	35	Log/Pole	11	
Red Pine	1	Pole/Log/Sap	8	
Black/Red (Hybrid) Oak	53	Log/XLog	14	130
White Pine	1	Pole/Sapling	6	

Sub-Canopy Species	Density	Avg. Height	Size
White Oak	Low	5 - 10 feet	Sapling
White Oak	Medium	< 5 feet	Seeding

Narrow island of oak on an east aspect, surrounded by stand 26's 2010 harvest. Individual dead stems (not pocket mortality) have been wind-throwing. The oak cored 20 years older than expected for this area. On Grayling sands.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																															
<b>26</b>	4199 - Other Mixed Upland Deciduous	Sapling Medium	228.3	14	1-50	N/A	Mature oak cover was harvested by late winter 2010 (#623-06), cutting merch stems except RP-WP and green-marked oak (22 acres with 30 BA oak saw residual in 5 islands, merged back into the parent stand). The residual oak are epicormic branching. The residual RM poles have been top-dying and basal sprouting; that pole material had to be merged into the 14-year old sapling canopy record due to a MiFI limitation. RP-WP of all sizes occur scattered across the stand and in dense pockets in the W & N-center. Regen from the cut is the featured canopy and includes variable distribution in oak, RM & BTA. The stump-origin oak is competitive with the RM-A. The single-stem origin oak (mostly WO) is shorter (6-10' tall) but secure, and occurs in dense patches. Samples of that WO also aged to the harvest. The minor WO seedling class is heavily browsed and unlikely to recruit. BTA increases moving upslope to the east. The most concentrated RM cover is on the upper slopes and hilltop in the NE (on Graycalm-Grayling sands). The lower slopes to the W & S are on Grayling sands. NPO mixes in with the WO on the lower south aspects. Canopy closure is close to the 75-100% category. Regen passes to the M-O-A-pine objective. 2014 inventory of the regenerating stand noted that deer activity away from the swamp was very light during that deep-snow winter.																																																															
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<b>27</b>	110 - Low Intensity Urban	Nonstocked	12.9		Unspecified	No	UAC range facilities and improvements.																																																															
<b>28</b>	4125 - Black, N. Pin Oak	Sawtimber Poor	10.0	106	1-50	N/A	This is the largest of the islands that were shelterwood harvested within stand 26 by Jan 2010 (#623-06), cutting merch stems except RP, WP & green-marked trees, cruised residual 30 BA. Canopy is mature BRO & WO with traces of WP-RP. Regen from the cut includes BTA, dense pockets of single-stem WO, and stump-origin RM, BRO & WO. Aside from within a small burned area, the regen is well-established and secure. The other smaller shelterwood islands are inclusions within parent stand 26. On Grayling sands.																																																															
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<b>29</b>	4126 - White, Black, N. Pin Oak	Sawtimber Well	81.0	110	111-140	N/A	Hybridized BRO, with WO, widely-scattered sub-acres patches of overmature BTA, and suppressed-intermediate RM. Little of that RM is seen from above. The WO has a saw component but it is heavier to small-crowned poles. The most suppressed oak poles have been dropping out. Open below with traces of WP, and localized RP regen around the scattered legacy RP. The stand has steep terrain at the north end, then slopes gradually to the south. Tree quality is slightly better on the hilltop and sheltered north aspect (on the Graycalm-Grayling sands). Stocking decreases and trees are shorter on the dry south aspect and Grayling sands; epicormic branching and deadwood in the canopy are common. In the SW & SE peninsulas behind the ranges, canopy closure drops to 50-75%, tree form is more open-grown, and most of the xlog oak (including traces of NPO) occurs there.																																																															
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<b>30</b>	3301 - Low Density Deciduous Trees	Nonstocked	28.1		Unspecified	No	Disturbed area behind ranges. BC with scattered open-grown oak, patches of immature RM & NPO, and traces of RP-WP. Strips maintained open through mowing.																																																															





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
31	3302 - Low Density Conifer Trees	Nonstocked	6.3	0	Unspecified	No	Was part of stand 33's harvest, cut merch except RP-WP by Jan 2011 (#623-06). Deer browse here on the flats by the spray fields largely eliminated regen from the cut, leaving only scattered residual pole-sapling WP, RP, JP, RM & WO cover that hasn't met the forested benchmark. E1/3 was used as a landing for stand 33's harvest and later, for stand 37's.	
32	3302 - Low Density Conifer Trees	Nonstocked	2.4	0	Unspecified	No	Was part of stand 33's harvest, cut merch except RP-WP by Jan 2011 (#623-06). Cover on this exposed south aspect of Thompson Hill was lower pre-harvest and has been slow to fill in. There is scattered stump-origin RM-O regen from the cut and residual pole-sapling WP-RP.	
33	4311 - Pine, Aspen Mix	Poletimber Poor	32.7	50	1-50	N/A	Was part of stand 26's harvest, cut merch except RP-WP by Jan 2011 (#623-06). The 2.5 acre RP plantation in the SW was thinned to 90 BA at the same time. Cover on this rolling to very steep terrain was lower pre-harvest, and meets the forested benchmark now through a combination of residual and regen from the cut. The plantation represents most of the stand's RP (PI age 77), but there are a few super-canopy RP in the SE and sapling RP scattered across the stand. There is dense WP cover in the SE, with scattered stems elsewhere. Most of the BTA established on the steep north aspects. Secure oak regen increases in the W1/2. Stump-origin RM regen occurs throughout, along with scattered residual poles. On Graycalm-Grayling sands.	
		<b>Canopy Species</b>	<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>		
		Red Maple	20	Sapling/Pole	2			
		Black/Red (Hybrid) Oak	5	Sapling	3	14		
		White Pine	25	Pole/Sap/Log	7	50		
		White Oak	5	Sapling/Pole	3			
		Red Pine	25	Log/Pole/Sap	11	77		
		Bigtooth Aspen	20	Sapling	2	14		
		<b>Sub-Canopy Species</b>	<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>			
		Witch Hazel	Trace	5 - 10 feet	Tall Shrub			
34	4130 - Aspen	Poletimber Well	6.4	47	141-170	N/A	Hardwoods were cut merch in 1977 (#015-76) for a proposed sand pit expansion. Regen from the cut is now dense BTA pole cover with RM & a minor but competitive oak component. The pole BRO is vigorous, right up there with the aspen, and many of the stump-clumps have weeded down to two main stems. The cut left scattered residual oak that are now saw-sized. Aspen on the edge of small openings have shifted into the saw class. Former disturbed ground in those openings, otherwise the stand is on Graycalm-Grayling sands.	
		<b>Canopy Species</b>	<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>		
		White Oak	3	Log/Pole	10			
		Bigtooth Aspen	70	Pole/Log	8	47		
		Red Maple	20	Pole/Sapling	5	47		
		Black/Red (Hybrid) Oak	7	Pole/Sap/Log	7			
		<b>Sub-Canopy Species</b>	<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>			
		Witch Hazel	Trace	5 - 10 feet	Tall Shrub			
35	4139 - Aspen, Mixed Deciduous	Sapling Medium	96.1	14	Immature	N/A	The south 2/3rds of the stand was cut by spring 2010, the north 1/3rd by Jan 2011 (#623-06), merch except RP & WP. Regen is predominantly BTA & stump-origin RM, with a minor but competitive stump-origin oak component. Residual from the cut includes small pole RM & WO, and widely-scattered legacy RP. Top-mortality and basal sprouting is common in the residual RM. Most of the WO poles have died. Canopy closure ranges from 75-100% in the BTA clones, 50-75% where RM predominates, and 25-50% in the valleys where the proportion in oak increases. Terrain starts on a hilltop in the NE, then slopes down to the N, W & S, on Graycalm-Grayling sands.	
		<b>Canopy Species</b>	<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>		
		Red Maple	35	Sapling/Pole	2	14		
		White Oak	3	Sapling	3	14		
		Red Pine	1	Sapling/Pole/Log	3			
		Bigtooth Aspen	50	Sapling	2	14		
		Black/Red (Hybrid) Oak	10	Sapling	3	14		
		White Pine	1	Pole/Sapling	7			
		<b>Sub-Canopy Species</b>	<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>			
		Black Cherry	Low	5 - 10 feet	Tall Shrub			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments									
36	3301 - Low Density Deciduous Trees	Nonstocked	46.4	0	Unspecified	4199 - Other Mixed Upland Deciduous	This portion of the larger stand 38 was final harvested by January 2020 (#638-18), cutting stems 2"+ DBH except pine and sub-merch A-O from the 1997 thinning. Residual 27-year old RM & BTA regen from the thinning occurs in pockets; note that the RM canopy record for that component is Sapling-sized but had to be called Pole-sized in order to overcome a Mifi "rule" that prevents listing the same species & size class in separate records, even if they belong to entirely different age classes. Residual pole-sap RP & WP increase in the north. Regen from the 2020 harvest is entirely RM. Some of it is still in the seedling height range due to heavy browse. Most of it is recruiting, with deer damage limited to side-pruning the outer sprouts in the stump-clump, allowing one or two interior stems to shoot up. No live oak regen was encountered. Less than 20% of the cut oak stumps attempted to sprout. Those that did sprouted weakly, were browsed, & died before getting above a foot tall. A lot of deer pellets throughout. Failed natural regen survey to M.O. of oak w/ RM-A-pine. Terrain starts on the hilltop in the south and slopes down to the north, on Graycalm-Grayling sands.									
								Sub-Canopy Species	Density	Avg. Height	Size					
								Bigtooth Aspen	Trace	>20 feet	Sapling					
								White Pine	Trace	>20 feet	Pole					
								Red Maple	Low	< 5 feet	Seeding					
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								Red Pine	Trace	Variable	Sapling					
								White Pine	Trace	Variable	Sapling					
Red Maple	Low	5 - 10 feet	Sapling													
Red Pine	Trace	>20 feet	Pole													
37	310 - Herbaceous Openland	Nonstocked	12.5	0	Unspecified	4199 - Other Mixed Upland Deciduous	This portion of the larger stand 38 was final harvested by January 2020 (#638-18), cutting stems 2"+ DBH except pine and sub-merch A-O from the 1997 thinning. There are only traces of 27 year old residual regen from the thinning along with scattered sap-pole WP. Almost none of the oak stumps sprouted; those that did sprouted weakly & died. Only traces of RM from the 2020 harvest escaped browse on the steepest part of the hill. Most of the RM has been browse-killed; surviving seedling-height RM is not likely to recruit. The stand occupies a steep north aspect and the flats by the spray field, on Graycalm-Grayling sands.									
								Sub-Canopy Species	Density	Avg. Height	Size					
								White Pine	Low	Variable	Sapling					
								Red Maple	Trace	< 5 feet	Seeding					
								White Pine	Trace	>20 feet	Pole					
Red Maple	Trace	>20 feet	Sapling													
38	4125 - Black, N. Pin Oak	Sawtimber Well	66.5	110	81-110	N/A	Mixed oak stand was thinned in 1997 (#004-96) by removing only the A-RM-RP (cruised residual 85 BA). Minimal growth response to the thinning was noted last YOE. Epicormic branching and dead wood in the canopy are common. The most suppressed oak poles have been dropping out. Regen from the cut is stump-origin RM, locally full BTA in the east, and WP in the north. Terrain is rolling to steep, on Graycalm-Grayling sands.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Red Maple	2	Pole	6		Red Maple	Medium	>20 feet	Sapling
								White Oak	13	Pole/Log	9		Bigtooth Aspen	Low	>20 feet	Sapling
								Black/Red (Hybrid) Oak	85	Log/Pole	11	110	White Pine	Low	Variable	Sapling
								39	4125 - Black, N. Pin Oak	Sawtimber Well	43.6	110	111-140	N/A	BRO stand with WO, overmature BTA, & largely-suppressed RM. The largest BTA clone is in the SE; smaller clones are scattered interior. The WO tend to be narrow-crowned poles. The most suppressed oak have been dropping out. There is a minor xlog oak component but not enough to split the size class to include it. The canopy dominants may withstand release but the typical codominant oak is small-crowned, epicormic branching, with increasing dead wood up top. Terrain starts on a hilltop in the NW and slopes down to the S & E, on Graycalm-Grayling sands. The NW 7 acres were part of stand 38's 1997 species-removal harvest; the recorded RM subcanopy & traces of BTA are from that cut. The stand's SW edge picks up some 47-year old A-RM from stand 34's harvest.	
																Canopy Species
Black/Red (Hybrid) Oak	75	Log/Pole	13	110	Red Maple	Low	>20 feet									Sapling
Red Maple	3	Pole/Sap/Log	6													
Bigtooth Aspen	15	Log/Pole	11													
White Oak	7	Pole/Log	9													



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																										
<b>40</b>	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Poor	45.7	5	Immature	N/A	Mature oak stand was final harvested by Jan 2011 (#623-06), cutting merch stems except RP & WP. Residual from the cut includes widely-scattered super canopy pine, pole-sapling WP & RP (most in N1/3 of stand), 27 year old RM in the E1/2 from a 1997 thinning, and scattered oak poles. The stand occupies an east aspect overlooking the lake. Aside from small patches of BTA that recruited in the stand's SW, the 2011 regen was heavily browsed. 30 acres with the sparsest cover were trenched in 2016 (C72-781) & planted to RP in April 2017. Yr 1 regen survey in Oct 2018 found extensive deer browse on the planted RP, with 78% mortality. Re-planted w/ top-pruned 4-0 bareroot RP in May 2019. Yr 1 survey (DN) of re-plant found 30.3% mortality (669 tpa) & 91% FTG. Re-inventory found a majority of the planted RP on the hillsides with little or no browse. There was intermittent browse on the west edge by the tree line. Heavy browse was still occurring near the range fence on the east side, & on 3 acres on the flats in the SE; those areas with high seedling mortality also coincide with the Grayling sands. Uphill on the Graycalm-Grayling sands, the subcanopy RP that is just under 3' appears likely to recruit into the canopy's sapling class. The M.O. of variable stocking in RM-A-O and natural & planted pine has been met across 70% of the treatment area, and additional replanting is not recommended. FTP is complete.																																										
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Red Pine	Medium	< 5 feet	Seeding																																														
<b>41</b>	110 - Low Intensity Urban	Nonstocked	47.8	0	Unspecified	No	Cleared road & utilities corridors and range facilities within the fence. Maintained open through mowing, with scattered oak, pine & cherry.																																										
<b>42</b>	4123 - Red Oak	Sawtimber Well	87.8	128	111-140	N/A	Mature oak stand occupies rolling terrain that slopes down to the Bear Swamp and Lake Margrethe. Grayling sand is the typical upland soil. Canopy is primarily BRO, with WO, sub-acre overmature BTA clones, & suppressed RM. The most suppressed oak poles have been dying out. Epicormic branching and increasing deadwood are common in the oak canopy. The BTA is also declining. Scattered super-canopy WP (mostly along the lake) have established patches of dense WP cover, some of it recordable in the canopy. Full WP understory cover in the stand's N1/2 decreases to low moving south, averages medium overall. Minor branch flagging in the densely-stocked WP regen. The stand has low ground inclusions by the Bear Swamp, on the north edge of Little Bear Point, and around stand 44; WP & traces of hemlock, cedar and paper birch occur there. The Rasmus Run fitness trail loops through the S1/2 of the stand.																																										
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<b>43</b>	3302 - Low Density Conifer Trees	Nonstocked	1.9		Unspecified	No	Frost pocket opening that has slowly been filling in with WP.																																										
<b>44</b>	6220 - Alder/willow	Nonstocked	2.6		Unspecified	No	Lowland shrub wetland that ties into the Lake Margrethe shoreline. Tag alder with scattered WP, NWC & black spruce.																																										