

# Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61230

Entry Year: 2027

Acreage: 1,910

County: Kalkaska

Management Area: Camp Grayling

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**Stand Examiner:** Steve Crigier

**Legal Description:**

T26N R5W Sections 25, 26, and 27

**Identified Planning Goals:**

This compartment is heavily used by Camp Grayling for training. There are several training areas and various infrastructure throughout the compartment. Much of the other area is heavily used for in-woods training so some level of canopy cover is desired. As such, managing even-age cover types by a typical clearcut with 2" spec is not always desirable. Much of the oak resource in this compartment is, however, reaching maturity and showing signs of decline and/or mortality. In addition, deer populations seem unusually high which will cause additional challenges to regenerating oak. Many cuts completed since the last inventory have started to help balance the oak age classes and might shift cover types from a pure oak stand to upland mixed deciduous stands. Treatments in this year of entry should further attempt to balance age classes and develop oak regeneration while accommodating military training needs.

**Soil and topography:**

Most of the compartment is Grayling sand with lesser amounts of Croswell sand and Au Gres sand in the northwestern corner. The seeps and springs in Section 27 are on Au Sable-Bowstring mucks. The terrain in this compartment is generally flat in the northwestern part and hillier farther south and east. Some of the hills are large enough to be named: Smith Hill, Esler Hill, Grube Hill, Lamb Hill and Baker Hill.

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

These three sections are all State-owned land with the exception of one 40-acre parcel: the NWNW of Section 27. This land is administered by the Michigan Department of Military and Veterans Affairs, which has a timber management agreement with the Forest Resources Division. This arrangement is referred to as Military Board Land. Other Military Board Land surrounds this compartment to the north, east and south. West of the compartment, there are numerous year-round and seasonal dwellings along Portage Creek and King Roads and the Manistee River corridor. Several large underground pipelines run through a single north-south corridor in Section 26.

**Unique Natural Features:**

Stand 33 near the junction of Portage Creek and King Roads in Section 27 contains a large area of springs and seeps that converge to form Spring Creek, a small tributary of the Manistee River. There are a couple of small kettle depressions in Section 26, one of which holds water and is known as Kings Pond. There are no records of threatened or endangered species within the compartment although there is potential for Massasauga rattlesnake.

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

There is a record of an archaeological site(s) in Section 26.

**Special Management Designations or Considerations:**

The entire compartment is Military Board Land. As a tributary of the Manistee River, Spring Creek is protected by Natural Rivers designation.

**Watershed and Fisheries Considerations:**

The headwaters of Spring Creek originate in the southwest corner of Section 27. Spring Creek is a small tributary of the Manistee River, with naturally reproducing populations of brown and brook trout.

**Wildlife Habitat Considerations:**

Featured wildlife species for this management area include: American woodcock, Eastern massasauga rattlesnake, pileated woodpecker, red-headed woodpecker, ruffed grouse, snowshoe hare, wild turkey and white-tailed deer. Some of the most significant wildlife management issues will be maintenance of young forest and large open grassland complexes, the retention of large, over-mature trees and snags and the maintenance and expansion of hard mast and mesic conifer components. [To be edited by WLD.]

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

In this compartment, the State only has surface rights in Section 26 and the NE1/4 of Section 27. Surface sediments consist

of ice-contact and glacial outwash sand and gravel and postglacial alluvium and dune sand. The glacial drift thickness varies between 200 and 600 feet. Beneath the glacial drift are the Mississippian Marshall Sandstone and Coldwater Shale. The Marshall was previously used as a building stone. No gravel pits are located in the area, but there should be potential on the uplands. The compartment is located 2-3 miles north of the Garfield 8 and Beaver Creek fields, which both produce oil from multiple zones within the Devonian Detroit River Group and gas from the Ordovician PdC. There are currently pending leases in Section 27.

#### **Vehicle Access:**

There is a rather well-developed road network throughout the compartment although access to some areas is restricted by the military. Howe Road (open year-round) runs along the northern edge of the compartment. A "tank trail" for military training runs more-or-less parallel to Howe Road through Section 27, but the military does not train much with tracked vehicles anymore.

#### **Survey Needs:**

There are no survey needs at this time. Corners on the private property boundary were established since the last inventory.

#### **Recreational Facilities and Opportunities:**

There are no designated recreational facilities within this compartment. It is common to find deer hunting camps in the fall of the year. Snowmobilers use the pipeline corridor during the winter. The mushroom hunters and berry pickers use the compartment seasonally. Since the military uses the area for training during the summer, the recreational camping opportunities are limited. (T.M.N. 12/10/14)

#### **Fire Protection:**

There is significant wildfire potential in the jack pine stands in the western part of this compartment. A large portion of the compartment burned in May 2009 as part of the Range 9 fire. Wildfire potential will increase as this jack pine matures. The military has purchased a Fecon mulching machine to put in firebreaks adjacent to the ranges to help stop the spread of fire.

#### **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**



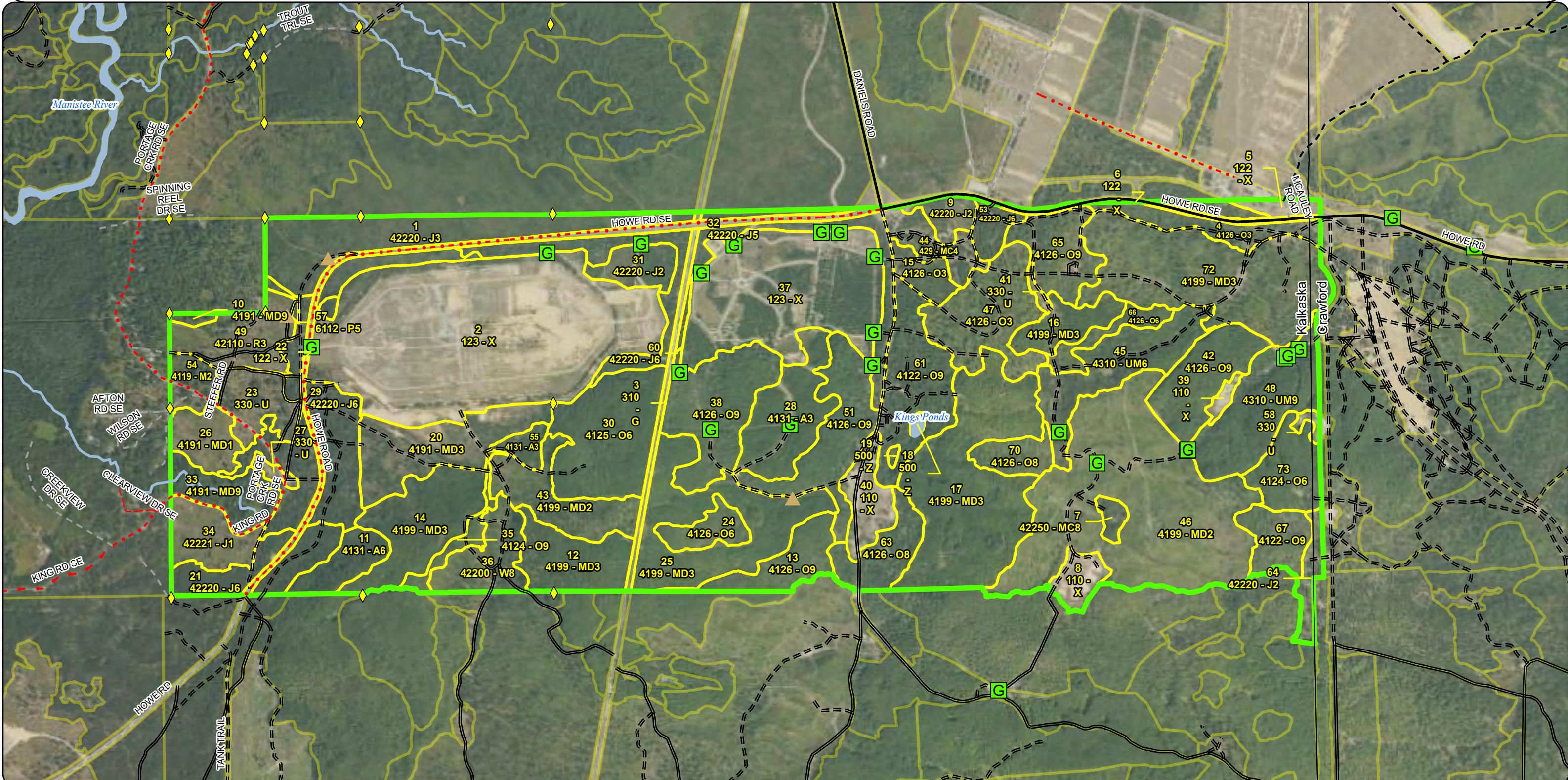
## Stand Boundary Map

Compartment: 61230  
T26N R05W 25-27  
County: Kalkaska  
Unit: Traverse City  
Mgmt. Area: Camp Grayling  
YOE: 2027  
Acres: 1,910 GIS Calculated  
Examiner: Steve Crigier  
Date Exported: 1/12/2026  
Map Phase: Post Maps

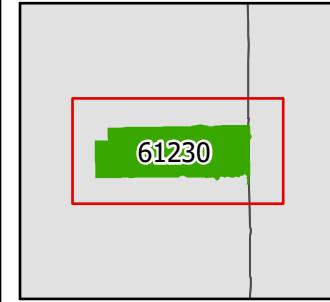


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## Special Conservation Areas & Site Conditions Map



Compartment: 61230  
T26N R05W 25-27  
County: Kalkaska  
Unit: Traverse City  
Mgmt. Area: Camp Grayling  
YOE: 2027  
Acres: 1,910 GIS Calculated  
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Map Phase: Post Maps



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Survey Grade Corners

Berm

Gate

DNR - Secondary Forest Road

==== DNR - Forest Access Route

— Federal / State / County - Paved Road

— - - Federal / State - Dirt / Gravel Road

- - - County - Gravel Road

- - - County - Dirt Road (Seasonal)

- - - Private - Dirt / Gravel Road

— Streams

— Lakes and Rivers

— Compartment Boundary

— Stand Boundaries

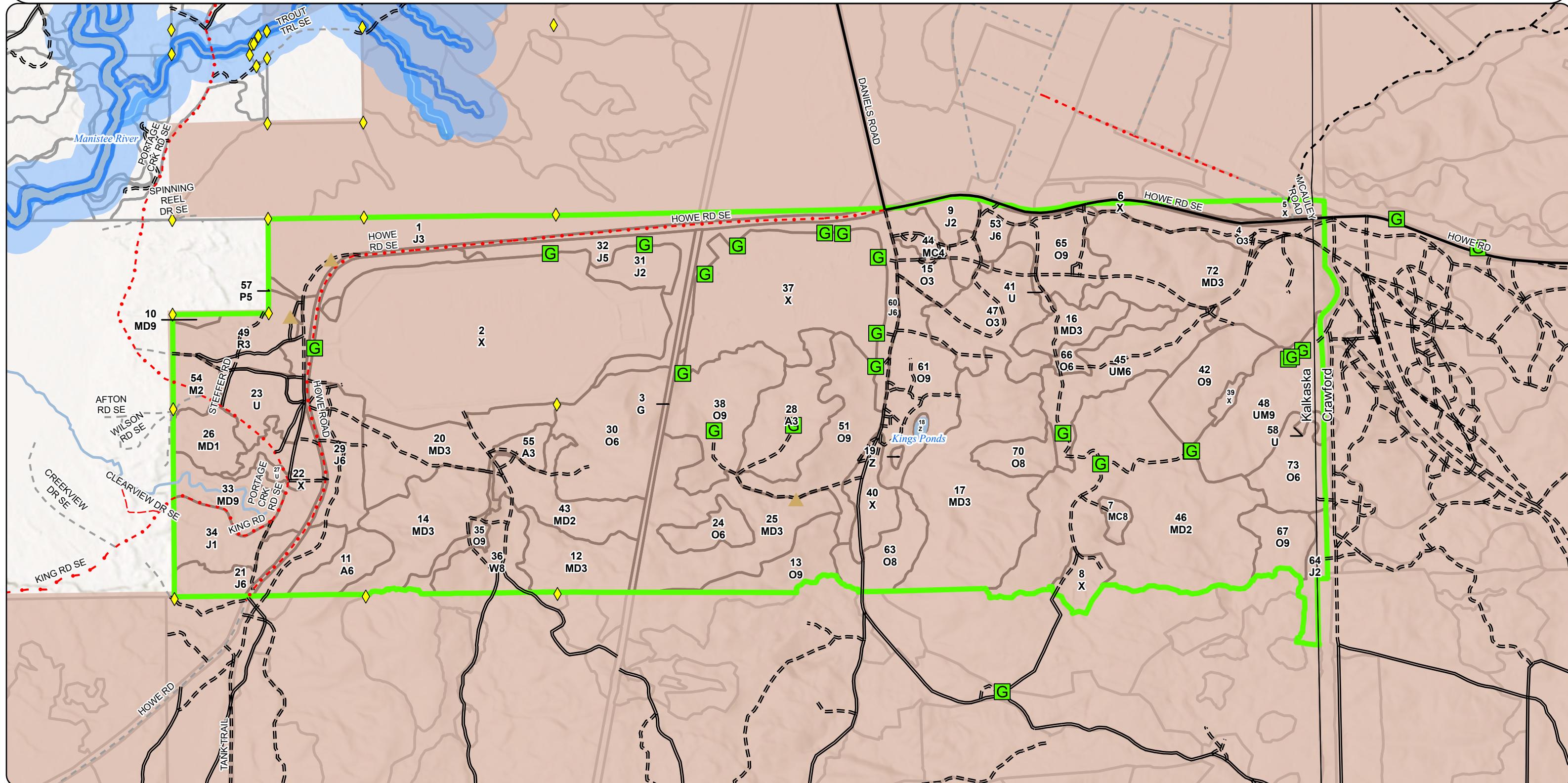
— Natural Rivers Vegetative Buffer

— Natural Rivers Zoning District

— Cold Water Streams

— High Priority Trout Stream Buffer

— Research, Development, and Military Lands



## 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+	UnstAged	Total
Aspen	0	0	43	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	58
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Jack Pine	0	21	82	23	0	0	111	31	0	0	0	0	0	0	0	0	0	0	268
Low-Density Trees	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Mixed Upland Deciduous	0	281	242	42	0	0	0	0	2	0	20	0	0	0	0	0	0	0	587
Natural Mixed Pines	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Northern Hardwood	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Oak	0	42	32	0	0	0	75	0	0	20	73	158	12	0	0	0	0	21	431
Red Pine	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84
Urban	359	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	359
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
White Pine	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	24
<b>Total</b>	<b>397</b>	<b>372</b>	<b>399</b>	<b>76</b>	<b>15</b>	<b>0</b>	<b>186</b>	<b>57</b>	<b>4</b>	<b>22</b>	<b>73</b>	<b>178</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>120</b>	<b>1909</b>

## Report 2 – Treatment Summary

Traverse City Mgt. Unit  
Year of Entry: 2027

Compartment 230  
Total Compartment Acres: 1,910

### Acres of Harvest

Commercial Harvest - 148  
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	Oversize Removal	Salvage	Other	Total Acres
Jack Pine	0	0	0	0	0	9	0	0	9	9
Oak	0	0	0	0	70	0	0	0	70	70
Total	0	0	0	0	70	0	9	0	0	79

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	79	0	0	0	291	0	0	0	0	369
Next Step	0	0	0	0	0	361	0	0	0	361
Total	79	0	0	0	291	0	361	0	0	730

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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:**

23	61230023-Burn	47.7	330 - Low-Density Trees	99		Burn	Prescribed Burn	310 - Herbaceous Openland	Previous Inventory	No
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Prescription: Moderate to high intensity burn to stimulate native grasses and to set back woody encroachment.  
Specs:

Next Step: Monitoring, Prescribed Burn

Treatments:Acceptable Regen:

Other Private property to the west. Also, check on EMR restrictions for this area as it may impact the timing of the burn.  
Comment:

Site Condition:

Proposed Start Date: 10/01/2026

43	61230043-Burn	51.3	4199 - Other Mixed Upland Deciduous	2	7	1-50	Burn	Prescribed Burn	4122 - Oak, Pine	Cutting Record	No
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Prescription: Moderate to high intensity burn in late spring or early summer. Objective is to top kill the maple and aspen competition reducing its composition in the stand by 20%. Retain 90% of the overstory pine and oak.

Specs:

Next Step: Monitoring, Habitat Monitoring

Treatments:Acceptable Regen:

Other Coordinate with Camp Grayling Environmental about timing and site objectives. Site is on moderate terrain. Might be able to expand this treatment to the south in stand 24 of compartment 131.  
Comment:

Site Condition:

Proposed Start Date: 10/01/2026

46	61230046-Burn	104.1	4199 - Other Mixed Upland Deciduous	2	6	Immature	Burn	Prescribed Burn	4122 - Oak, Pine	Planting Record	No
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Prescription: Moderate to high intensity burn in late spring-early summer. Objectives are to top kill the aspen and red maple competition and reduce its composition in the stand by 20%. Also to stimulate the oak regeneration that is present to get it about the deer b

Specs:

Next Step: Monitoring, Prescribed Burn

Treatments:Acceptable Regen:

Other Hilly terrain on Military land. Will need to coordinate with CG Environmental and Range Control.  
Comment:

Site Condition:

Proposed Start Date: 10/01/2026

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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
53	61230053-Cut	8.5	42220 - Natural Jack Pine	6	60	51-80	Harvest	Overstory Removal	4122 - Oak, Pine	Planting Record	No
<u>Prescription</u> Remove the jack pine over story, leave all white oak. Don't cut any oak less than 6" in diameter. <u>Specs:</u>											
<u>Next Step</u> <u>Treatments:</u>											
<u>Acceptable</u> <u>Regen:</u>											
<u>Other</u> Apply Military training timing restriction, oak wilt, low stump and chipping specification. EMR restriction may need to be applied. <u>Comment:</u>											
<u>Site Condition:</u>											
<u>Proposed Start Date:</u> 10/01/2026											
61	61230061-Cut	31.6	4122 - Oak, Pine	9	106	51-80	Harvest	Shelterwood	4122 - Oak, Pine	Cutting Record	No
<u>Prescription</u> Shelter wood harvest to encourage the understory development. Leave all red and white pine and mark 10-20sq ft of oak to leave, preferably white oak. Protect advanced regen. Also consider leaving the aspen and red maple to avoid sprouting. Don't cut											
<u>Next Step</u> <u>Treatments:</u>											
<u>Acceptable</u> oak, pine <u>Regen:</u>											
<u>Other</u> Apply military training timing restriction, oak wilt, chipping and low stump specifications. A post harvest burn may be advantageous to encourage oak regeneration and reduce aspen and maple competition.											
<u>Site Condition:</u>											
<u>Proposed Start Date:</u> 10/01/2026											
63	61230063-Cut	16.1	4126 - White, Black, N. Pin Oak	8	99	51-80	Harvest	Shelterwood	4122 - Oak, Pine	Cutting Record	No
<u>Prescription</u> Shelter wood harvest to encourage the understory development. Leave all red and white pine and mark 10-20sq ft of oak to leave, preferably white oak. Protect advanced regen. Also consider leaving the aspen and red maple to avoid sprouting. Don't cut											
<u>Next Step</u> <u>Treatments:</u>											
<u>Acceptable</u> oak, pine, <u>Regen:</u>											
<u>Other</u> Long term MO of oak/pine. Apply military time restriction, oak wilt, chipping and low stump specifications. A post harvest burn might be advantageous for oak regeneration and to reduce maple and aspen competition. Review Arch hit on site.											
<u>Site Condition:</u>											
<u>Proposed Start Date:</u> 10/01/2026											
66	61230066-Cut	10.5	4126 - White, Black, N. Pin Oak	6	91	111-140	Harvest	Shelterwood	4122 - Oak, Pine	Cutting Record	No
<u>Prescription</u> Shelter wood harvest to encourage the understory development. Leave all red and white pine and mark 10-20sq ft of oak to leave, preferably white oak. Protect advanced regen. Also consider leaving the aspen and red maple to avoid sprouting. Don't cut											
<u>Next Step</u> <u>Treatments:</u>											
<u>Acceptable</u> oak, pine & aspen <u>Regen:</u>											
<u>Other</u> Apply military training timing restriction, oak wilt, chipping and low stump specifications. A post harvest burn may be advantageous to encourage oak regeneration and reduce aspen and maple competition. EMR restriction may apply.											
<u>Site Condition:</u>											
<u>Proposed Start Date:</u> 10/01/2026											

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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
70	61230070-Cut	12.0	4126 - White, Black, N. Pin Oak	8	116	51-80	Harvest	Shelterwood	4122 - Oak, Pine	Cutting Record	No
<u>Prescription</u>	Shelter wood harvest to encourage the understory development. Leave all red and white pine and mark 10-20sq ft of oak to leave, preferably white oak. Protect advanced regen. Also consider leaving the aspen and red maple to avoid sprouting. Don't cut										
<u>Specs:</u>											
<u>Next Step</u>	Monitoring, Natural Regen (Re-Inventory)										
<u>Treatments:</u>											
<u>Acceptable</u>	oak, pine, aspen										
<u>Regen:</u>											
<u>Other</u>	Apply military training timing restriction, oak wilt, chipping and low stump specifications.										
<u>Comment:</u>											
<u>Site Condition:</u>											
<u>Proposed Start Date:</u>	10/01/2026										
72	61230072-Burn	87.5	4199 - Other Mixed Upland Deciduous	3	6	1-50	Burn	Prescribed Burn	4122 - Oak, Pine	Cutting Record	No
<u>Prescription</u>	Moderate to high intensity burn in late spring-early summer. Objectives are to top kill the aspen and red maple competition and reduce its composition in the stand by 20%. Also to stimulate the oak regeneration that is present to get it about the deer b										
<u>Specs:</u>											
<u>Next Step</u>	Monitoring, Prescribed Burn										
<u>Treatments:</u>											
<u>Acceptable</u>	oak, pine										
<u>Regen:</u>											
<u>Other</u>	Hilly terrain on Military land. Will need to coordinate with CG Environmental and Range Control.										
<u>Comment:</u>											
<u>Site Condition:</u>											
<u>Proposed Start Date:</u>	10/01/2026										

**Total Treatment** 369.3  
**Acreage Proposed:**

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Steve Crigier: Examiner

Compartment: 230

Year of Entry: 2027

### Availability for Management

Total Acres	Acres Available	Acres Avail With Condition	Acres Not Available	Dominant Site Conditions			
				1B	3F	3J	5E
58	58	0	0	Aspen			
9	9	0	0	Herbaceous Openland			
206	133	0	73	Jack Pine		73	
27	27	0	0	Low-Density Trees			
2	0	0	2	Lowland Aspen/Balsam Poplar			2
499	471	0	28	Mixed Upland Deciduous			20 8
4	0	0	4	Natural Mixed Pines			4
11	11	0	0	Northern Hardwood			
338	246	0	93	Oak	47	30	10 5
28	28	0	0	Red Pine			
15	15	0	0	Upland Conifers			
74	40	0	35	Upland Mixed Forest		35	
350	346	0	4	Urban		3	1
2	2	0	0	Water			
24	24	0	0	White Pine			
1,647	1,409		238	Total Forested Acres	47	141	32 18
		86%	14%	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	Dominant Site Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	3J: Water quality/BMPs (stream, river, or lake)	20	1A: Federal/State/Local Law	Unspecified	Unspecified	Unspecified
<b>Comments:</b>								
Natural Rivers buffer for unnamed tributary of Manistee River.								
2	Unavailable	5E: Long-Term Retention	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>								
Reserve islands from Lamb Hill Oak, 61-68-07-01.								

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Steve Crigier: Examiner

Compartment: 230

Year of Entry: 2027

3	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Retention from Esler Hill Aspen/Oak, 61-603-07-01.							
4	Unavailable	1B: Non-DNR agency concerns (e.g. USFS)	15	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Behind military training area fence. They don't want any timber harvests in this training area.							
5	Unavailable	3F: Military easement/lease	50	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Buffer strip for FOB.							
7	Unavailable	3F: Military easement/lease	23	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Buffer for training area.							
8	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
10	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> St63 LTR							
11	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	10	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Steve Crigier: Examiner

Compartment: 230

Year of Entry: 2027

12	Unavailable	3F: Military easement/lease	68	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
Buffer zone around range. Trees might have ammunition in them.							
13	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
Left buffer along training area per military request.							
21	Unavailable	1B: Non-DNR agency concerns (e.g. USFS)	32	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
Behind military training area fence. They don't want any timber harvests in this training area.							
23	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
24	Unavailable	5E: Long-Term Retention	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

**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
<b>Comments</b>				

Stand	Level 4 Cover Type			Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
1	42220 - Natural Jack Pine			Sapling Well	73.1	14	Immature	N/A	2015- Burned in Range 9 fire, May 2010. Salvage timber sale, Range 9 Fire Salvage, 61-633-10-01, cut winter 2011. Dense jack pine regeneration, less than 3 feet tall. Some veins of aspen from wet stand to the north.
	Canopy Species	% Cover	Size Class	DBH Age					
	Red Maple	10	Sapling	1 14					
	Black/Red (Hybrid) Oak	5	Sapling	1 14					
	Jack Pine	75	Sapling	2 14					
	Black Cherry	10	Sapling	2 14					
2	123 - Other High Intensity Urban			None	199.3			No	Fenced in military training facility .FOB 29
3	310 - Herbaceous Openland			None	8.9			No	Corridor for multiple underground pipelines.
4	4126 - White, Black, N. Pin Oak			Sapling Well	22.1	16	1-50	N/A	2025- areas of pole timber and some spots with a more dense Canopy of Log sized trees2015- Cut October 2010 as part of Baker Hill Jack, 61-645-07-01, Lutke, removed jack pine, aspen and red maple. Poor quality stand. Opening at east end maintained by Camp Grayling.
	Canopy Species	% Cover	Size Class	DBH Age					
	Red Maple	5	Sapling	2 16					
	White Oak	10	Log	12 91					
	White Oak	10	Sapling	2 16					
	Black/Red (Hybrid) Oak	55	Sapling/Pole	3 16					
	Black/Red (Hybrid) Oak	5	Log	12 91					
	Red Pine	5	Sapling/Pole	4					
	Jack Pine	10	Sapling	2 16					
5	122 - Road/Parking Lot			None	5.6			No	Entrance to Ranges 8 and 9. Includes some small outbuildings. Mowed and maintained open by Camp Grayling.
6	122 - Road/Parking Lot			None	6.0			No	Howe Road.
7	42250 - Pine, Oak			Sawtimber Medium	4.2	71	51-80	N/A	2025 Small patch of red pine in a small bowl-shaped depression with an opening in the middle. Trees are open-grown. Military training infrastructure present.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	
	White Oak	10	Log/Pole	10	White Oak	Medium	5 - 10 feet	5 - 10 feet	
	Black/Red (Hybrid) Oak	20	Log/Pole	12					
	Red Pine	70	Log/Pole	10 71					
8	110 - Low Intensity Urban			None	10.0			No	Range 21. Camp Grayling has been doing some work with Fecon in this area to open up roads and clear edges of this opening. Continues in Compartment 131 to the south.
9	42220 - Natural Jack Pine			Sapling Medium	8.9	16	Immature	N/A	2025- Stand is filling in, east side is still sparsely stocked.2015-Cut October 2010 as part of Range 9 and Howe Road Fire Salvage, 61-678-10-02, Lutke, clearcut with 2" spec except oak and cherry. Good jack pine regeneration and oaks are starting to get above the browse line. A few pole-sized oaks left in the overstory.
	Canopy Species	% Cover	Size Class	DBH Age					
	Black/Red (Hybrid) Oak	20	Sapling	2 16					
	Jack Pine	80	Sapling	2 16					

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
10	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	2.1	81	81-110	N/A	2015 -Small stand with challenging topography, sandwiched between two small ridges. Burned in Range 9 fire, May 2010. Relatively high mortality and CWD.		
	<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	30	Pole/Log	8		Red Maple	Medium	>20 feet	>20 feet
	Red Oak	15	Log	16					
	Quaking Aspen	20	Log/Pole	12					
	White Pine	30	XLog/Log	18	81				
	Red Pine	5	Log	14					
11	4131 - Aspen, Oak	Poletimber Well	15.1	38	51-80	N/A	2025- Scattered mature oak and red pine overtop the aspen. Pole sized oak present, regenerated with the aspen. Pine and oak establishing in the understory. 2015 -Most of stand is on slope of steep ridge with northwest aspect. Hill might be an operational challenge. Well-stocked, good quality aspen (4-8" dbh).		
	<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	10	Sapling/Pole	4	38	Red Pine	Low	5 - 10 feet	5 - 10 feet
	White Oak	3	Log	12	91	Black/Red (Hybrid) Oak	Low	Variable	Variable
	White Oak	5	Pole/Sapling	6	38	White Oak	Trace	Variable	Variable
	Bigtooth Aspen	42	Pole/Sapling	6	38				
	Black/Red (Hybrid) Oak	15	Log	14	91				
	Black/Red (Hybrid) Oak	20	Pole/Sapling	7	38				
	Red Pine	5	Log	14	91				
12	4199 - Other Mixed Upland Deciduous	Sapling Well	28.7	18	Immature	N/A	2025- Moderate terrain. High stem density of regen. 2015-Cut October 2008 as part of Smith Hill Oak, 61-602-07-01, Mid-Michigan Logging, clearcut with 2" spec. There were problems with bullets in the trees that were not picked up by metal detectors. Sale notes state that this 2007 sale was set up before retention guidelines went into effect. Heavy browse.		
	<b>Canopy Species</b>	<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>				
	Red Maple	35	Sapling	2	18				
	White Oak	5	Sapling	1	18				
	Bigtooth Aspen	20	Sapling	2	18				
	Black/Red (Hybrid) Oak	30	Sapling	2	18				
	White Pine	5	Sapling	2	18				
	Red Pine	5	Sapling	2	18				
13	4126 - White, Black, N. Pin Oak	Sawtimber Well	21.1	97	81-110	N/A	2025- Some individual mortality. White pine and some oak developing in the understory in areas. 2015- Rolling hills with mostly southern or eastern aspect. More white pine in understory than other oak stands in this compartment. Red maple in understory is starting to reach pole size. Heavy browse. Some oak mortality. Oak quality improves with higher elevations.		
	<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	10	Pole	6		Witch Hazel	Low	5 - 10 feet	5 - 10 feet
	White Oak	35	Pole/Log	9	97	Black/Red (Hybrid) Oak	Trace	< 5 feet	< 5 feet
	Bigtooth Aspen	10	Log/Pole	11	97	White Pine	Medium	Variable	Variable
	Black/Red (Hybrid) Oak	40	Log/Pole	11	97	Red Maple	Low	>20 feet	>20 feet
	White Pine	3	Pole/Sap/Log	8					
	Red Pine	2	Log/Pole	12					

Stand	Level 4 Cover Type			Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
14	4199 - Other Mixed Upland Deciduous			Sapling Well	42.0	18	Immature	N/A	2025- The ridge seems to have a heavier component of oak. The flats or west end more of an aspen and red maple mix. clone of big tooth in the far north east corner. 2015- Cut October 2008 as part of Smith Hill Oak, 61-602-07-01, Mid-Michigan Logging, clearcut with 2" spec. 54 scattered oaks and a few white and red pine were left. There were problems with bullets in the trees that were not picked up by metal detectors. Sale notes state that this 2007 sale was set up before retention guidelines went into effect. Disappointing amount of aspen in regeneration mix. Heavy browse on the oaks. Rather steep ridge.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	
	Red Maple	20	Sapling	2 18	Witch Hazel	Low	5 - 10 feet	5 - 10 feet	
	Bigtooth Aspen	15	Sapling	2 18					
	Black/Red (Hybrid) Oak	43	Sapling	2 18					
	Black/Red (Hybrid) Oak	2	Log	12 128					
	Jack Pine	5	Sapling	2					
	Black Cherry	15	Sapling	2 18					
15	4126 - White, Black, N. Pin Oak			Sapling Well	10.1	16	Immature	N/A	2025- Good stem density. Trees are 20-30' tall. 2015- Cut October 2010 as part of Baker Hill Jack, 61-645-07-01, Lutke, clearcut except for a handful of oak and red pine trees left for wildlife. Good oak regeneration. Some is getting above browse line but not the red maple.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	
	Red Maple	10	Sapling	2 16	Black/Red (Hybrid) Oak	Medium	< 5 feet	< 5 feet	
	White Oak	20	Sapling	2 16					
	Black/Red (Hybrid) Oak	45	Sapling	2 16					
	Jack Pine	25	Sapling	2 16					
16	4199 - Other Mixed Upland Deciduous			Sapling Well	16.4	18	Immature	N/A	2025- Oak is starting to develop especially on hill top. Thick stem density. 2015-Cut December 2008 as part of Lamb Hill Oak, 61-618-07-01, Muma, clearcut with 2" spec. Oaks are mostly suppressed by red maple and aspen. Heavy browse.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	
	Red Maple	30	Sapling	2 18	Black/Red (Hybrid) Oak	Medium	< 5 feet	< 5 feet	
	White Oak	15	Sapling	1 18					
	Bigtooth Aspen	30	Sapling	2 18					
	Black/Red (Hybrid) Oak	25	Sapling	2 18					
17	4199 - Other Mixed Upland Deciduous			Sapling Well	94.2	18	Immature	N/A	2025- Stand has filled in well. Good oak component. Some pine seeding in as well. 2015-Cut December 2008 as part of Lamb Hill Oak, 61-618-07-01, Muma, clearcut with 2" spec. Left 4 reserve areas of mature timber (1-2 acres each). Regeneration less thick than some other stands of this age. Rolling hills.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	
	Red Maple	25	Sapling	2 18	Black/Red (Hybrid) Oak	Medium	< 5 feet	< 5 feet	
	White Oak	15	Sapling	1 18					
	Bigtooth Aspen	25	Sapling	2 18					
	Black/Red (Hybrid) Oak	30	Sapling	2 18					
	White Pine	5	Sapling	2 18					
18	500 - Water			None	1.1			No	Small kettle lake with relatively steep banks.
19	500 - Water			None	0.8			No	Small kettle depression with relatively steep sides.
20	4191 - Mixed Upland Deciduous with Conifer			Sapling Well	42.3	26	Immature	N/A	2025- Jack pine filling in at the far north end of the stand. Northeast part of the stand was not part of the timber sale but is roughly the same age and species composition. 2015- Cut winter 1998-1999 as part of Smith Hill, 61-126-98-01. Rolling hills. Left a clump of trees on a steep hill. Heavy browse but many oaks are above browse now. Oak seems to be relatively poor quality.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	
	Red Maple	10	Sapling	2 26	Black/Red (Hybrid) Oak	Medium	< 5 feet	< 5 feet	
	Black/Red (Hybrid) Oak	50	Sapling	3 26					
	Jack Pine	20	Sapling	3 26					

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
21	42220 - Natural Jack Pine	Poletimber Well	27.1	54	51-80	N/A	2025- oak continuing to develop in the understory. Some remnant red pine scattered in the overstory. 2015-Regenerated after a fire. Very dense jack pine just reaching pole size. A few scattered oaks in the overstory mostly along the eastern edge where stand transitions into oak type. Very few scattered oak saplings under jack pine.
	Canopy Species % Cover Size Class DBH Age			Sub-Canopy Species	Density	Avg. Height	Size
	Black/Red (Hybrid) Oak 5 Log 14			White Oak	Trace	5 - 10 feet	5 - 10 feet
	Red Pine 3 Log 12			Red Pine	Trace	5 - 10 feet	5 - 10 feet
	Jack Pine 92 Pole/Sapling 6 54			Black/Red (Hybrid) Oak	Low	5 - 10 feet	5 - 10 feet
22	122 - Road/Parking Lot	None	21.4		No	Howe Road.	
23	330 - Low-Density Trees	None	20.6		Yes	Opening that is filling in with shrubby cherry and jack pine. Contains scattered pockets of merchantable jack pine and aspen that, combined with nearby stands, may help make an opening maintenance prescription a commercial treatment.	
	Canopy Species % Cover Size Class DBH Age			Sub-Canopy Species	Density	Avg. Height	Size
	White Oak 35 Pole/Log 8 85			Jack Pine	Low	>20 feet	>20 feet
	Black/Red (Hybrid) Oak 60 Pole/Log 9 85			Black Cherry	High	5 - 10 feet	5 - 10 feet
	White Pine 5 Pole 8			Quaking Aspen	Low	>20 feet	>20 feet
24	4126 - White, Black, N. Pin Oak	Poletimber Well	11.8	85	81-110	N/A	2025- A couple pockets of mortality 2015-Rolling hills. Mostly poles on the verge of a log stand. Hold until surrounding stands are older.
	Canopy Species % Cover Size Class DBH Age			Sub-Canopy Species	Density	Avg. Height	Size
	White Oak 35 Pole/Log 8 85			Black/Red (Hybrid) Oak	Trace	5 - 10 feet	5 - 10 feet
	Black/Red (Hybrid) Oak 60 Pole/Log 9 85			White Pine	Trace	Variable	Variable
25	4199 - Other Mixed Upland Deciduous	Sapling Well	60.5	18	Immature	N/A	2025- Rolling terrain. High stem density. 2015-Part of Esler Hill Aspen/Oak, 61-603-07-01. Cannot file sale notes. Includes 2 retention islands. Red maple appears to be doing the best of the species within the regeneration mix.
	Canopy Species % Cover Size Class DBH Age						
	Red Maple 40 Sapling 2 18						
	Bigtooth Aspen 35 Sapling 2 18						
	Black/Red (Hybrid) Oak 21 Sapling 2 18						
	White Pine 2 Pole/Log 8						
	Red Pine 2 Sapling 2 18						
26	4191 - Mixed Upland Deciduous with Conifer	Sapling Poor	16.3	6	Immature	N/A	2025- Regen is struggling to establish but seeing some oak and jack pine. 2020: 40 Laps Mix, 61-653-17. Cut fall 2019. Cut all trees >2" except white oak and white pine. 2015: Variable stand. Not typed out separately in Ol. Generally poor quality and variable stocking. Very heavy browse on red maple and oaks in understory.
	Canopy Species % Cover Size Class DBH Age						
	Red Maple 10 Sapling 1 6						
	Quaking Aspen 20 Sapling 1 6						
	Black/Red (Hybrid) Oak 5 Sapling 1 6						
	White Pine 5 Sapling 1 6						
	Jack Pine 20 Sapling 1 6						
27	330 - Low-Density Trees	None	2.9		No	2015-Opening that is filling in with shrubby cherry and jack pine.	
	Canopy Species % Cover Size Class DBH Age			Sub-Canopy Species	Density	Avg. Height	Size
				Red Maple	Low	10 - 20 feet	10 - 20 feet
				Jack Pine	Low	5 - 10 feet	5 - 10 feet
				Black Cherry	High	5 - 10 feet	5 - 10 feet

Stand	Level 4 Cover Type			Size Density		Acres	Stand Age	BA Range	Managed Site		General Comments
28	4131 - Aspen, Oak			Sapling Well		36.6	18	Immature	N/A		High stem density. Oak growing under the aspen and maple. 2015-Part of Esler Hill Aspen/Oak, 61-603-07-01. Cannot find sale notes. Aspen is doing well. Aspen and red maple are both taller than oaks. Rolling hills. Part of stand is fenced.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Red Maple	30	Sapling	2	18						
	White Oak	10	Sapling	1	18						
	Bigtooth Aspen	40	Sapling	2	18						
	Black/Red (Hybrid) Oak	20	Sapling	1	18						
29	42220 - Natural Jack Pine			Poletimber Well		57.8	58	Unspecified	N/A		2025- Oak established in understory. Jack pine also establishing in the canopy gaps. 2015-Patchy stand with scattered small openings. Moderate amount of jack pine mortality. Some advanced oak regeneration but heavy browse on shorter stems. Lots of roads and tank trail.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Black/Red (Hybrid) Oak	10	Log/Pole	10	58						
	White Pine	2	Log/Pole	10	58						
	Red Pine	2	Log/Pole	10							
	Jack Pine	86	Pole/Sap/Log	8	58						
30	4125 - Black, N. Pin Oak			Poletimber Well		52.1	50	81-110	N/A		2025- Stand has developed into a nice stand of primarily Oak. clones of aspen. 2015- Clearcut in 1976. Still mostly saplings but starting to become a pole stand. Some good quality oak poles. There are scattered residual oak log trees. More white pine in the understory along the northern edge/slope. Some oak mortality. Seems like high deer presence. Rolling hills.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Red Maple	10	Pole/Sapling	6	50						
	White Oak	15	Pole/Sapling	5	50						
	Bigtooth Aspen	20	Pole	7	50						
	Black/Red (Hybrid) Oak	45	Pole/Sapling	7	50						
	White Pine	3	Pole	8							
	Red Pine	7	Pole	8							
31	42220 - Natural Jack Pine			Sapling Medium		13.6	21	Immature	N/A		2015-Forested area within FOB. Cleared in summer 2005 with rest of FOB. Some oaks underneath but heavily browsed.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Jack Pine	90	Sapling	2	21						
	Black Cherry	10	Sapling	1							
32	42220 - Natural Jack Pine			Poletimber Medium		26.0	58	81-110	N/A		2025-2015-Buffer strip between FOB and Howe Road and/or pipeline. Parts are more like J6 and parts are more like J3. No evidence of red pine planted parallel to road (mentioned in previous inventory notes).
	Canopy Species	% Cover	Size Class	DBH	Age						
	Red Pine	2	Pole	7							
	Jack Pine	93	Pole/Sapling	6	58						
	Black Cherry	5	Sapling/Pole	4							
33	4191 - Mixed Upland Deciduous with Conifer			Sawtimber Well		20.0	106	81-110	N/A		Contains the headwaters of an unnamed stream that is a tributary to the Manistee River. Local name for the site is Cold Springs. The stream appears to seep out of steep hill and springs near the transition between Portage Creek Road to King Road. The creek floodplain is rather wide and surrounded by a steep 20' bank that leads to a forested upland area. Floodplain contains more of the balsam and white pine while most of the oak and jack pine is on top of the bank.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Red Maple	30	Log/Pole	10	106						
	Paper Birch	5	Pole	8							
	Quaking Aspen	25	Pole/Log	9							
	Black/Red (Hybrid) Oak	10	Log/Pole	12							
	White Pine	20	Log	12							

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
34	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Poor	20.8	6	Immature	N/A	2025- Jack pine is starting to establish. Also some oak regeneration. Scattered mature white pine and oak left after harvest 2015- 40 Laps Mix, 61-653-17. Cut fall 2019. Clearcut except for scattered leave trees. 2015: Significant jack pine mortality and some oak mortality. Stand is more diverse along edges especially northern boundary along King Road. Rolling hills.		
	<b>Canopy Species</b>	<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>				
	Red Maple	10	Sapling	1	6				
	White Oak	10	Log/Pole	12					
	Black/Red (Hybrid) Oak	10	Sapling	1	6				
	White Pine	10	Pole/Sapling	7					
35	4124 - Red with White Oak	Sawtimber Well	8.2	85	81-110	N/A	2025- A part of the parent stand that was not harvested. Oak and pine developing in the understory. On the ridge top. 2015-Fair quality oak stand. Mostly poles but starting to reach log size. Evidence of fire. Some remnant older red pines. White pine and red pine in the understory on the slope with a southeast aspect. A few patches of dense oak regeneration but < 3' tall. Relatively flat 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	40	Log/Pole	10	85	White Oak	Low	5 - 10 feet	5 - 10 feet
	White Oak	45	Pole/Log	9	85	White Pine	Low	5 - 10 feet	5 - 10 feet
	Bigtooth Aspen	10	Pole/Log	8		Red Pine	Trace	5 - 10 feet	5 - 10 feet
	Red Pine	5	Pole/Log	9		Red Maple	Low	Variable	Variable
						Witch Hazel	Low	5 - 10 feet	5 - 10 feet
36	42200 - Natural White Pine	Sawtimber Medium	24.0	65	1-50	N/A	2025- Stand is in a valley. Many ages and sizes of pine overstory. Mix of deciduous species regenerating after harvest. Decent oak / pine component. Most of the oak is still below browse line. 2020-Cut everything except red and white pine 2020, Sauntering Salvage, 61-669-16.		
	<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	60	Pole/Sap/Log	8	65	White Oak	Low	5 - 10 feet	5 - 10 feet
	Red Pine	40	Log/Pole	10	65	Black/Red (Hybrid) Oak	Medium	5 - 10 feet	5 - 10 feet
						White Pine	Medium	5 - 10 feet	5 - 10 feet
						Red Maple	Low	5 - 10 feet	5 - 10 feet
						Bigtooth Aspen	Low	5 - 10 feet	5 - 10 feet
37	123 - Other High Intensity Urban	None	96.6		No		CIED training area. Some forested areas but will likely never have a forest management objective.		
38	4126 - White, Black, N. Pin Oak	Sawtimber Well	45.4	103	81-110	N/A	2025- Seeing some individual mortality. Small amounts of pine and oak establishing in the understory. 2015- Most of stand is behind a chain link fence. Fair quality oak with scattered pine.		
	<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 Oak	30	Log/Pole	10	103	Red Pine	Trace	10 - 20 feet	10 - 20 feet
	Bigtooth Aspen	25	Log/Pole	10		Black/Red (Hybrid) Oak	Low	5 - 10 feet	5 - 10 feet
	Black/Red (Hybrid) Oak	40	Log/Pole	11	103	White Pine	Low	10 - 20 feet	10 - 20 feet
	Red Pine	5	Log	12					
39	110 - Low Intensity Urban	None	3.0		No		Range 20.		
40	110 - Low Intensity Urban	None	17.2		No		Military training area.		
41	330 - Low-Density Trees	None	1.8		No		Small opening/area of disturbance.		

Stand	Level 4 Cover Type			Size Density		Acres	Stand Age	BA Range	Managed Site			General Comments
<b>42</b>	4126 - White, Black, N. Pin Oak			Sawtimber Well		30.5	106	81-110	N/A			2025- Patches of oak establishing in the understory. Also Scattered red and white pine present under the oak canopy. Berm around stand. 2015: Fair quality oak with some pockets of pure aspen. Some oak mortality and heavy browse. Rolling hills but generally flatter. Stand is adjacent to Range 20 which is used for detonating small explosives. As a result, trees on the edge of the range may contain metal fragments.
	Canopy Species	% Cover	Size Class	DBH	Age				Sub-Canopy Species	Density	Avg. Height	Size
	Red Maple	10	Pole	8					White Oak	Medium	< 5 feet	< 5 feet
	White Oak	20	Log/Pole	10	106				Red Maple	Low	>20 feet	>20 feet
	Bigtooth Aspen	10	Pole/Log	9					Black/Red (Hybrid) Oak	Low	5 - 10 feet	5 - 10 feet
	Black/Red (Hybrid) Oak	45	Log/Pole	12	106				White Pine	Low	>20 feet	>20 feet
	White Pine	10	Pole/Sap/Log	8					Red Pine	Low	>20 feet	>20 feet
	Red Pine	5	Pole/Sap/Log	8								
<b>43</b>	4199 - Other Mixed Upland Deciduous			Sapling Medium		30.0	7	1-50	N/A			2025- Stand is regenerating well to a nice mix of species. Some of the oak is still below the browse line and some is getting chewed off. Moderate terrain. More residual log sized trees on the ridge 2020: 40 Laps Mix, 61-653-17. Cut fall 2019 with adjacent Sauntering Salvage. Cut everything except RP, WP, and white oak. 2015: Fair quality oak stand but variable density. Trace of red pine and white pine in the canopy. Heavy browse on seedlings < 3' tall. Evidence of fire. Pocket of good size aspen in southeast corner near pipeline.
	Canopy Species	% Cover	Size Class	DBH	Age				Sub-Canopy Species	Density	Avg. Height	Size
	Red Maple	25	Sapling	1	7				White Oak	Medium	< 5 feet	< 5 feet
	White Oak	15	Log/Pole	10	105				Red Maple	Low	>20 feet	>20 feet
	White Oak	10	Sapling	1	7				Black/Red (Hybrid) Oak	Low	5 - 10 feet	5 - 10 feet
	Bigtooth Aspen	20	Sapling	1	7				White Pine	Low	>20 feet	>20 feet
	Black/Red (Hybrid) Oak	20	Sapling	1	7				Red Pine	Low	>20 feet	>20 feet
	White Pine	7	Pole/Sap/Log	7								
	Red Pine	3	Pole/Log	8								
<b>44</b>	429 - Mixed Upland Conifers			Poletimber Poor		15.3	36	1-50	N/A			2025- Data was lost after field visit. Needs to be updated with a field data. Area is used heavily for military training activities. Semi open stand filling in with jack pine and white pine.
<b>45</b>	4310 - Pine, Oak Mix			Poletimber Well		39.5	81	81-110	N/A			2025- stand is pine oak mix, slightly heavier to pine. Southwestern part of stand has a heavy jack pine component. Quite a few size classes and cores indicate some different ages. Overall healthy stand.
	Canopy Species	% Cover	Size Class	DBH	Age				Sub-Canopy Species	Density	Avg. Height	Size
	Red Oak	35	Log/Pole	10	81				White Pine	Medium	Variable	Variable
	White Oak	10	Pole	8					Red Maple	Low	>20 feet	>20 feet
	Bigtooth Aspen	5	Pole/Log	8								
	White Pine	20	Pole/Log/Sap	8								
	Red Pine	15	Log/Pole	10	68							
	Jack Pine	15	Pole	7	54							
<b>46</b>	4199 - Other Mixed Upland Deciduous			Sapling Medium		144.6	6	Immature	N/A			2025- Stand is in the process of regenerating. oak is establishing on the hill tops but is under a fair amount of browse pressure. 2020- Seedtree harvest in 2020. Yotta Oak, 61-654-17. Cut all aspen, red maple and jack pine. Leave tree marked scattered oak 2015: Some training infrastructure scattered throughout the stand. Rolling hills. Scattered pockets of pine in valleys and pockets of denser aspen. Average BA is 109 sf/ac. Generally little understory.
	Canopy Species	% Cover	Size Class	DBH	Age				Sub-Canopy Species	Density	Avg. Height	Size
	Red Maple	25	Sapling	1	6				Witch Hazel	Low	5 - 10 feet	5 - 10 feet
	White Oak	15	Sapling	1	6				Red Pine	Low	>20 feet	>20 feet
	White Oak	3	Log/Pole	11	101				White Pine	Low	>20 feet	>20 feet
	Bigtooth Aspen	25	Sapling	1	6							
	Black/Red (Hybrid) Oak	25	Sapling	1	6							
	White Pine	5	Pole/Sap/Log	6								
	Red Pine	2	Log/Pole	10								

Stand	Level 4 Cover Type			Size Density		Acres	Stand Age	BA Range	Managed Site	General Comments
47	4126 - White, Black, N. Pin Oak			Sapling Well		42.0	6	1-50	N/A	2025- cak is establishing on the south and west aspects, red maple and aspen on the north. fair amount of browse. Much of the oak still susceptible to browse. 2020-Final harvest in 2020. Yotta Oak, 61-654-17. Cut summer/fall 2020 and chipped. Cut all aspen, black/red/hybrid oak, red maple and jack pine. Left all red pine, white pine and white oak. Left more white oak than original prescription to reduce labor on sale prep2017: Fair to good quality oak with some mortality. Rolling hills. Scattered pockets of advanced regeneration. Generally more open in area outside of loop road..
	Canopy Species	% Cover	Size Class	DBH	Age					
	Red Maple	15	Sapling	1	6					
	White Oak	20	Log	10	106					
	White Oak	15	Sapling	1	6					
	Bigtooth Aspen	23	Sapling	1	6					
	Black/Red (Hybrid) Oak	25	Sapling	1	6					
	Red Pine	2	Log/Pole	10						
48	4310 - Pine, Oak Mix			Sawtimber Well		44.6	58	81-110	N/A	2025- Stand has a few age and size classes. Quite a bit of vertical structure. Some areas are more of a pine stand others more of an oak. Berm around the majority of the stand.BAs: 110, 110, 130, 2015- Stand is adjacent to Range 20 which is used for detonating small explosives. As a result, trees on the edge of the range may contain metal fragments. Understory is dense white pine with a few red pine sap/poles. Rolling hills with a slight depression in the middle of the stand. Observed a large flock of turkeys.
	Canopy Species	% Cover	Size Class	DBH	Age					
	Red Maple	5	Pole	8			Sub-Canopy Species	Density	Avg. Height	Size
	White Oak	15	Log/Pole	10	102		White Pine	High	10 - 20 feet	10 - 20 feet
	Black/Red (Hybrid) Oak	25	Log/Pole	10	102		Red Pine	Trace	Variable	Variable
	White Pine	20	Log/Pole	10						
	Red Pine	30	Pole/Log	9	58					
	Jack Pine	5	Pole/Log	8	58					
49	42110 - Planted Red Pine			Sapling Well		27.7	7	Immature	N/A	2025- Red pine is well established with just a little competition.
	Canopy Species	% Cover	Size Class	DBH	Age					
	Black/Red (Hybrid) Oak	2	Pole/Log	8			Sub-Canopy Species	Density	Avg. Height	Size
	Red Pine	88	Sapling	1	7		Red Pine	High	< 5 feet	< 5 feet
	Jack Pine	5	Sapling	1	7		Black/Red (Hybrid) Oak	Low	>20 feet	>20 feet
	Black Cherry	5	Sapling	1	7		Black Cherry	Low	< 5 feet	< 5 feet
							Oak (spp.)	Low	< 5 feet	< 5 feet
51	4126 - White, Black, N. Pin Oak			Sawtimber Well		39.9	106	81-110	N/A	2025- Small pocket and individual stem mortality present but mostly healthy looking stand. Oak present in the understory but is stunted and browsed down. BAs 70, 100, 1302015- Fair to good quality oak which increases with elevation. Some oak mortality. More jack pine mixed in on flat parts. Rolling hills. Part of stand is behind fence.
	Canopy Species	% Cover	Size Class	DBH	Age					
	Red Maple	5	Pole	8			Sub-Canopy Species	Density	Avg. Height	Size
	White Oak	25	Log/Pole	11	106		Black/Red (Hybrid) Oak	Low	< 5 feet	< 5 feet
	Bigtooth Aspen	10	Pole/Log	9			White Oak	Medium	< 5 feet	< 5 feet
	Black/Red (Hybrid) Oak	50	Log	13	106		Red Maple	Trace	Variable	Variable
	Red Pine	5	Log	10			Witch Hazel	Trace	5 - 10 feet	5 - 10 feet
	Jack Pine	5	Pole	6						
53	42220 - Natural Jack Pine			Poletimber Well		8.5	60	51-80	N/A	2025- Oak is well established in the understory. Over story is deteriorating. 2015- Some jack pine mortality. Very dense oak saplings in understory; many could be considered advanced regeneration.
	Canopy Species	% Cover	Size Class	DBH	Age					
	Red Oak	5	Log	14			Sub-Canopy Species	Density	Avg. Height	Size
	White Oak	5	Log/Pole	12			White Oak	High	10 - 20 feet	10 - 20 feet
	Jack Pine	90	Pole/Log	9	60		Black/Red (Hybrid) Oak	Low	10 - 20 feet	10 - 20 feet

Stand	Level 4 Cover Type			Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
<b>54</b>	4119 - Mixed Northern Hardwoods			Sapling Medium	10.8	27	1-50	N/A	2025- Clumps of mature aspen but predominantly Cherry and jack pine filling in the barrens. 2015-Clearcut in 1999. Heavy deer browse.
	Canopy Species	% Cover	Size Class	DBH Age					
	Red Maple	10	Pole/Sapling	6					
	Quaking Aspen	10	Log/Pole	10					
	Black/Red (Hybrid) Oak	5	Sapling	2					
	Jack Pine	10	Sapling/Pole	4					
	Black Cherry	65	Sapling/Pole	3 27					
<b>55</b>	4131 - Aspen, Oak			Sapling Well	6.2	18	Immature	N/A	2025- Stand has regenerated well. Slightly less stocking on the north end. 2015-Cut October 2008 as part of Smith Hill Oak, 61-602-07-01, Mid-Michigan Logging, clearcut with 2" spec. Left a few overstory oak and pine. Heavy browse on the oak seedlings < 3' tall. There were problems with bullets in the trees that were not picked up by metal detectors. Sale notes state that this 2007 sale was set up before retention guidelines went into effect.
	Canopy Species	% Cover	Size Class	DBH Age					
	Red Maple	30	Sapling	2 18					
	Bigtooth Aspen	45	Sapling	2 18					
	Black/Red (Hybrid) Oak	20	Sapling	2 18					
	Red Pine	5	Sapling	1					
<b>57</b>	6112 - Lowland Aspen			Poletimber Medium	1.6	68	Unspecified	N/A	2015-Burned in Range 9 fire, May 2010. Narrow stand bisected by an intermittent drainage and wettest at western end.
	Canopy Species	% Cover	Size Class	DBH Age					
	Red Maple	20	Log/Pole	10					
	Quaking Aspen	50	Pole/Log	8 68					
	Northern White Cedar	2	Pole/Log	8					
	Red Pine	8	Log	14					
	Jack Pine	5	Pole	8					
	Black Cherry	15	Pole	6					
<b>58</b>	330 - Low-Density Trees			None	2.1			No	Small opening with lots of disturbance.
<b>60</b>	42220 - Natural Jack Pine			Poletimber Well	22.7	66	51-80	N/A	2015-Variable stand that serves as buffer for training area. From 2005 KGR comments: Portions of the stand may have hazards in the form of military ordnances. Some were found in this area in 1998.
	Canopy Species	% Cover	Size Class	DBH Age					
	Black/Red (Hybrid) Oak	20	Log	12					
	Jack Pine	80	Pole	8 66					
<b>61</b>	4122 - Oak, Pine			Sawtimber Well	41.9	106	51-80	N/A	2025- Mature oak component in the southend. Quite a bit of oak regen present. Individual and pocket mortality in the oak. Rolling terrain. Some Pockets of pole sized oak. More of air jack pine component in the northend. 2015-Variable stand, poor quality. More diverse at edges. Patchy BA; parts have open canopy with 10-20' oak saplings. Moderate jack pine mortality. Mostly flat terrain.
	Canopy Species	% Cover	Size Class	DBH Age					
	White Oak	15	Log/Pole	10 106					
	Bigtooth Aspen	5	Pole/Log	9					
	Black/Red (Hybrid) Oak	45	Log/Pole	12 106					
	Red Pine	10	Log/Pole	11					
	Jack Pine	25	Pole	6 60					

Stand	Level 4 Cover Type			Size Density		Acres	Stand Age	BA Range	Managed Site			General Comments
<b>63</b>	4126 - White, Black, N. Pin Oak			Sawtimber Medium		20.5	99	51-80	N/A			2025- Stand has lots of vertical structure with a healthy crop of oak regen in the understory. Areas of pole size oak. 2015- Variable, diverse stand. Scrubby stand with significant mortality. Most flat with some small canopy gaps.
	Canopy Species	% Cover	Size Class	DBH	Age				Sub-Canopy Species	Density	Avg. Height	Size
	Red Maple	5	Pole	7	58				White Oak	Medium	5 - 10 feet	5 - 10 feet
	White Oak	30	Log/Pole	10	99				Red Maple	Low	5 - 10 feet	5 - 10 feet
	Quaking Aspen	10	Pole	8	58				Red Pine	Trace	5 - 10 feet	5 - 10 feet
	Bigtooth Aspen	5	Pole	8	58				Black/Red (Hybrid) Oak	Medium	10 - 20 feet	10 - 20 feet
	Black/Red (Hybrid) Oak	35	Log/Pole	12	99				White Pine	Trace	5 - 10 feet	5 - 10 feet
	White Pine	2	Log/Pole	10								
	Red Pine	3	Log/Pole	10								
	Jack Pine	10	Pole	7	58							
<b>64</b>	42220 - Natural Jack Pine			Sapling Medium		9.5	26	Immature	N/A			2015-Opening that is filling in with very limby jack pine. Stocking is variable. Opening continues into adjacent compartments.
	Canopy Species	% Cover	Size Class	DBH	Age				Sub-Canopy Species	Density	Avg. Height	Size
	Black/Red (Hybrid) Oak	10	Sapling	2					Black/Red (Hybrid) Oak	Low	5 - 10 feet	5 - 10 feet
	Jack Pine	90	Sapling/Pole	3	26				White Pine	Trace	5 - 10 feet	5 - 10 feet
<b>65</b>	4126 - White, Black, N. Pin Oak			Sawtimber Well		24.7	92	51-80	N/A			2025- A few clones of aspen but dominated by oak. Pockets of Oak and pine establishing in the understory. 2015- Variable stand with fuzzy edges. Generally low quality. Small canopy gaps and multiple roads and trails as though this stand receives heavy training use. Jack pine mostly at edges and NW and SE corners.
	Canopy Species	% Cover	Size Class	DBH	Age				Sub-Canopy Species	Density	Avg. Height	Size
	Red Maple	10	Pole/Sapling	6					Black/Red (Hybrid) Oak	Low	5 - 10 feet	5 - 10 feet
	White Oak	20	Pole/Log	8					White Pine	Trace	5 - 10 feet	5 - 10 feet
	Bigtooth Aspen	15	Pole/Log	9					White Oak	Medium	5 - 10 feet	5 - 10 feet
	Black/Red (Hybrid) Oak	48	Log/Pole	12	92				Red Pine	Trace	5 - 10 feet	5 - 10 feet
	Red Pine	2	Log	12								
	Jack Pine	5	Pole/Sapling	6								
<b>66</b>	4126 - White, Black, N. Pin Oak			Poletimber Well		10.5	91	111-140	N/A			2025- seeing some mortality in the western part of the stand. Oak regenerating in the areas of dieback. 2015 -Stand transitions between pine stand to south and aspen/oak to north. Distinctive because it has an understory of older and variably sized red pine and white pine (dbh ~4-8"). Gentle slope. Heavy browse.
	Canopy Species	% Cover	Size Class	DBH	Age				Sub-Canopy Species	Density	Avg. Height	Size
	White Oak	20	Log/Pole	10	91				Black/Red (Hybrid) Oak	Low	5 - 10 feet	5 - 10 feet
	Bigtooth Aspen	15	Pole	8					White Pine	Medium	Variable	Variable
	Black/Red (Hybrid) Oak	55	Log/Pole	13	91				Red Pine	Trace	Variable	Variable
	White Pine	5	Pole/Log	9					White Oak	Low	< 5 feet	< 5 feet
	Red Pine	5	Pole/Sap/Log	8								
<b>67</b>	4122 - Oak, Pine			Sawtimber Well		16.8	91	51-80	N/A			Variable stand. Medium-quality oak with pockets of jack and other pine spp. Average BA is 76 sf/acre. Relatively dense oak understory, 1-2' tall but heavily browsed. More oak regeneration in southern part of stand. Rolling hills.
	Canopy Species	% Cover	Size Class	DBH	Age				Sub-Canopy Species	Density	Avg. Height	Size
	Red Maple	5	Pole	6					White Oak	Medium	5 - 10 feet	5 - 10 feet
	Red Oak	35	Log/Pole	12	91				Black/Red (Hybrid) Oak	Low	5 - 10 feet	5 - 10 feet
	White Oak	25	Log/Pole	10					White Pine	Low	Variable	Variable
	White Pine	15	Log/Pole	10					Red Pine	Trace	5 - 10 feet	5 - 10 feet
	Red Pine	5	Log	10								
	Jack Pine	15	Pole/Log	8								

Stand	Level 4 Cover Type			Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
70	4126 - White, Black, N. Pin Oak			Sawtimber Medium	12.0	116	51-80	N/A	2025- Some top dieback in the canopies as well as pocket and individual mortality. Oak establishing in the understory. 2015- Poor quality and greater mortality than other oak stands in this compartment. Heavy browse. Gentle slopes.
	Canopy Species	% Cover	Size Class	DBH Age					
	White Oak	35	Log/Pole	10	116				
	Black/Red (Hybrid) Oak	50	Log/Pole	12	116				
	White Pine	5	Log/Pole	10					
	Red Pine	5	Log/Pole	10					
	Jack Pine	5	Pole	8					
72	4199 - Other Mixed Upland Deciduous			Sapling Well	90.4	6	1-50	N/A	2025- Oak regeneration seems to be the most dense where the Over story is thicker. Heavy deer browse has Kept the majority of the oak regen below 5'. 2020-Final harvest in 2020. Yotta Oak, 61-654-17. Also chipped. Cut everything except red pine, white pine and white oak. 2017: Fair quality oak with heavier aspen in some parts. White pine in understory is heavier along the northern aspect slopes along the north edge of the stand. Red maple may have been removed from part of stand in the mid-1990s. Average BA is 88 sf/ac. Some oak mortality and heavy browse. Rolling hills with a local summit of 1,255' south of road.
	Canopy Species	% Cover	Size Class	DBH Age					
	Red Maple	22	Sapling	1	6				
	White Oak	20	Log/Pole	10	111				
	White Oak	20	Sapling	1	6				
	Bigtooth Aspen	18	Sapling	1	6				
	Black/Red (Hybrid) Oak	15	Sapling	1	6				
	White Pine	3	Pole/Sap/Log	7					
	Red Pine	2	Pole/Sap/Log	8					
73	4124 - Red with White Oak			Poletimber Well	22.4	51	51-80	N/A	2025- Healthy looking StandBAs: 80, 60, 100, 90. 2015- Some stems just reaching pole size. Multi-stem red oak and red maple. Variable stand. White pine is heavier in some pockets.
	Canopy Species	% Cover	Size Class	DBH Age					
	Red Maple	25	Pole/Sapling	5	51				
	Red Oak	40	Pole/Sapling	6	51				
	White Oak	20	Sapling/Pole	4	51				
	White Pine	10	Pole	8					
	Red Pine	5	Pole	7	51				