

# **Compartment Review Presentation**

**Grayling Forest Management Unit** 

Compartment 72251 Entry Year 2021 Acreage: 1,757

County Crawford

Management Area: Camp Grayling

Revision Date: 2019-07-03

Stand Examiner: Scott McClarren

**Legal Description:** 

T28NR2W Sections 31, 32 and 33

## **Identified Planning Goals:**

To provide an area that allows for National Guard training while maintaining forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment.

## Soil and topography:

Topography within this compartment is flat to gently rolling with ridges to the east of Jones Lake and around the southern portion of KP Lake. The major soil complex present in this area is Grayling sand with small inclusions of other types present, the most notable being Graycalm-Klackling sands. This association is found primarily on upland flats and low knolls which are dominated by jack pine stands commonly in association with red pine and oak species. This soil complex is characterized as being excessively drained with major management concerns including equipment limitation, seedling mortality and erosion from wind and water. Wind throw is also a concern throughout this soil type complex. The bottomlands of this compartment, mainly to the west of Jones Lake, are made up of Tawas-Lupton Muck, Dawson-Loxley Peat and Leafriver Muck associations. These soil complexes are characterized as being poorly drained and are most often associated with a water course or water body. Major management concerns in these areas include equipment limitation, windthrow and seedling mortality.

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

Compartment 251 is surrounded by a great deal of state land, much of which is used for military training activities. The compartment is comprised of Military Board Lands intermixed with lands leased to the National Guard under L-1479, a long-term lease agreement with the Michigan National Guard, Department of Military Affairs. The agreement provides for use by the military during their encampment, with no permanent buildings or improvements to be erected. Military needs take precedence over resource management needs on long-term lease lands. The DNR will coordinate all prescribed activities with the National Guard to ensure they are compatible with military training needs.

Recreational use is moderate within the compartment throughout the year. During the winter months snowmobile use is heavy as trail #47 traverses the compartment. During the summer and fall, hunting and fishing opportunites are plentiful in the area. Jones Lake State Forest Campground offers camping and a boat launch.

#### **Unique Natural Features:**

Both Jones Lake and KP Lake are located within this compartment. Each provide a unique fishing opportunity as well as excellent wildlife habitat.

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

There are three archaeological sites located within this compartment, however all three have been previously determined to be not significant and do not need to be avoided during any treatments in this compartment.

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

There is potential for dry prairie plants in grassy openings to include pine barren's species of Hill's thistle, rough fescue, Alleghany plum and Pale Agoseris. There also is potential for pine barren's species including dusted skipper, grizzled skipper and red-legged spittlebug to be present in these openings. Warbler species will be found in the young jack pine stands that abound in this region. There is also the potential for Eastern Massasauga rattler, wood turtle and loon to exist within the riparian zones of this compartment. Bald Eagle have been documented in this area.

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

Jones Lake, KP Lake and the surrounding wetlands comprise the watershed/fisheries concerns within this compartment. Jones Lake is managed as a quality fishing lake and is closed to fishing during the winter months and has good populations of largemouth bass, northern pike, and bluegill, and has Quality Non-Trout Fishing Lake regulations. These regulations include catch-and-release only fishing, artificial lures only, and an abbreviated fishing season. The lake drains into the East

Branch of the AuSable river, a designated trout stream natural river. KP Lake is surrounded by mainly private ownership and has populations of largemouth bass, bluegill, and yellow perch. Forest Management adjacent to each of these water bodies has and should continue to take into account Best management practices. Riparian areas for wildlife habitat and the maintenance of water quality should be the primary goal of forest management adjacent to both KP Lake and Jones Lake.

#### Wildlife Habitat Considerations:

This compartment is valuable for many species of wildlife. Jack pine plantations that are dense and large in terms of acreage provide tracts of land used for thermal and protective cover throughout the year by many wildlife species. The river corridor and surrounding swamps also provide large tracts of uninterrupted land used by a variety of wildlife species for breeding and nesting, protection from predators and forage grounds. Management decisions within this compartment are influenced greatly by wildlife considerations.

## Mineral Resource and Development Concerns and/or Restrictions

The Bud Hill sand pit is located in Section 31 and is currently leased to the DMVA. There is good potential for additional sand & gravel within the compartment. The nearest oil & gas production, past or present, is more than three miles to the northwest. There is no history of oil & gas leasing within the compartment, and oil & gas potential is considered low at this time. There is no known metallic mineral potential in this part of the state. The state does not own all mineral rights within the compartment. Because the mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

#### **Vehicle Access:**

Access to this compartment is good with CR-612 bordering the north side of the compartment. County roads of Stephan Bridge Rd and Jones Lake Rd lead south of CR-612 with state forest two-tracks extending to remaining areas within the compartment. KP Lake Road, a county road, runs through the west portion of the compartment and provides primary access for most residents living around KP Lake. The compartment also contains one of Camp Grayling's designated tank trails.

#### **Survey Needs:**

Further surveying needs to be done in the SESW of Section 32. A small parcel of private land exists here and the boundary lines are not delineated at this time.

# **Recreational Facilities and Opportunities:**

Jones Lake SF Campground and access site exists within the compartment and provides a great deal of recreational opportunities including camping, fishing and swimming. KP Lake Access Site also provides an opportunity to access KP Lake for fishing, boating and swimming. Lovell's Snowmobile trail #47 traverses the length of the compartment.

## **Fire Protection:**

Fire protection is considered in this area because of its close proximity to large jack pine plantations and its tendency for quite droughty soils. Many of the management decisions within this compartment are based on and influenced by the stands probability to be a fire hazard before and after treatment.

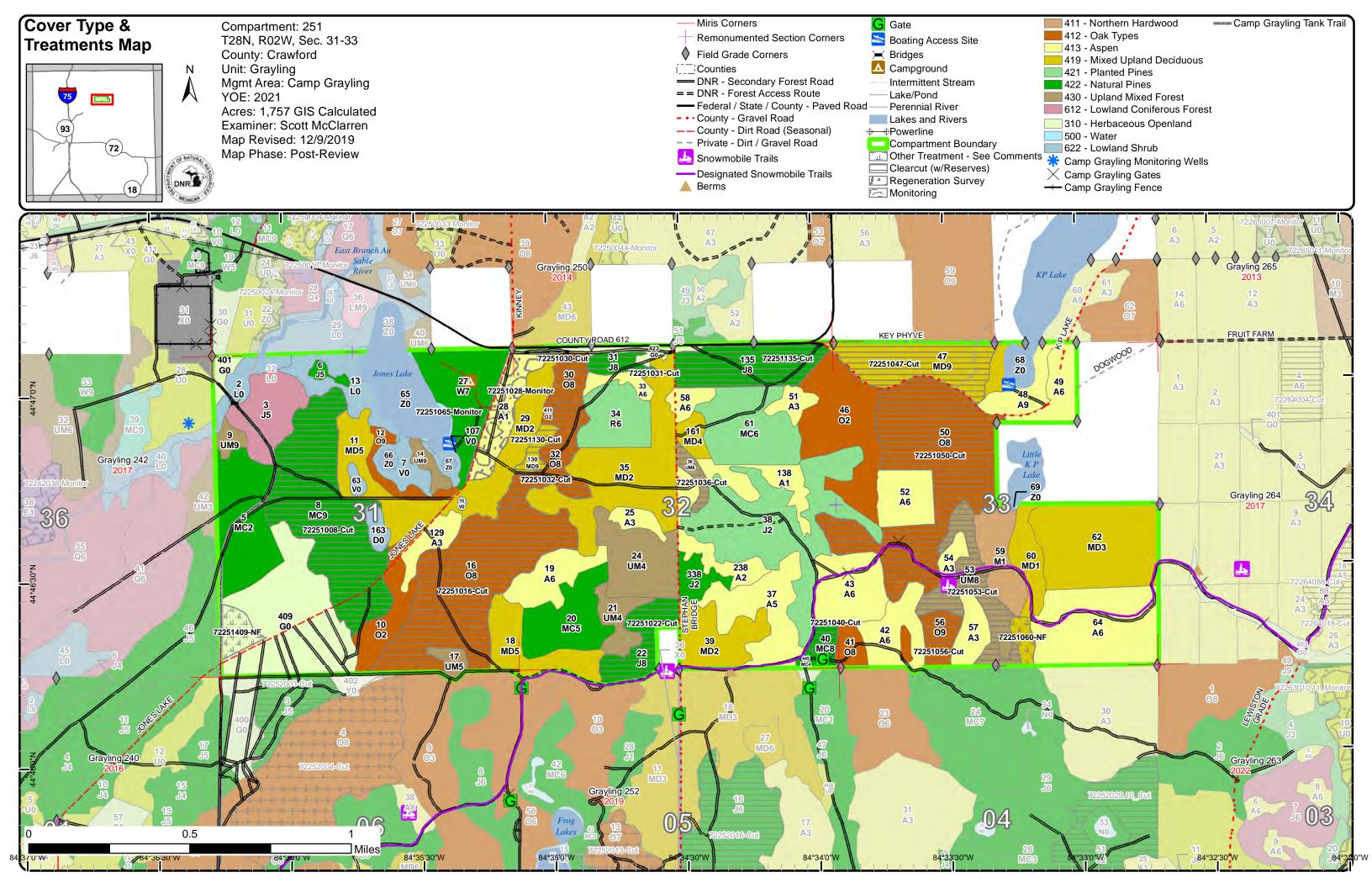
#### **Additional Compartment Information:**

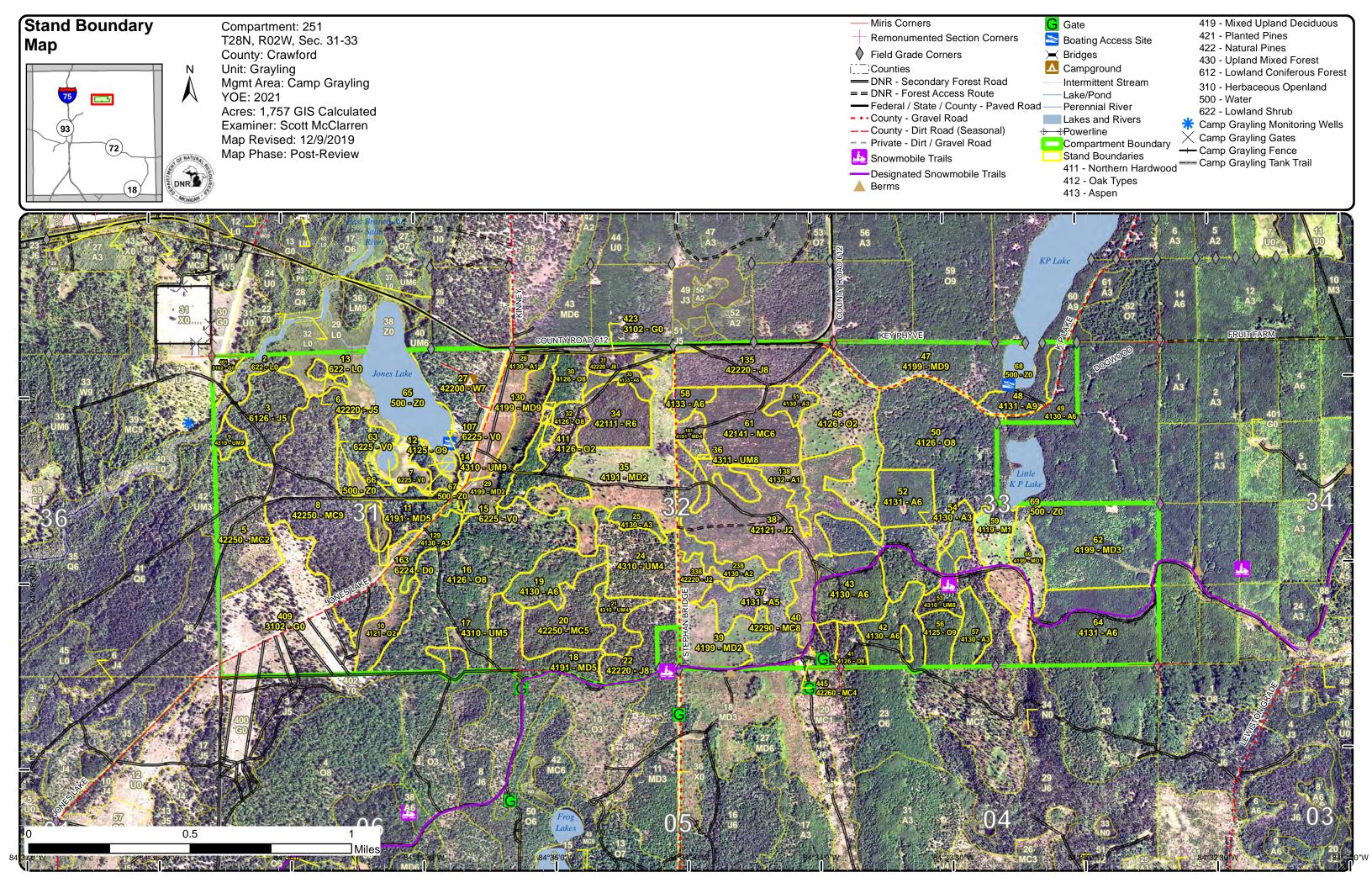
The following reports from the Inventory are attached:

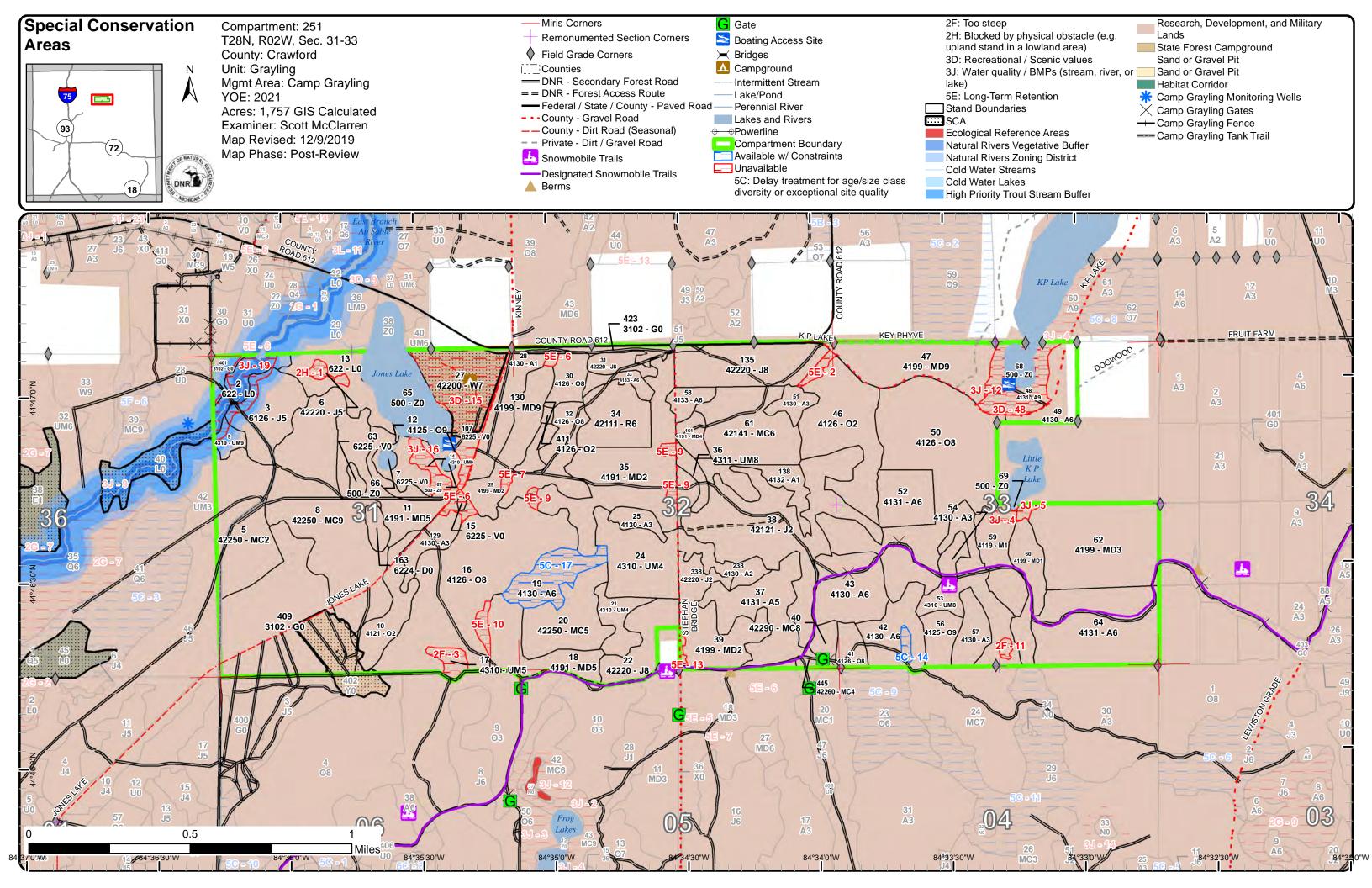
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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







**Grayling Mgt. Unit** 

Scott McClarren : Examiner

Compartment 251 Year of Entry 2021



# Age Class

	₹g.	Kon C	\$ / Q	\$ \f	P K	3 / 4		3/8		\$ \ \$	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		"a"	Ø. / &.			Ok / S	R REE	TO'S
Aspen	0	21	55	53	159	0	20	0	14	0	0	0	0	0	0	0	0	0	322
Bog	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Herbaceous Openland	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98
Jack Pine	0	0	89	28	0	0	0	44	23	0	0	0	0	0	0	0	0	0	184
Lowland Shrub	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Mixed Upland Deciduous	0	142	62	7	54	0	0	0	0	51	0	0	0	0	0	0	0	0	316
Natural Mixed Pines	0	0	45	0	0	0	33	0	6	91	0	0	0	0	0	0	0	0	175
Northern Hardwood	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Oak	0	71	1	0	0	0	0	7	32	231	0	0	0	0	0	0	0	0	342
Planted Mixed Pines	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Red Pine	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Treed Bog	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Upland Mixed Forest	0	0	0	0	33	12	5	6	37	5	0	0	0	0	0	0	0	0	98
Water	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
White Pine	0	0	0	0	0	0	0	0	39	0	0	0	0	0	0	0	0	0	38
Total	196	256	252	153	246	12	58	57	151	378	0	0	0	0	0	0	0	0	1757



# **Report 2 – Treatment Summary**

# Grayling Mgt. Unit Year of Entry: 2021

Acres of Harvest

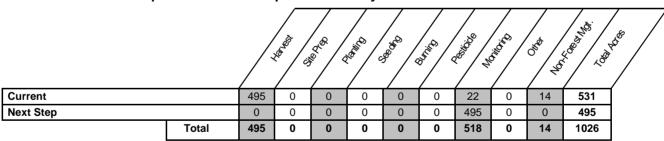
Compartment 251
Total Compartment Acres: 1,757

Commercial Harvest - 495 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

# **Cover Type by Harvest Method**

	3, 1 3, 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1											
							Donolo L	THE PARTY OF THE P	ROUGH O	**************************************		<del> </del>
Jack Pine		65	0	0	0	0	0	0	0	0	65	
Mixed Upland Deciduous		46	0	0	0	0	0	0	0	0	46	
Natural Mixed Pines		98	0	0	0	0	0	0	0	0	98	
Oak	_	251	0	0	0	0	0	0	0	0	251	
Upland Mixed Forest		36	0	0	0	0	0	0	0	0	36	
	Total	495	0	0	0	0	0	0	0	0	495	

# **Proposed and Next Step Treatments by Method**



S t а n

d

**Treatment** Name

Acres

Stand CoverType

Size Density

Stand Age

BA Range **Treatment** Type

**Treatment** Method

Cover Type Objective

Compartment: 251

Year of Entry: 2021

Age Structure Habitat Cut

#### **Approved Treatments:**

72251008-Cut 91.4 42250 - Pine, Oak Sawtimber 51-80 Harvest Clearcut with 4199 - Other Even-Aged No Well Retention Mixed Upland

Deciduous

<u>Prescription</u> Clearcut with retention. Place some retention along the lowland areas and strategically around the tank trail to deter military use in stand. Specs: May need more than 3% retention to achieve all this. Retain all white oak. Protect advanced regeneration. Add military specs. Oak wilt spec.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Oak is the desired species, but any combination of oak (25-35%), maple, or pine is acceptable. Expect minimal stocking in this stand.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2020

72251016-Cut 98.3 4126 - White, Sawtimber 85 1-50 Harvest Clearcut with 412 - Oak Types Even-Aged Nο Black, N. Pin Oak Medium Retention

Prescription Clear cut with retention. Don't harvest the long-term retention area that was established in the previous cutting. Add military specs,

Specs: snowmobile specs, and oak wilt spec.

Monitoring, Natural Regen (Re-Inventory) Next Step

**Treatments:** 

Acceptable Oak is the desired species, but any combination of oak, maple, aspen, or pine is acceptable.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2020

72251022-Cut 20.8 42220 - Natural Sawtimber 73 51-80 Harvest Clearcut 4199 - Other Even-Aged No Mixed Upland Jack Pine Medium Deciduous

Prescription Clearcut except leave all white oak and X-log size trees. Add military specs and snowmobile specs. Protect advanced regen.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Oak is the desired species, but any combination of oak (25-35%), maple, aspen, or pine is acceptable. Expect minimal stocking after harvest

Regen:

Other Comment:

Site Condition

Comment:

Site Condition

Proposed Start Date: 10/1 /2020

72251032-Cut 22.8 4126 - White, Sawtimber 78 51-80 Harvest Clearcut 412 - Oak Types Even-Aged No Black, N. Pin Oak Medium

Clearcut except leave white oak 6" and below at DBH and leave white oak greater than 16" DBH. Retain super-canopy pine. Protect oak <u>Prescription</u> seedlings/saplings. Add military specs. Oak wilt spec. Specs:

Monitoring, Natural Regen (Intermediate) Next Step

**Treatments**:

Acceptable Oak is the desired species, but any combination of oak maple, aspen, or pine is acceptable.

Regen:

Other Leaving 6 inch and below white oak will hopefully add structural diversity to stand while not impeding release of saplings. It should also Comment: reduce the visual impact as well.

Site Condition

S t		Grayling	Mgt. Unit	1	Repo	rt 3 1	Treatments		Compartmer Year of Entr	/	DNR
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habita Cut
36	72251036-Cut	5.4 43	311 - Pine, Aspen Mix	Sawtimbe Medium	r 71	51-80	Harvest	Clearcut	413 - Aspen	Even-Aged	No
Pres Spe		it without re	etention due to size	of stand a	nd ope	rability. M	ilitary specs. Gro	ouse spec.			
	tt Step Monitor atments:	ing, Natura	ıl Regen (Re-Invent	ory)							
Acce Reg		s the desire	ed species, but any	combinati	on of a	spen, maj	ole, oak, or pine	is acceptable.			
Othe Com	<u>er</u> nment:										
Site	Condition										
	posed Start Date:	10/1 /202	20								
40	72251040-Cut	6.2	42290 - Natural Mixed Pine	Sawtimbe Medium	r 73	51-80	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Even-Aged	No
Pres Spe		it no retenti	on. Protect oak see	edlings/sap	olings. <i>I</i>	Add militai	ry specs and oal	k wilt spec.			
	<u>t Step</u> Monitor atments:	ing, Natura	ıl Regen (Re-Invent	ory)							
					of oak	(25-35%)	, maple, aspen,	or pine is accepta	ble.		
Trea	eptable Oak is t	the desired	species, but any c	ombinatior	i Ui Uak	,		·			
Acce Reg	eptable Oak is t gen:	the desired	species, but any c	ombinatior	I OI Oak	. ,	, , , , ,				
Acce Reg Othe Com	eptable Oak is t gen: er	the desired	species, but any c	ombinatior	I OI OAN						
Acce Reg Othe Com	eptable Oak is t gen: er nment:			ombination	TOT Oak		, , , , ,				

specs and oak wilt spec. Protect advanced regeneration and oak seedlings.

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

<u>Acceptable</u> Oak is desired species, but any combination of oak (25-35%), aspen, maple, or pine is acceptable. <u>Regen:</u>

<u>Other</u> Comment:

Site Condition

S t a		Graylin	g Mgt. Unit	1	Repo	rt 3 <sup>-</sup>	Treatments		Compartmen Year of Entry		DNR DNR
n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
50	72251050-Cut	109.0	4126 - White, Black, N. Pin Oak	Sawtimbe Medium	r 87	51-80	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Even-Aged	No
Pres Spec		ıt except l	eave all white oak. I	Protect adv	anced i	regenerati	on. Add military	specs, snowmobil	e specs, and oak	wilt spec.	
	Step Monitor	ing, Natu	ral Regen (Re-Inven	ntory)							
Acce Rege		the desire	ed species, but any o	combination	n of oak	(25-35%	), maple, aspen	, or pine is accepta	ble.		
Othe Com	<u>er</u> North e <u>iment:</u>	ast prope	erty corner not locate	ed, however	bound	lary is unn	nanaged military	y board purchased	land.		
Site	Condition										
Prop	osed Start Date:	10/1 /20	020								
53	72251053-Cut	30.3	4310 - Pine, Oak Mix	Sawtimbe Medium	r 70	51-80	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Even-Aged	No
Pres Spec			leave all white oak a	ind super ca	anopy p	oine if four	nd. Add military	specs, grouse spe	cs, and oak wilt sp	oec. Protect a	dvanced
	Step Monitor	ing, Natu	ral Regen (Re-Inven	ntory)							
Acce Rege		the desire	ed species, but any o	combination	of oak	(25-35%	), maple, aspen	, or pine is accepta	ble.		
Othe Com	e <u>r</u> iment:										
Site	<u>Condition</u>										
Prop	osed Start Date:	10/1 /20	020								
56	72251056-Cut	10.7 4	4125 - Black, N. Pin Oak	Sawtimbe Well	r 82	141- 170	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Even-Aged	No

 $\frac{Prescription}{Specs:} \ \ Clearcut \ no \ retention \ except \ leave \ all \ white \ oak. \ Add \ military \ specs \ and \ oak \ wilt \ spec. \ \\ \underline{Specs:}$ 

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

Acceptable Oak is the desired species, but any combination of oak (25-35%), maple, aspen, or pine is acceptable.

Regen:

Other Comment:

Site Condition

Grayling Mgt. Unit Report 3 -- Treatments Compartment: 251 S Year of Entry: 2021 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat n Method Objective Density Range Structure Name CoverType Age Type Cut d 409 72251409-NF 8.3 3102 - Grass Nonstocked Unspec NonForestMgt Other - Specify 310 -No Herbaceous ified Openland Prescription Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing, Specs: brushing, tree and shrub planting and herbicide application. Next Step Treatments: Acceptable Regen: **Other** Firing point 600. This maintenance will be carried out through a partnership between the Military, DNR-WLD and the National Wild Turkey Comment: Federation. Site Condition

Total Treatment 531.1 Acreage Proposed:

Compartment: 251

**Grayling Mgt. Unit** 

Year of Entry: 2021 **Scott McClarren: Examiner** 

**Availability for Management** Total Acres Avail Acres Dominant Site Conditions

Total	Acres	Acres Avail	Acres	U	omınaı	nt Site	Cond	ditions	5	
Acres	Available	With Condition	Not Available		5C	2F	2H	3D	3J	5E
322	288	20	14	Aspen	20			14	0	0
17	16	0	1	Bog						1
97	97	0	1	Herbaceous Openland					1	0
185	179	0	6	Jack Pine			3		4	0
33	23	0	10	Lowland Shrub			0		10	0
317	300	0	17	Mixed Upland Deciduous	0				7	10
176	176	0	0	Natural Mixed Pines						
22	19	0	2	Northern Hardwood					2	
341	334	2	5	Oak	2	0		0		5
40	40	0	0	Planted Mixed Pines						
25	25	0	0	Red Pine						
5	5	0	0	Treed Bog						
97	84	0	13	Upland Mixed Forest		6			7	
43	43	0	0	Water				0	0	
38	0	0	38	White Pine				38		0
1,758	1,628	22	108	Total Forested Acres	22	6	3	53	30	16
	93%	1%	6%	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	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Small upland stand :	surrounded by lowland.					
2	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						

# **Report 4 – Site Conditions**

Grayling Mgt. Unit

Scott McClarren : Examiner

3	Unavailable	2F: Too steep	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Long-term retention	n associated with timber sale, Ar	rea 251	(72-625-11)			
7	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
9	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
10	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Long term retention	n associated with timber sale, Ar	ea 251	(72-625-11)			

# Report 4 - Site Conditions

Compartment: 251

Grayling Mgt. Unit

Scott McClarren : Examiner Year of Entry: 2021

11	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Ory kettle formation	with inoperable slopes.					
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	6	5E: Long-Term Retention	3D: Recreational / Scenic values	Unspecified	Unspecified
	Comments: .ong-term retention	n for stand 47.					
3	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: ong term retention	n associated with stand 39 sale	#72-61(	)-11.			
14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: .ong-term retention	n associated with stands 56 and	l 42				
15	Unavailable	3D: Recreational / Scenic values	39	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: ones Lake Campo	ground					
	Unavailable	3J: Water quality / BMPs	6	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
16		(stream, river, or lake)		Sceriic values			

# **Report 4 – Site Conditions**

**Grayling Mgt. Unit** 

Compartment: 251 Year of Entry: 2021 **Scott McClarren : Examiner** 

17	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	20	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
19	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	15	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Ausable River, Nat	ural River Buffer					
48	Unavailable	3D: Recreational / Scenic values	14	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						

12/9/2019 1:07:46 PM - Page 4 of 4 TONELLOM1 Mgt. Unit

Compartment: #Type! Year of Entry:

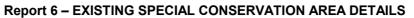


# Report 5 – PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* 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
Comments				

Grayling Mgt. Unit Compartment: 251
Year of Entry 2021





\* 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.

Conservati Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen condition stocked trout populations and those of other coldwater fish speci conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	es to persist from year to year. Suitable by are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	es (e.g., slimy sculpin) to persist from se conditions due to substantial
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for include the 5,847 acre Forest Fire Experiment Station, the 12,000 Area, the Beaver Islands Archipelago Wildlife Research Area (the High and Hog Islands, all state owned land on Beaver, South Fow Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research, and over 144,000 acres of Military Lands.	0 acre Houghton Lake Wildlife Research at includes most of Garden Island, all of x and North Fox Islands), the Cusino
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their effect as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, liversity of plants and wildlife. Riparian cts on water quality and quantity, as well
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from sp approved distance from the river centerlines. The Natural Rivers most Natural Rivers. The Vegetative Buffer ranges from 25 to 10 and Vegetative Buffers for each Natural River see the table locat folder.	Zoning District is a 400 foot buffer for 00 feet. To view specific Zoning Districts



Stand	Level 4 Co	over Type	5	Size De	nsity	Acres	Stand Age	BA Range	Managed Site	General Comments
2	622 - Low	rland Shrul	0	Nonsto	ocked	11.7	0		No	Mostly tag alder wetland associated with the Ausable river. Some mature timber along the upland transitions and also some isolated pockets of trees in the north side of stand. Stand falls with in Natural River Buffer.
										Old Comment-OPIC - FMD: Thick lowland brush throughout stand. Overstory made up mostly of birch/tamarack/black ash along with some aspen and white pine. Pockets of spruce fir add to diversity and create some very thick pockets which seem to attract numerous wildlife species as a source of cover. Stand is difficult to access, most of inventory done within 200yds of bridge. (old comment) Includes the East Branch of the AuSable R. New wooden stress bridge for tanks in place. SW corner of stand is W7W2M1 it runs down into stand 5.
3	6126 - Lowla	and Jack F	Pine Pol	etimbei	Medium	28.0	27	1-50	N/A	Variable stand consists mostly of lowland jack pine with pockets of
(	Canopy Species	% Cover	Size Class	DBH	l Age					spruce and red pine and white pine mixed in. More white pine than jack pine southwest of road. White pine and red pine must not have been cut
	Jack Pine	57	Pole/Sapling	5	27					in the last harvest and are 50-60 years old. White pine and red pine don't
	White Pine	15	Log/Pole	12						occupy enough of the canopy to call the stand 2 aged.
	Red Pine	7	Log/Pole	10						Old Comment-OPIC - FMD: J2/J3 stand that was left to naturally
	Black Spruce	10	Pole	8						regenerate after harvest in 1992. Stand is progressing ok however not fully stocked. Some moist ground evidenced by leatherleaf/blueberry, also dry in spots. Stand seems to provide a good example of jack pine barren area being lightly stocked with openings established with grass and other groundcover species. (no old comment)
5	42250 - 1	Pine, Oak	S	apling N	Medium	44.9	17	Immature	N/A	Patchy composition in north side of stand with some large pockets of
	Canopy Species	% Cover	Size Class	DBH	l Age					quacking aspen. Most of stand is oak and jack pine. White pine saps must have been protected at time of harvest as they have a jump on the
	Jack Pine	53	Sapling	2	17					competition. Some scattered mature oaks present. Southeast corner of
Black	k/Red (Hybrid) Oak	30	Sapling	2						stand is poorly stocked.Old CommentOPIC - FMD: Very mixed stand
	White Pine	7	Pole	6						in the process of regenerating. Typed/called stand O3 however pockets of aspen exist along with JP, RM, WP and overstory oak that were left as
										a buffer as well as to discourage tank use within stand. Some areas look like they were planted to JP however this was difficult to determine at time of inventory, may be natural regeneration. Overall a nice stand that is most likely going to develop into a mixed stand consisting of the species mentioned above. (old comment) Cut with stand 32 comp 242 this entry year, mixture of limby oak patch by the trail, J7J4A1W1 to North end in wetter soil. Tank trail runs through this stand. Leave a buffer of trees and regeneration along the south edge to establish a north boundary for stand 9 to prevent tanks from migrating into the regenerating cut area. Cutting specs to say leave 4 inches and less DBH, and a couple patches of oak. Timber Sale #72-042-01-01 Briggs Convoy Trail



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age E	BA Range	Managed \$	Site	General Comments
6	42220 - Natu	ural Jack P	ine Po	oletimbei	Mediur	n 2.6	76	81-110	N/A		Merged stand 1 with stand 6, strip of trees immature trees connects the islands. Saved old comments from stand 1 below.
	Canopy Species	% Cover	Size Class	DBH	Age						islands. Saved old comments nom stand 1 below.
	Jack Pine	65	Log/Pole	10	76						Old Comments- (Stand 1 Jack Pine island within stand 13. Jack pine is
	White Pine	23	Log/Pole	10							growing well with good form and descent height. Moist understory with
	Quaking Aspen	10	Pole/Log	8							bog/wetland indicator species including leatherleaf. Some spruce/fir along edges of stand with occasional blueberry on hummocks. Nice
											secluded stand of mature jack pine. (old comment) One of two islands of JP west of Jones lake and campground.). (Stand 6 J6 island, very similar to stand 1, slightly larger in area. JP is in good shape, growing well. Nice secluded stand, difficult to get to. Lots of wildlife use, some areas of moist understory. (old comment) One of two islands of JP visible from Jones lake and campground.)
7	6225	- Bog		Nonsto	cked	9.9			No		See old comments.
											Old Comments- (OPIC - FMD: Bog with low L-type shrubs throughout. Small spruce/fir island in southern portion. Areas of standing water along with hummocks that have established dense grasses on them. Some small snags of birch and jack pine around perimter indicating fluctuating water tables/levels within stand. (no old comment))
8	42250 -	Pine, Oak		Sawtimb	er Well	91.4	81	51-80	N/A		Jack pine and oak mortality present in stand. Some small lowland niclusions in and around stand.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	inclusions in and around stand.
	Jack Pine	53	Log/Pole	10	81	Black/Red	d (Hybrid) Oak	Medium	10 - 20 feet	Sapling	Old Comment-OPIC - FMD: Mixed stand with jack pine and mixed oak
	Red Pine	6	Log	12		Wh	ite Pine	Trace	5 - 10 feet	Sapling	being dominant. Jack pine size varies throughout stand with some large
Blad	ck/Red (Hybrid) Oak	40	Log/Pole	10		Bal	sam Fir	Trace	10 - 20 feet	Sapling	individuals present in pockets. Oak is of poor quality, regen is moderate with some areas of very heavy browse. Some balsam fir, RP and Wp
						В	seech	Trace	5 - 10 feet	Sapling	present within stand in low numbers. Stand includes small R% inclusion
						Wh	ite Oak	Trace	Variable	Sapling	along tank trail in northern portion of stand. (old comment) Cutting half of the stand to the west being stand 5 along with stand 32 comp 242.
9	4319 - Mixed	Upland Fo	rest	Sawtimb	er Well	4.8	58	111-140	N/A		West side of stand falls within Nat River buffer. Some super canopy white
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	pine >26" DBH. A few of the aspen are getting over mature in west side of stand.Old Comment-OPIC - FMD: Very mixed stand including Wp,
	White Pine	35	Log/Pole	10	58	Bal	sam Fir	Medium	5 - 10 feet	Sapling	JP, RP and oak along with aspen and srpuce/fir in lower numbers.
	Quaking Aspen	30	Pole	8		Wh	ite Pine	Trace	Variable	Sapling	Spruce/fir and aspen more prevalent as you near the east branch of the
	Red Maple	24	Log/Pole	10		Tag	g Alder	Low	5 - 10 feet	Tall Shrub	ausable. Some low spots within stand, overall poor quality timber throughout, however stand is proving to be very valuable as a refuge for
		'		-				,	•	1	wildlife.



Stand	Level 4 Co	over Type	;	Size Density	Acres	Stand Age	BA Range	Managed S	ite	General Comments
10	4121 - O	ak, Aspen	S	apling Medium	20.6	6	Immature	N/A		Dense aspen in pockets and more open in others, overall looks moderately stocked. Heavy browse, but dense oak stump sprouts and
	Canopy Species	% Cover	Size Class	DBH Age						most aspen are just getting out of browse height. Heavier oak component
	Bigtooth Aspen	33	Sapling	1						to the south. Good stump sprouting resonse to harvest.
Black	k/Red (Hybrid) Oak	50	Sapling	1 6						Old Comments-(OPIC - FMD: Stand was harvested under contract 72-
	White Oak	10	Sapling	1						625-11-01, Area 251. Old Comment: Low density stand-a mixture of oak, aspen and jack pine with red and white pine present in low numbers. Overall stand is poor in terms of quality with a few pockets along SE edge that are of fair quality. JP is patchy with the majority near stands 10/16 border. Lots of mortality in all species types. Understory is slight overall with oak and cherry brush making up the majority of understory composition. Treat stand by final harvesting all trees greater than 4.5"DBH. Mark some of the highest quality white oak to leave focusing this residual near Jones Lake Rd. White oak seem to be regenerating at the highest rate within the stand so hopefully by combining some of this natural regeneration with the expected stump sprouting, regeneration will increase throguhout the stand. It can be expected that aspen pockets will develop within the stand follwing harvest and this should be encouraged. Jack pine, white pine and red maple regeneration should also be considered successful. (no old comment))
11	4191 - Mixed Upla Co	and Decidu	ous with Po	letimber Mediun	n 27.9	36	1-50	N/A		Dense pocket of aspen in northwest corner and southeast corner. 1 super canopy wp seen on north side of stand along lowland boundary.
	Canopy Species	% Cover	Size Class	DBH Age						There are a couple small lowland areas in the portion of the stand south of the tank trail.Old Comment-(OPIC - FMD: Very mixed stand of
Black	k/Red (Hybrid) Oak	43	Pole	6 36						oak/aspen with areas of J2 mainly near bog on western edge. Typed
	Jack Pine	30	Pole	7						stand as an A3 stand however there are areas that could be called O2/3.
(	Quaking Aspen	10	Pole/Sapling	6						Based on average stems/acre after quick sampling, stand seems to lean towards aspen with oak being a codominant component. Area seems to
E	Bigtooth Aspen	10	Pole	7						support higher quality aspen growth with oak being shorter and exhibiting shrubby/limby form. Some red pine scattered throughout stand as well. (old comment) STAND WAS COMMERCIALLY CUT IN 1983. O2J1 patch of A3 by main road, J2 around bog.)
12	4125 - Blac	k, N. Pin O	ak S	Sawtimber Well	8.7	74	81-110	N/A		Mostly mature oak with some old jack pine. Some white pine in northern
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	portion of stand. see old comments-Old Comments-(OPIC - FMD: Narrow stand, provides good buffer between tank trail and jones lake/bogs to the
Black	k/Red (Hybrid) Oak	80	Log/Pole	10 74	Bla	ck Cherry	Medium	Variable	Sapling	nrth. Low quality stand in terms of timber quality, however lots of snags
	Jack Pine	11	Log/Pole	12	W	hite Pine	Trace	5 - 10 feet	Sapling	and down woody debris create a nice edge and offer great wildlife habitat. (old comment) Buffer south side of lake.)
13	622 - Low	land Shrub	)	Nonstocked	21.7			No		Lowland alder between Jones Lake and the Ausable River. Tag alder and leatherleaf make up most of the herbaceous cover in this stand.Old comment-OPIC - FMD: L-stand with heavy brush. Inventoried from perimeter of stand. Lots of game trails traverse stand. Some scattered JP, tamarack and spruce/fir within stand however majority is made up of lowland bruch species.

regen scattered. Overall management objective is to release pockets of WO regeneration along with cutting some but not all aspen clones. Take out any red maple. Post sale, underplant white pine in the oak overstory part of stand. Cut oak in places in order to release WO regeneration. (old comment) Need to thin out patches of pole size aspen next time. Hilly area. If possible in the solid oak use the five spot with military

restrictions.

	Gr	t. Unit			Rep	ort 7 – Sta	ands		Compartment: 251 Year of Entry: 2021		
Stand	Level 4 Co	over Type		Size Density	Acres	Stand Age E	BA Range	Managed S	Site	General Comments	
14	4310 - Pir	ne, Oak Mix	(	Sawtimber Wel	5.6	5.6 60		N/A		See old comments- (OPIC - FMD: Somewhat mixed stand with areas of	
Ca	anopy Species	% Cover	Size Class	DBH Age	Sub-Car	nopy Species	Density	Avg. Height	Size	oak/jack pine however overall stand typed as a J6. JP is tall and growing well. Some dead standing and fallen snags provide good vertical	
Qı	uaking Aspen	15	Log/Pole	12	Wh	ite Pine	Low	5 - 10 feet	Sapling	structure and DWD. Understory is moderately stocked with oak, balsam	
	Jack Pine	38	Log/Pole	10						fir and WP being dominant. Areas of thick blueberry and bracken. There is a low area in central portion of stand that connects jones lak to the	
Black/l	Red (Hybrid) Oak	42	Pole/Log	9 60						north with bog area to the south. Looks as though during high water there may be wet areas within this pocket due to some L-type shrubs present. (old comment) North and south end solid oak type.)	
15	6225	i - Bog		Nonstocked	0.6			No		Part of long-term retention associated with Area 251 harvest (72-625-11).	
										Old Comments- (OPIC - FMD: V-type bog with some cattails around perimeter. Looks to have some small areas of seasonal standing water. Some dead standing trees within stand. Saw one woodduck within stand at time of inventory. (old comment) Two other smaller depressions to the south, starting to fill in with trees.)	
16	4126 - White, E			Sawtimber Mediu	(	85	1-50	N/A		Good oak regen through most of stand. Oak is staying below browse height in most of stand. Heavy wildlife use in stand. Hilly topography. Oak	
	anopy Species		Size Class	J.		nopy Species		Avg. Height	Size	looks to be declining throughout stand (around 10-20 BA of dead oak),	
	Red (Hybrid) Oak White Oak	47 50	Log/Pole Pole/Log	9 85		nite Oak d (Hybrid) Oak	High Medium	< 5 feet	Sapling Sapling	and more towards the north. Live BA is 48 on avg.Old Comment-OPIC - FMD: Stand harvested under contract 72-625-11-01. Oak stand	
	Wille Oak	30	1 Ole/Log	9 03		oth Aspen	Medium	5 - 10 feet	Sapling	with heavy aspen component in 5-8" range. Oak is of fair quality with	
						d Maple	Low	5 - 10 feet	Sapling	some nice stems, aspen is ok, better quality in places. Not very much regeneration throughout stand, some white pine and oak pockets, oak is	
						ed Pine	Trace	< 5 feet	Sapling	heavily browsed. Some areas of the stand are A6, this is not represente	
					Wh	ite Pine	Trace	< 5 feet	Sapling	very well through the samping of the stand. There are some large red pine on western side of stand that have seeded nicely and are now	
										surrounded by fair quality regeneration. Aspen is more of a component to the east of the 2-track that transects the stand. Some red maple, not much. Treat stand by removing all aspen greater than 4.5"DBH. Also remove all jack pine and red maple. Some oak should be harvested in places in order to further release aspen and to promote stump-sprout regen in these areas. Since most of the aspen within the stand is in pockets, treatment should produce mixed regeneration in the understory of the oak with areas of heavier aspen being regenerated. Treatment should also promote enhanced oak regeneration along with the other species present including jack pine, red maple and red pine. Do not cut red pine along western edge and protect advanced regeneration of red pine and oak whenever possible. Maintaining red pine will help with aesthetic issues along Jones Lake Rd. (Depending on regeneration following harvest, white pine should be considered to plant in areas throughout the understory of the stand. This will increase diversity of	



Stand	Level 4 Co	ver Type	S	ize De	nsity	Acres	Stand Age I	BA Range	Managed S	Site	General Comments
17		e, Oak Mix			Mediun	n 5.0	80	51-80	N/A		Significant jack pine mortality. Oak has recruited to overstory under dead jack pine. A couple hawthorns found in the bottom of kettle. See old
	Canopy Species		Size Class		Age						comments.Old Comments-OPIC - FMD: Small JP stand in valley
Black	/Red (Hybrid) Oak	40	Pole/Sapling	6							growing fairly well. Not very tall or large DBH. Oak and aspen present in low numbers. Oak regeneration is thick in places. Deep kettle hole,
	White Oak	10	Sapling/Pole	3							steep sides. Interesting stand, leave as is and try to leave slight buffer
	Jack Pine	50	Pole/Log	9	80						when treating stand 16. (old comment) Kettle hole, steep sides, look at when thin stand 16.
18	4191 - Mixed Upla Co	nd Decidud nifer	ous with Pole	etimber	· Mediun	n 26.1	35	1-50	N/A		Significant oak mortality on west side of stand, white oak recruiting well under dead hybrid oak. Couple aspen pockets found Dry kettle holes
(	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	through stand.Old Comment- (OPIC - FMD: Mixture of oak, aspen, JP and occasional RM. Oak remains dominant species in stand however
Black	/Red (Hybrid) Oak	30	Pole/Sapling	7	35	Black/Red	d (Hybrid) Oak	Medium	Variable	Sapling	stand seems to be converting to a more aspen dominated type. Some
	White Oak	25	Pole/Sapling	7		Wh	nite Oak	Medium	Variable	Sapling	merchantable timber present, mostly along trails and near openings,
	Jack Pine	28	Pole	7							most likely residual from past harvest. Stand is heavier to JP in south and eastern portions of stand along snomobile trail. (old comment)
В	igtooth Aspen	15	Pole	8							STAND WAS COMMERCIALLY CUT IN 1984.)
19	4130 -	Aspen	Po		er Well	20.0	50	81-110	N/A		Pole size aspen through most of stand, will be saw sized next entery.  Small pocket of jack pine/oak to the north. Oak dominated canopy similar
C	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	to stand 16 on south side. Scattered mature oak through stand may not
В	sigtooth Aspen	75	Pole	7	50	Wh	nite Oak	Medium	Variable	Sapling	make next entry. Starting to see oak mortality. Good oak regen through
Black	/Red (Hybrid) Oak	10	Log	12		Black/Red	d (Hybrid) Oak	Low	Variable	Sapling	understory, but heavily browsed.Old Comment-(OPIC - FMD: Small DBH aspen stand with overstory oak and jack pine present. Occasional
	White Oak	8	Log	12		Wite	ch Hazel	Trace	5 - 10 feet	Tall Shrub	JP pockets throughout stand. Aspen is of fair quality, short in height=low
											SI. Some small pockets of O5. Aspen quality increases in north central areas along with pockets along western edge. Determine next YOE whether or not to final harvest stand. (old comment) RESIDUAL BA OF OAK AND JACK PINE IS APPROX. 20 SQ. FT. Some J1.)
20	42250 -	Pine, Oak	Pole	etimber	Mediun	n 30.9	56	51-80	N/A		Jack pine is older than it looks, mostly pole sized with scattered ones
(	Canopy Species	% Cover	Size Class	DBH	Age						getting into the saw class. Older saw sized oaks scatted pretty evenly through stand along with younger pole sized hybrid oak. Dry kettle
	Jack Pine	65	Pole	7	56						formations present in stand.
Black	/Red (Hybrid) Oak	25	Log/Pole	10							Old Comment (ODIO, END, Devilors's author 10 stood o'th and and 10
	White Oak	7	Log	12							Old Comment- (OPIC - FMD: Predominantly a J3 stand with oak and JP in overstory in low #'s. Oak is dying out leaving stand to develop into
				1							more of a pure JP stand. Some small aspen pockets throughout stand, most notably as stand fazes into stand 19 to the NW.)
21	4310 - Pir	e, Oak Mix	c Po	oletimb	er Poor	12.1	41	1-50	N/A		Jack pine has taken over most of stand. A lot of the larger oaks have
(	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	died or are declining. High density of oak advanced regen in northwest corner of stand and oak dominates canopy there. Old Comment-
	Jack Pine	57	Pole/Sapling	5	41	Wh	nite Oak	Medium	Variable	Sapling	(OPIC - FMD: Low stocking, poor quality oak/descent JP. Lots of oak
Black	/Red (Hybrid) Oak	40	Log	13	82	Black/Red	d (Hybrid) Oak	Medium	Variable	Sapling	regen. Overall low stocking is providing good shelterwood conditions for oak regen, doing fairly well. Some JP regen in more open areas. Some

Grayling Mgt. Unit

12/9/2019 1:09:43 PM - Page 6 of 17

Compartment: 251 Year of Entry: 2021



Stand	Level 4 C	over Type	;	Size Den	sity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
22	42220 - Nat	ural Jack P	ine Sa	wtimber N	Medium	n 20.8	73	51-80	N/A		Even age jack pine/oak with a couple pockets of younger jack pine. A few
	Canopy Species	% Cover	Size Class	DBH .	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	x-log size oaks scattered through stand. Good oak advanced regen through most of stand. Small opening with open grown jp in north side of
	Jack Pine	75	Log/Pole	10	73	Black/Re	d (Hybrid) Oak	Medium	Variable	Sapling	stand.Old Comment- (OPIC - FMD: Low density JP stand with oak.
Black	k/Red (Hybrid) Oak	24	Log	12		Ja	ck Pine	Low	Variable	Sapling	JP seems to be 2-aged as there is both overstory and understory
						WI	nite Oak	Medium	Variable	Sapling	individuals throughout stand. Some mortality, fair quality overall. JP is larger and slightly more dense in western/southern areas of stand.
											Occasional overstory RP. (old comment) Some pine 40 years old, some 60.)
24	4310 - Pi	ne, Oak Mix	с Р	Poletimber Poo		32.7	36	1-50	N/A		Stand has many open areas with patchy open grown jack pine and oak. A
	Canopy Species	% Cover	Size Class	DBH	Age						few scattered xlog size trees found in stand (red pine and white oaks).  Patch of saw size red/jack mix between stands 24 and 25.Old
	Jack Pine	55	Pole/Sapling								comments- (OPIC - FMD: Very mixed stand, becomes more uniform in
Black	k/Red (Hybrid) Oak	40	Pole/Sapling	6							southern portions of stand. In the process of regeneration. JP and oak are dominant with aspen and upland brush present in places. Some
											merchantable timber along Stephan Br Rd. Stand will be merchantable next YOE. Nice stand, developing well. Providing excellent wildlife habitat because of high density and ample cover. (old comment) STAND WAS COMMERCIALLY CUT IN 1983. J2O2 to north, nice and thick J3 in the center and south end.)
25	4130	- Aspen		Sapling We		6.1 18		mmature	N/A		Dense fully stocked q. aspen. Patch of saw size red/jack mix between
	Canopy Species	% Cover	Size Class	DBH Age		Sub-Canopy Spec		Density	Avg. Height	Size	stands 24 and 25.Old Comments- (OPIC - FMD: A3 stand with oak and some RP/JP. Aspen is growing fairly well with descent form and
(	Quaking Aspen	98	Sapling	3	18	Black/Re	d (Hybrid) Oak	Trace	5 - 10 feet	Sapling	adequate height. (old comment) Aspen in poor shape. Stand is part of
											timbersale (7204101-01) which was sold to Helsel Forest Products who were high bidders. After cutting unit 4 only (17 acres), went out of business. Sale will be re-advertised with the reduced acres and forest product.)
27	42200 - Natu	ıral White F	Pine S	awtimbei	r Poor	38.5	71	51-80	N/A		Stand looks healthy with dense oak and white pine in the understory and
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	between campsites. Mostly white pine in campground. More jack pine and hybrid oak south of campground. Variable densities and species
	White Pine	60	Log/Pole	10	71	Wh	nite Pine	Medium	Variable	Sapling	composition through stand. Old Comments- (OPIC - FMD: Oak is of
	Red Pine	16	Log/Pole	11		Black/Re	d (Hybrid) Oak	Medium	5 - 10 feet	Sapling	very poor quality, some nice JP and RP throughout. Understory is light
Black	k/Red (Hybrid) Oak	10	Log	10		Re	d Maple	Low	5 - 10 feet	Sapling	with moderate stocking in places, mainly consisting of oak, JP and WP.  Some areas are occupied by cherry brush with openings that resemble u-
	Jack Pine	10	Log/Pole	10		Blac	ck Cherry	Low	5 - 10 feet	Sapling	type pockets. Small pockets of aspen exist. White oak present in low
				-		Ва	lsam Fir	Trace	10 - 20 feet	Sapling	numbers. WP more dense in campground as well as in the southern
						WI	nite Oak	Low	5 - 10 feet	Sapling	portions of this stand. (old comment) JONES LAKE STATE FOREST CAMPGROUND. Enter every year to remove hazard trees. Dead oak
						Ja	ick Pine	Trace	< 5 feet	Sapling	were removed from the campsites and boat launch/picnic area under
						Re	ed Pine	Trace	< 5 feet	Sapling	contract #72-013-02-02 Campground Oak Salvage in May 2002. Approximate acres of 20 to 24. NEW COMMENTS Sale #720071201
											Jones Lake Salvage, cut all oak from campground, left red and white pine. Sale was completed 7-4-12. PM)

TONELLOM1



Stand Leve	el 4 Cover Typ	e	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
28	4130 - Aspen		Sapling Poor	21.2	5	Immature	N/A	Harvested 2014. As of now stand is overall poorly stocked however, the
Canopy Spec	ies % Cove	er Size Class	DBH Age					north and south side of the stand are fully to moderately stocked and meet minimum stocking requirements for mixed upland deciduous. There
Bigtooth Aspe	n 65	Sapling	1 5					is about 10 acres in the center of stand that are poorly stocked with
Black/Red (Hybrid	Oak 15	Sapling	1					sparse/heavily browsed cherry and oak less than 6 feet. Old Comment-Oak salvaged under contract 72-626-14-01. If natural
Red Maple	20	Sapling	1					regeneration fails stand will be planted to red pine.  OPIC - FMD: Stand harvested under contract 72-625-11-01. Old  Comment: Mixed stand adjacent to jones lake rd. Stand is dominated by oak however aspen and jack pine are quite numerous in places and are consistently in the 10BA range throughout the stand. Tank trail/old RR grade/2-track bissects stand in a N/S direction. Overall quality of stand is fair to poor with some oak and jack pine being of descent quality. Stand was previously treated however was not cut. Treat stand by removing all jack pine and aspen. Do not cut oak or white and red pine. Stand should develop into a mixed stand with aspen, jack pine and oak regeneration common. Oak and small amount of coniferous residual should help to alleviate visual concerns along road and from campground. (old comment) Just take out the JP when stand 29 is cut. Tank trail runs through stand. Leave JP by the water west of Jones lake road. Stand is part of timbersale (7204101-01) which was sold to Helsel Forest Products who were high bidders. After cutting unit 4 only (17 acres), went out of business. Sale will be re-advertised with the reduced acres and forest product.
	Mixed Upland	Deciduous	Sapling Medium  DBH Age	29.7	6	Immature	N/A	Stand regenerated well after harvest. Oak is dense in areas and being heavily browsed, but is starting to recruit above browse height. Oak
Canopy Spec Bigtooth Aspe		Sapling	1					should be a significant component. Retention was placed around the bog to the south contains mostly jack pine and aspen. Other retention one
Red Maple	20	Sapling	1					east side consists mostly of red pine. Northern retention is mostly oak.
White Oak	20	Sapling	1					Old Comments- (OPIC - FMD: Stand harvested under contract 72-625-11-
Black/Red (Hybrid	Oak 32	Sapling	1 6					Old Comments: OPIC - PMD. Stalld halvested dilder collidate 72-623-11-01. Old Comment: Descent aspen stand. Variable in terms of composition, stocking and density. Fair amount of oak mixed in, of porr quality. Some RP/WP poles. Stand was prescribed previously but was not treated. Treat stand by final harvesting all aspen and leaving red and white pine poles. Also mark to leave some oak adjacent to CR-612 while also leaving 1-2 retention islands within 400'of road right of way. The retention suggested should alleviate visual concerns and will also create enhanced diversity within the stand. Use rabit habitat specifications within stand in order to improve habitat and create a greater amount of DWD within stand. May need to exclude small areas depending on steepness of slope. Determine at time of sale preparation. (old comment) South half cut all, North half cut all except oak over 8 inches DBH, steep hill on east side. Twp. Supervisor said no problem with no buffer for this stand along Co. RD. 612. Stand is part of timbersale (7204101-01) which was sold to Helsel Forest Products who were high bidders. After cutting unit 4 only (17 acres), went out of business. Sale will be re-advertised with the reduced acres and forest product.)



Stand	Level 4 Co	ver Type	S	ize De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments	
30	4126 - White, B				Mediu		82	51-80	N/A		Stand located on high ridge overlooking Jones Lake and highway 612 [highly visual). Good oak regen through most of stand, but heavily	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	browsed. Pocket of natural red pine on north side of stand along Highway	
	Red Pine	10	Pole/Log/XLog	9		W	hite Oak	Medium	< 5 feet	Sapling	612. Significant hybrid oak mortality on east side of stand. Old	
	White Oak	58	Log/Pole	10	82	Black/Re	ed (Hybrid) Oak	Medium	< 5 feet	Sapling	Comments- (OPIC - FMD: Oak stand of poor quality. Aspen, red pine and red maple present as well. Aspen in descent #'s in some places.	
Blac	ck/Red (Hybrid) Oak	20	Log	11							Some pockets of fair oak regeneration, not great. Wait until next YOE in	
	Bigtooth Aspen	7	Log/Pole	10							order to increase BA and DBH and then final harvest with stand 130	
											which was previously part of stand 30 but is now separated because of small G0 stand-411.)	
31	42220 - Natu	ıral Jack F	Pine Saw	rtimber	Mediu	m 7.3	62	51-80	N/A		Over mature jack pine with significant mortality occuring. Excellent oak	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	recruitment in understory (most 10-20').	
	Jack Pine	90	Log/Pole	11	62	Black/Re	ed (Hybrid) Oak	High	10 - 20 feet	Sapling	Old Comments- (OPIC - FMD: Mixed stand with areas of dense jack pine	
Blac	ck/Red (Hybrid) Oak	7	Log/XLog	17		W	hite Oak	Medium	10 - 20 feet	Sapling	and other pockets that are lightly stocked. Also some pockets of grassy	
						W	hite Pine	Trace	5 - 10 feet	Sapling	opening. Some big and little bluestem within stand. (old comment) Patches of J6 mixed with J4G.)	
32	4126 - White, B	lack, N. P	in Oak Saw	rtimber	Mediu	m 22.8	78	51-80	N/A		Significant mortality in north half of stand. Oak, aspen, and jack pine are	
	Canopy Species	% Cover	Size Class	DBH	Δne	Sub-Ca	nopy Species	Density	Avg. Height	Size	over-mature. Scattered X-log sized red pine, white pine, and oaks seen.	
	Red Pine	10	Log/Pole/XLog	14	7.90		hite Pine	Low	Variable	Sapling	Good white pine regen around the couple mature white pines seen. Oak understory is decent, some starting to get over 5'.	
	Bigtooth Aspen	20	Log	12			hite Oak	Medium	< 5 feet	Sapling		
Blac	ck/Red (Hybrid) Oak	10	Log/Pole/XLog	10			ed (Hybrid) Oak		< 5 feet	Sapling	Old Comments- (OPIC - FMD: Separated from stand 35/135 because of	
	White Oak	50	Log/Pole/XLog	10	78		ted Pine	Trace	Variable	Sapling	slightly different composition. Oak regen and red pine component throughout stand. Very mixed stand overall with JP, RP, aspen and oak	
	Jack Pine	6	Log	11			ed Maple	Low	5 - 10 feet	Sapling	being dominant in many places. Oak/WP make up majority of understory	
											spp. Heavier to JP in N portion of stand. Lightly stocked overall, relatively small DBH. Thick about possibly treating next YOE, maintain red pine component and possibly replant to red pine or jack pine? (old comment) Staging area for military.)	
33	4133 - Aspe	n, Mixed F	Pine Po	letimb	er Well	6.0	27	1-50	N/A		Fully stocked aspen with a few oak stems intermixed. Aspen just starting to get 4-6" class. Two rows or planted red pine along the east boundary	
	Canopy Species	% Cover	Size Class	DBH	Age						of stand and some planted rows reach into stand.Old comment-	
	Red Pine	19	Sapling/Pole	4							(OPIC - FMD: A3 stand growing fairly well. 15-20' in height. Descent	
	Quaking Aspen	75	Pole/Sapling	5	27						form overall. Occasional oak stems, somewhat of an overlap between stands 33 and 34-RP and aspen.)	
34	42111 - Planted Deci	Red Pine, duous	Mixed Po		er Well	24.7	26	51-80	N/A		Red pine looks healthy in good form. Pockets of jack pine, aspen, and cherry through most of stand. Mostly pole timber with some immature mixed in. Old comments- (CC in 1992. OPIC - FMD: R3 stand with	
	Canopy Species	% Cover		DBH	Age						come jack pine mixed in. Similar to stand 61 to the east. RP looks to be	
	Red Pine	60	Pole/Sapling	5	26						growing well, some leader damage throughout stand. Occasinal oak with pockets of aspen present. Oak becomes more of a codominant	
	Jack Pine	15	Sapling/Pole	4								
Blac	ck/Red (Hybrid) Oak	15	Pole/Sapling	5							component in southern areas of stand. (old comment) RP only 1 ft tall, oak stump sprouts.)	

– Stands



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BAR	Range	Managed S	ite	General Comments
35	4191 - Mixed Upla Coi	nd Decidu	ous with	Sapling I	Medium	64.7	6	lmm	nature	N/A		Good jack pine regen through most of stand (around 500/ac on avg). Lots of the stump sprouted oak is just getting above browse height. Good
	Canopy Species	% Cover	Size Class	DBH	l Age							white oak regen around some of the retained white oak retention.
	Quaking Aspen	25	Sapling	1								Pockets of dense aspen regen as well. Scattered red pine and oak residuals left through stand. Retention islands consist mostly of over-
Blad	ck/Red (Hybrid) Oak	47	Sapling	1	6							mature aspen and jack pine. Stand will likely be jack pine dominated next
	Jack Pine	20	Sapling	1								YOE except for south west fingers and north finger dominated by aspen.
												Old Comments- (OPIC - FMD: Harvested under contract 72-610-11-01. Old Comment: Nice JP stand with some poor quality oak and scattered RP present. JP is doing well, some mortality but not as much as would be expected in a stand of this age and density. Lots of DWD from both oak and JP that have fallen. Some small aspen pockets on eastern side of stand along with some blending into adjacent stands on the west side of stand 35. (old comment) Stand 38 is the cut area for this stand. No need for a fuel break along Stephan Bridge rd.)
36	4311 - Pine	· •		awtimbei			71		1-80	N/A		Aspen and jack pine mortality in stand. Pocket of denser white/red pine on the south side of stand where BA is closer to 100 sqft/ac.Old
	Canopy Species		Size Class		l Age		nopy Speci		Density	Avg. Height	Size	Comments- (OPIC - FMD: Small stand, mixed with aspen jack pine and
	Quaking Aspen 37 Log/Pole 12 Black/Red		d (Hybrid) O	Dak	Medium	Variable	Sapling	oak. Aspen and jack pine are of descent quality however oak is terrible				
	Jack Pine	50	Log/Pole	12	71		nite Oak		Low	10 - 20 feet	Sapling	quality as is somewhat typical of the central portion of this compartment. Portions of stand are A6 while other areas are J6. Overall stand typed to
						Wh	ite Pine		Low	Variable	Sapling	be an A6 stand. (old comment) Patches of JP, aspen and grass.)
37	4131 - As	spen, Oak	Po	oletimbe	r Mediur	m 35.5	37	1	-50	N/A		Small sliver of trees south of road is part of stand. Lots of dead/declining
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Speci	ies [	Density	Avg. Height	Size	oak. Openings scatterd through the more oak dominated parts of the stand. Somewhat poor quality aspen and oak Old Comments- (OPIC -
	Quaking Aspen	50	Pole/Sapling	g 7	37	Black/Red	d (Hybrid) O	Dak	Medium	10 - 20 feet	Sapling	FMD: Stand converted from Á3 to A4/5 since last YOE. Still small DBH
Blad	ck/Red (Hybrid) Oak	36	Pole/Sapling	g 6		Blac	k Cherry		Low	10 - 20 feet	Sapling	and low stocking of merchantable timber, however enough to warrant
						Quak	ing Aspen		Low	5 - 10 feet	Sapling	typing as pole-sized stand. Pockets and scattered red pine exist in central portion of stand proving good diversity and increased vertical
						Re	d Maple		Medium	Variable	Sapling	structure. (old comment) STAND WAS COMMERCIALLY CUT IN 1982. Center portion has R7 scattered about.)
38	42121 - Planted Decid	Jack Pine, duous	Mixed	Sapling I	Medium	80.2	14	lmm	nature	N/A		Planted jp delineated from larger unplanted portions of stand stand split from original. Some pockets of aspen and cherry brush mixed through
	Canopy Species	% Cover	Size Class		l Age							stand. Old Comments- (OPIC - FMD: Nice stand overall with small DBH JP, aspen and oak saps/poles in low density (<10BA). Jack pine
	Jack Pine	80	Sapling	2	14							was planted throughout stand with scattered pockets of aspen/jack pine
Blad	ck/Red (Hybrid) Oak	7	Sapling	3								regen that was planted around. Plantation is doing very well,
	Quaking Aspen	10	Sapling	3								approximately 2-4' in height with little mortality. Cherry brush throughout stand. Most of the areas that were avoided when planting are in the
												central portion of the stand with some pockets in the SW corner of stand. These areas are small and have been included in stand 38. (old comment) This is the cut stand for stand 35. 66 acres of the 124 acres was trenched and planted to Jack Pine in accordance with FTP C72-481 in 5/05. Stand must be evaluated next inventory to determine which of the stand was not planted.)



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
	4199 - Other Mixed Canopy Species Red Pine Ck/Red (Hybrid) Oak Quaking Aspen Jack Pine Black Cherry	'	Size Class  Log Sapling Sapling Sapling Sapling Sapling	Sapling N  DBH  14  1  1  1	Age 6	26.6	6	Immature	N/A		Moderately stocked with patchy regen of variable species and densities Jack pine and oak will be a larger component in this stand once they recruit. Heavily browsed oaks are not quite out of browse height and JP is anout 2 feet tall now. Cherry is pretty evenly distributed through stand with a few pockets of aspen. Red pine was left out of harvest. Retention area in sw corner along Stephan Bridge Rd consists mostly of red pine and jack pine. Overall stand looks like it meets regen objectives as stated in the FTP.  Old Comments- (OPIC - FMD: Harvested under contract 72-610-11-01. Red pine dense in SW corner near road/snowmobile trail. Descent JP throughout, some mortality. More of a pure jack pine stand away from road/trail. There are some larger jack pine throughout stand and overall, jack pine is doing quite well in terms of from and overall health. Treat stand by final harvesting. Leave red pine in SW portion of stand along with some trees marked to leave along stephan br rd. Replant stand to JP. Avoid pockets of red pine regen when planting operations occur. (old comment) This stand the same as Stand 35)
40	42290 - Natu Canopy Species		Pine Sa	awtimber	Mediu		73	51-80  Density	N/A Avg. Height	Size	Nice red pine throughout stand. Aspen and jack pine are getting over- mature and dying off. Lots of red pine getting into 18" d-class.
	Jack Pine	43	Pole/Log	9	7.90		hite Oak	Low	Variable	Sapling	Old Comments- (OPIC - FMD: Lots of military activity throughout stand.
	Quaking Aspen	10	Pole/Log	8		Black/Re	d (Hybrid) Oal	k Medium	Variable	Sapling	Overall stand is a sparse jack pine stand, relatively poor quality. Some
	Red Pine	45	Log	16	73						oak regen with very few aspen stems occasionally founs along edges of stand. Some cherry brush in more open areas as well. (old comment) Used by the military.)
41	4126 - White, B	•		awtimber			66	51-80	N/A		Small oak stand with good understory of oak and maple. Heavy browse present. Small pocket of mature aspen northeast corner. Some of the
	Canopy Species		Size Class		Age		nopy Species		Avg. Height	Size	hybrid oak is declining and dying off.
Blac	ck/Red (Hybrid) Oak	73	Log/Pole	11	66		hite Oak	Medium	Variable	Sapling	Old Comments (ODIC, EMD) Door quality only stand with accessional
	White Oak	20	Pole/Log	8			ed Maple	Low	5 - 10 feet	Sapling	Old Comments- (OPIC - FMD: Poor quality oak stand with occasional aspen throughout. Mainly concentrated in pockets. Lots of wildlife use in
							ed Pine	Trace	5 - 10 feet	Sapling	stand. (old comment) Limby some aspen.)
						Ja	ack Pine	Trace	5 - 10 feet	Sapling	
42		- Aspen		Poletimb			28	1-50	N/A		Aspen with a component of oak. High maple density 10-20 feet in the sub canopy south of road.Old Comments- (OPIC - FMD: A3 approximately
-	Canopy Species	% Cover			Age		nopy Species		Avg. Height	Size	10-15' in height. Growing well with descent form. Oak is mixed in stand
	ck/Red (Hybrid) Oak	15	Pole/Sapling	_			ed Maple	Medium	5 - 10 feet	Sapling	in fair numbers. Also some conifers present in low unmbers as well.  Tremendous amount of wildlife activity, mainly deer and turkey at edges of stand where it borders stand 55.)
	Quaking Aspen	20	Pole/Sapling	-	20		hite Pine	Trace	< 5 feet		
	Bigtooth Aspen	53	Pole Sanling/Pole	6 e 4	28		d (Hybrid) Oal		Variable	Sapling	
	Red Maple	10	Sapling/Pole	e 4		VV	hite Oak	Low	10 - 20 feet	Sapling	

DNR DICHIGAN

Stand	Level 4 Co	ver Type	S	ize De	nsity	Acres	Stand Age E	A Range	Managed S	Site	General Comments
43	4130 -	Aspen	Po	letimb	er Well	28.9	36	81-110	N/A		West 1/3 of stand and East 2/3 of stand could almost be split into
С	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	different stands. East side is denser big-tooth aspen BA 111-140, west side of stand is more open with quaking aspen and jack pine 50-80 BA
Black/	Red (Hybrid) Oak	10	Pole	7		Ja	ick Pine	Trace	Variable	Sapling	and 50-75% canopy closure. Southeast corner of stand is more
Bi	igtooth Aspen	50	Pole	7	36	Black/Re	d (Hybrid) Oak	Low	Variable	Sapling	dominated by oak. Left as 1 stand since it was all treated at the same
Qı	uaking Aspen	25	Pole/Sapling	6		Re	d Maple	Low	Variable	Sapling	time and will likely be harvested again at the same time.
						WI	hite Oak	Low	Variable	Sapling	Old Comments- (OPIC - FMD: A3 approximately 20-30' in height.
						Wit	ch Hazel	Low	5 - 10 feet	Tall Shrub	Growing well with good form and minimal cankering. Oak mixed
						Blad	ck Cherry	Low	Variable	Sapling	throughout stand in lower numbers with pockets that are thicker. Some RP, JP and WP mixed throughout stand in low numbers as well. Some
						Wh	nite Pine	Low	Variable	Sapling	small pockets of A4, however overall stand is still typed as an A3.
											Merchantable trees are localized along edges and where greater sunlight is available. Will most likely type as an A4/5 stand next YOE.(no old comment) STAND WAS COMMERCIALLY CUT IN 1983.)
46 C	4126 - White, B		n Oak Sa Size Class		Medium I <b>Age</b>	50.1	5	mmature	N/A		Good oak response to harvest, but heavily browsed. Some of the oak is getting about 5-6 feet tall, but most is still below browse height. Pockets of aspen and maple mixed in. Some small openings scattered through
Black/	/Red (Hybrid) Oak	50	Sapling	1	5						stand.Old comment- (OPIC - FMD: Harvested under contract number
	White Oak	23	Sapling	1							72-609-11-01 "Winter Oak Jack" in January 2014. Boundary excluded
Bi	igtooth Aspen	7	Sapling	1							retention pocket left along KP Lake Rd.)
	Red Maple	10	Sapling	1							
	Red Maple 4199 - Other Mixed		1 3		er Well	45.7	82	81-110	N/A		Legacy red pine and x-log size oak scattered through stand. Oak and
47		I Upland D	1 3	wtimb	er Well		82 nopy Species	81-110 <b>Density</b>	N/A Avg. Height	Size	aspen mortality through stand. Poweline cuts through west side of stand
47 C	4199 - Other Mixed	I Upland D	eciduous Sa	wtimb		Sub-Ca				<b>Size</b> Sapling	aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of
47 C	4199 - Other Mixed	I Upland D	eciduous Sa	wtimb		Sub-Ca	nopy Species	Density	Avg. Height		aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of RM and occasional aspen stems. Stand is hilly in spots, sloping
47 C	4199 - Other Mixed Canopy Species Red Maple	Upland D  Cover  17  21	eciduous Sa Size Class Pole/Sapling	wtimb  DBH		Sub-Ca WI Re	nopy Species hite Oak	<b>Density</b> Medium	Avg. Height < 5 feet	Sapling	aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of RM and occasional aspen stems. Stand is hilly in spots, sloping generally to the east towards KP lake. Fair amount of dead oak within
47 C	4199 - Other Mixed Canopy Species Red Maple White Oak	Upland D  Cover  17  21	eciduous Sa Size Class Pole/Sapling Log/Pole	DBH 7	Age	Sub-Ca WI Re	nopy Species hite Oak ad Maple	Density  Medium  Low	Avg. Height < 5 feet Variable	Sapling Sapling	aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of RM and occasional aspen stems. Stand is hilly in spots, sloping generally to the east towards KP lake. Fair amount of dead oak within stand. Aspen throughout in low numbers, heavier in eastern areas of stand. (old comment) Enough dead oak to open up the stand, best not to
47 C	4199 - Other Mixed Canopy Species Red Maple White Oak (Red (Hybrid) Oak	1 Upland D  **Cover** 17 21 36	eciduous Sa Size Class Pole/Sapling Log/Pole Log/Pole/XLog	7 10 13	Age	Sub-Ca WI Re	nopy Species hite Oak d Maple hite Pine	Density  Medium  Low  Trace	Avg. Height < 5 feet Variable Variable	Sapling Sapling Sapling	aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of RM and occasional aspen stems. Stand is hilly in spots, sloping generally to the east towards KP lake. Fair amount of dead oak within stand. Aspen throughout in low numbers, heavier in eastern areas of
47 C	4199 - Other Mixed Canopy Species Red Maple White Oak /Red (Hybrid) Oak igtooth Aspen Red Pine	1 Upland D % Cover 17 21 36 18	eciduous Sa Size Class Pole/Sapling Log/Pole Log/Pole/XLog Log Log Log/XLog	7 10 13 12 13	Age	Sub-Ca WI Re	nopy Species hite Oak d Maple hite Pine	Density  Medium  Low  Trace	Avg. Height < 5 feet Variable Variable	Sapling Sapling Sapling	aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of RM and occasional aspen stems. Stand is hilly in spots, sloping generally to the east towards KP lake. Fair amount of dead oak within stand. Aspen throughout in low numbers, heavier in eastern areas of stand. (old comment) Enough dead oak to open up the stand, best not to thin on both sides of KP lake rd at the same time.)  Super canopy red pine mixed through stand is older than the aspen and
47 C	4199 - Other Mixed Canopy Species Red Maple White Oak /Red (Hybrid) Oak igtooth Aspen Red Pine	W Cover 17 21 36 18 8	eciduous Sa Size Class Pole/Sapling Log/Pole Log/Pole/XLog Log Log/XLog Sa	7 10 13 12 13 wwtimb	82	Sub-Ca Wi Re Wh Ro	nopy Species hite Oak d Maple hite Pine ed Pine	Density Medium Low Trace Low	Avg. Height < 5 feet Variable Variable Variable	Sapling Sapling Sapling	aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of RM and occasional aspen stems. Stand is hilly in spots, sloping generally to the east towards KP lake. Fair amount of dead oak within stand. Aspen throughout in low numbers, heavier in eastern areas of stand. (old comment) Enough dead oak to open up the stand, best not to thin on both sides of KP lake rd at the same time.)  Super canopy red pine mixed through stand is older than the aspen and oak. High density of white pine in understory on north side. Some red
47 C Black/ Bi  48 C	4199 - Other Mixed Canopy Species Red Maple White Oak /Red (Hybrid) Oak igtooth Aspen Red Pine	1 Upland D % Cover 17 21 36 18 8	eciduous Sa Size Class Pole/Sapling Log/Pole Log/Pole/XLog Log Log/XLog Sa	7 10 13 12 13 wwtimb  DBH  7 10 13 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	82 er Well	Sub-Cal Wh Re Wh Ro 14.0 Sub-Cal	nopy Species nite Oak d Maple nite Pine ed Pine	Density Medium Low Trace Low 81-110	Avg. Height < 5 feet Variable Variable Variable N/A	Sapling Sapling Sapling Sapling	aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of RM and occasional aspen stems. Stand is hilly in spots, sloping generally to the east towards KP lake. Fair amount of dead oak within stand. Aspen throughout in low numbers, heavier in eastern areas of stand. (old comment) Enough dead oak to open up the stand, best not to thin on both sides of KP lake rd at the same time.)  Super canopy red pine mixed through stand is older than the aspen and oak. High density of white pine in understory on north side. Some red pine subcanopy around KP Lake.Old comments- (OPIC - FMD: Public access site within stand. Descent aspen, steep slope to lake. Some
Black/ Bi  48  C  Bi	4199 - Other Mixed Canopy Species Red Maple White Oak /Red (Hybrid) Oak igtooth Aspen Red Pine 4131 - As	Upland D	eciduous Sa Size Class Pole/Sapling Log/Pole Log/Pole/XLog Log Log Size Class	7 10 13 12 13 wwtimb	82 er Well	Sub-Cal With Re With Ro  14.0  Sub-Cal	nopy Species hite Oak d Maple hite Pine ed Pine 70 nopy Species	Density Medium Low Trace Low 81-110 Density	Avg. Height < 5 feet Variable Variable Variable N/A Avg. Height	Sapling Sapling Sapling Sapling Sapling	aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of RM and occasional aspen stems. Stand is hilly in spots, sloping generally to the east towards KP lake. Fair amount of dead oak within stand. Aspen throughout in low numbers, heavier in eastern areas of stand. (old comment) Enough dead oak to open up the stand, best not to thin on both sides of KP lake rd at the same time.)  Super canopy red pine mixed through stand is older than the aspen and oak. High density of white pine in understory on north side. Some red pine subcanopy around KP Lake.Old comments- (OPIC - FMD: Public access site within stand. Descent aspen, steep slope to lake. Some decline within oak aspen making for great wildlife and bird habitat. (old
Black/ Bi  48  C  Bi	4199 - Other Mixed Canopy Species Red Maple White Oak /Red (Hybrid) Oak igtooth Aspen Red Pine 4131 - As Canopy Species igtooth Aspen	1 Upland D % Cover 17 21 36 18 8 spen, Oak % Cover 46	Peciduous Sa  Size Class Pole/Sapling Log/Pole Log/Pole/XLog Log Log Sa  Size Class Log	7 10 13 12 13 wwtimb  DBH  7 10 13 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	82 er Well	Sub-Ca Wh Re Wh Re 14.0 Sub-Ca	nopy Species hite Oak d Maple hite Pine ed Pine  70  nopy Species hite Pine	Density  Medium  Low  Trace  Low  81-110  Density  Medium	Avg. Height < 5 feet Variable Variable Variable N/A Avg. Height Variable	Sapling Sapling Sapling Sapling Sapling Sapling	aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of RM and occasional aspen stems. Stand is hilly in spots, sloping generally to the east towards KP lake. Fair amount of dead oak within stand. Aspen throughout in low numbers, heavier in eastern areas of stand. (old comment) Enough dead oak to open up the stand, best not to thin on both sides of KP lake rd at the same time.)  Super canopy red pine mixed through stand is older than the aspen and oak. High density of white pine in understory on north side. Some red pine subcanopy around KP Lake.Old comments- (OPIC - FMD: Public access site within stand. Descent aspen, steep slope to lake. Some
Black/ Bi  48  C  Bi	4199 - Other Mixed Canopy Species Red Maple White Oak /Red (Hybrid) Oak igtooth Aspen Red Pine 4131 - As Canopy Species igtooth Aspen	1 Upland D % Cover 17 21 36 18 8 spen, Oak % Cover 46	Peciduous Sa  Size Class Pole/Sapling Log/Pole Log/Pole/XLog Log Log Sa  Size Class Log	7 10 13 12 13 wwtimb  DBH  7 10 13 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	82 er Well	Sub-Ca Wi Re Wh Ro  14.0 Sub-Ca	nopy Species hite Oak d Maple hite Pine ed Pine  70  nopy Species hite Pine Beech	Density  Medium  Low  Trace  Low  81-110  Density  Medium  Trace	Avg. Height < 5 feet Variable Variable Variable  N/A  Avg. Height Variable  5 - 10 feet	Sapling Sapling Sapling Sapling Sapling Sapling Size Sapling Sapling	aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of RM and occasional aspen stems. Stand is hilly in spots, sloping generally to the east towards KP lake. Fair amount of dead oak within stand. Aspen throughout in low numbers, heavier in eastern areas of stand. (old comment) Enough dead oak to open up the stand, best not to thin on both sides of KP lake rd at the same time.)  Super canopy red pine mixed through stand is older than the aspen and oak. High density of white pine in understory on north side. Some red pine subcanopy around KP Lake.Old comments- (OPIC - FMD: Public access site within stand. Descent aspen, steep slope to lake. Some decline within oak aspen making for great wildlife and bird habitat. (old
Black/ Bi  48  C  Bi	4199 - Other Mixed Canopy Species Red Maple White Oak /Red (Hybrid) Oak igtooth Aspen Red Pine 4131 - As Canopy Species igtooth Aspen	1 Upland D % Cover 17 21 36 18 8 spen, Oak % Cover 46	Peciduous Sa  Size Class Pole/Sapling Log/Pole Log/Pole/XLog Log Log Sa  Size Class Log	7 10 13 12 13 wwtimb  DBH  7 10 13 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	82 er Well	Sub-Ca Wi Re Wh Ro  14.0  Sub-Ca Wh I I I I Wh	nopy Species nite Oak d Maple nite Pine 70 nopy Species nite Pine Beech pnwood	Density Medium Low Trace Low  81-110 Density Medium Trace Medium Low	Avg. Height < 5 feet Variable Variable Variable  N/A  Avg. Height Variable  5 - 10 feet 5 - 10 feet	Sapling Sapling Sapling Sapling Sapling Size Sapling Sapling Sapling	aspen mortality through stand. Poweline cuts through west side of stand parallel with KP Lake Rd.Old comments- (OPIC - FMD: Pockets of stand are regenerating well with oak seedlings/saplings. Some areas of RM and occasional aspen stems. Stand is hilly in spots, sloping generally to the east towards KP lake. Fair amount of dead oak within stand. Aspen throughout in low numbers, heavier in eastern areas of stand. (old comment) Enough dead oak to open up the stand, best not to thin on both sides of KP lake rd at the same time.)  Super canopy red pine mixed through stand is older than the aspen and oak. High density of white pine in understory on north side. Some red pine subcanopy around KP Lake.Old comments- (OPIC - FMD: Public access site within stand. Descent aspen, steep slope to lake. Some decline within oak aspen making for great wildlife and bird habitat. (old

OF NATURAL BEAUTION OF NAT

Stand	Level 4 Co	,	Size Density		Acres Stand Age BA Range			Managed S	Site	General Comments	
49	4130 -	Aspen	Р	oletimb	er Well	16.7	37	51-80	N/A		Healthy aspen stand with large diameter oaks scattered through stand that were not cut last harvest. Very few pine in understory. Old
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	comments- (OPIC - FMD: A3 stand growing well. Some merchantable
	Red Maple	10	Pole/Sapling	7		Wit	ch Hazel	Medium	5 - 10 feet	Tall Shrub	timber along KP lake rd. however majority of stand is still not of pole-size
	Bigtooth Aspen	81	Pole/Log	8	37	Re	d Maple	Medium	>20 feet	Sapling	yet. Will most likely be next YOE. White pine in understory in descent
						Servicebe	rry (Juneberry)	) Medium	Variable	Sapling	numbers with some large individuals left at time of harvest for visual and seed source purposes. Pockets of white pine regen are thick in places
						Wh	nite Pine	Trace	Variable	Sapling	as is oak regeneration. (old comment) STAND WAS COMMERCIALLY CUT IN 1982 CREATING A LOT OF CONTROVERSY.)
50	4126 - White, B	lack, N. Pi	n Oak Sa			n 109.0	87	51-80	N/A		Overall, stand has sub-canopy density of high to full through most of stand. West side of stand has less of a sub-canopy due to higher BA and
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	less mortality than the rest of the stand. Some portions of stand sub-
Blac	ck/Red (Hybrid) Oak	60	Log/Pole/XLog	11	87	Re	d Maple	Medium	10 - 20 feet	Sapling	canopy are heavy aspen, while others are heavy oak. Red maple found
	Red Maple	10	Pole	7		Wh	nite Oak	Medium	< 5 feet	Sapling	through most of stand, sometimes in dense patches. Significant oak
	White Oak	25	Log	11		Bigto	oth Aspen	Medium	>20 feet	Sapling	mortality. Snowmobile trail runs through south side of stand. Powerline runs through north side of stand along KP Lake Rd. Primitive hunting
					-	Black/Re	d (Hybrid) Oak	Low	Variable	Sapling	camp on north side of stand off KP road with rails built and hardware in
	4420	· Aspen		0		0.5	07		N/A		the Kotar classification that this stand falls into. Overstory oak are of marginal quality, lots of defect, dead limbs, etc. Quite a few dead standing and lots of DWD from harvest as well as from falling snags. Stand provides nice visual after treatment, is regenerating well to a mixed stand with oak overstory. Includes what was previously stand 44. (old comment) Take out aspen and maple and if needed 7 inch and larger white oak. Strip of aspen in the center. Stand thinned to an average of 60 BA. Finished havesting in the spring of 2003.)
51				Sapling		6.5	27	Immature	N/A		Aspen with a component of oak. CC 1992. No maple observed (see old comments).Old comment- (OPIC - FMD: A3 stand with lots of red
	Canopy Species	% Cover	Size Class	DBH							maple as well as oak throughout stand. Some cherry is also present in,
	Quaking Aspen	89	Sapling/Pole	4	27						mostly around perimeter edges. Quite a bit of wildlife activity concentrated in the edge areas.)
	ck/Red (Hybrid) Oak	7	Sapling	2	07						concentrated in the edge areas.)
	Quaking Aspen	89	Sapling/Pole	4	27						
Blac	ck/Red (Hybrid) Oak	7	Sapling	2							
52	4131 - A	spen, Oak	Р	oletimb	er Well	19.3	36	81-110	N/A		Old landing in middle of stand makes a nice opening. Scattered aspen and oak getting saw sized. Found scatterd red pine along east side, but
	Canopy Species		Size Class		Age		nopy Species		Avg. Height	Size	no pine pockets observed (see old comments).Old comments-
	Bigtooth Aspen	63	Pole	7	36	Wit	ch Hazel	Medium	5 - 10 feet	Tall Shrub	( - · · · · · · · · · · · · · · · · · ·
Blac	ck/Red (Hybrid) Oak	20	Pole	7		Re	d Maple	Medium	Variable	Sapling	throughout stand. Also some JP/RP pockets which create some added diversity. Lots of wildlife within stand. Small amount of merchantable
	Red Maple	15	Pole/Sapling	5		Wh	nite Oak	Low	5 - 10 feet	Sapling	trees within stand, could have been typed as an A3 stand, however a lowly stocked A4 stand seems to be more accurate. Will most likely be
											an A6 stand next YOE. (old comment) STAND WAS COMMERCIALLY

CUT IN 1983.)



Stand	Level 4 Co	ver Type	5	Size De	nsity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
53	4310 - Pin	e, Oak Mi	x Sav		Mediur	m 31.7	70	51-80	N/A		Heavy jack pine and oak mortality with red maple and oak recruiting.  Snowmobile trail runs through stand. Hilly terrain in areas. Inoperable
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	slope leading into dry kettle formation in the south (similar to stand 17).
	Jack Pine	43	Log/Pole	10	70	Re	d Maple	High	>20 feet	Sapling	Some hawthorn found on east side of stand. Scattered red pine remnants
	Red Pine	14	Log/Pole/XLog	12		WI	nite Oak	Low	Variable	Sapling	through stand.
Bla	ck/Red (Hybrid) Oak	17	Pole/Log	8		Black/Re	d (Hybrid) Oak	Medium	Variable	Sapling	Old Comments- (OPIC - FMD: Thick JP stand with red pine present. Oak
	Quaking Aspen	6	Pole/Log	8							saplings in understory along with cherry brush. JP is short in height but
	White Oak	9	Pole	7							is growing well overall.)
	Red Maple	11	Pole/Log	8							
54	4130 -	Aspen		Sapling	ı Well	5.6	16	Immature	N/A		See old comment.Old comment- (OPIC - FMD: A3 stand growing well,
	Canopy Species	% Cover	Size Class	DBH	Age						approximately 8-10' in height and 1-2" DBH. Oak scattered throughout stand along with cherry and RM. Lots of wildlife use. RP/JP around
	Quaking Aspen	72	Sapling	3	16						perimeter create a nice, small pocket stand amidst mature timber.)
	Red Maple	20	Sapling	3							
56	4125 - Black	k, N. Pin C	oak S	awtimb	er Well	12.8	82	141-170	N/A		Split stand into multi-part stand due to size and treatment history around
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	it. West part of stand contains advanced regen east part has little to no understory except some maple and hazel. East part of stand contains
	Red Maple	22	Pole	7		Re	d Maple	Low	Variable	Sapling	most of the aspen which is getting over-mature.Old comment- (OPIC -
	Bigtooth Aspen	14	Log/Pole	10		WI	hite Oak	Low	< 5 feet	Sapling	FMD: OI Stand Year Origin was 1937)
	White Oak	11	Pole/Log	8		Black/Re	d (Hybrid) Oak	Low	< 5 feet	Sapling	
Bla	ck/Red (Hybrid) Oak	51	Log/Pole	11	82	Wit	ch Hazel	Low	5 - 10 feet	Tall Shrub	
57	4130 -	Aspen		Sapling		12.2	28	Immature	N/A		OPIC - FMD: A3 stand growing well. Oak is present along with JP around perimeter of stand. A few larger red pine and oak trees remain
	Canopy Species	% Cover		DBH	Age	Sub-Ca	nopy Species		Avg. Height	Size	within stand creating nice vertical structure and some increased mast
	Quaking Aspen	75	Sapling/Pole	4	28	Re	d Maple	Medium	5 - 10 feet	Sapling	production.
	Red Maple	15	Pole/Sapling	5							
58	4133 - Aspe	n, Mixed F	Pine P	oletimb	er Well	6.5	26	1-50	N/A		North half of srand was planted red pine through aspen. Aspen has over- topped most of the red pine. Scattered limby white pine was planted
	Canopy Species	% Cover	Size Class	DBH	Age						around as well. Stand just getting pole sized. Old comment- (CC 1992.
	Red Pine	25	Sapling/Pole	4							OPIC - FMD: A3 stand with JP, oak and some red pine throguhout. Will
	Quaking Aspen	73	Pole/Sapling	5	26						most likely develop into mixed stand with JP and aspen being dominant.  Aspen is of good quality and is growing well, descent SI.)
	Red Pine	25	Sapling/Pole	4							Aspen is or good quality and is growing well, descent Si.)
	Quaking Aspen	73	Pole/Sapling	5	26						
59	4119 - Mixed No			Sapling		21.6	5	Immature	N/A		Patchy regen throughout. Open cherry brush through some of it, with pockets of heavily browsed maple and oak. Aspen present, but in small
	Canopy Species		Size Class		Age						pockets through stand.
	Red Maple	35	Sapling	1	5						Old comment (ODIC EMD: Horizotad under contract number 70 000
Bla	ck/Red (Hybrid) Oak	25	Sapling	1							Old comment- (OPIC - FMD: Harvested under contract number 72-609- 11-01 "Winter Oak Jack" in January 2014, snow on conditions. Boundary
	Black Cherry	25	Sapling	1							excluded retention pocket left to buffer KP Lake. 10-20 BA of all
	Quaking Aspen	8	Sapling	1							representative species left near snowmobile trail.)



Stanc	Level 4 Cover Type			Size Density		Acres	Stand Age	e ba kange	Managed Site		General Comments
60	4199 - Other Mixed Upland Deciduous			Sapling Poor		20.8	5	Immature	N/A		South of snowmobile trail is non stocked and contains scatterd jp
	Canopy Species	% Cover	Size Class	DBI	l Age						seedlings and open cherry brush. North of trail poor to moderately stocked maple, aspen, cherry, and oak. Far northern portion of stand is
	Black Cherry	29	Sapling	1							fully stocked aspen and red maple.
	Red Maple	25	Sapling	1							Old account (ODIO FMD Harvested and account at a contract and a 70 000
	Quaking Aspen	35	Sapling	1	5						Old comment- (OPIC - FMD: Harvested under contract number 72-609-11-01 "Winter Oak Jack" in January 2014.)
61	42141 - Planted I Deci	Mixed Pine, iduous	Mixed P	Poletimber Well		39.9	26	1-50	N/A		Jack pine out competing red pine in south side of stand. Large pockets of aspen through stand.Old comment- (OPIC - FMD: Stand planted to a
	Canopy Species	% Cover	Size Class	DBI	H Age						mixture of red pine and jack pine. Small pockets of aspen throughtout. Oak of stump sprout origin are also present in relatively high numbers.
	Red Pine	41	Pole/Sapling	5	26						Red pine/jack pine growing ok, not great. Some damage to leaders on
	Quaking Aspen	25	Pole/Sapling	6							red pine, jack pine is quite bushy indicating a lower site index for each of
	Jack Pine	30	Pole/Sapling	6							these species. Overall, stand is heavier to red pine, quality improves as you move east through stand.)
	Red Pine	41	Pole/Sapling	5	26						
	Quaking Aspen	25	Pole/Sapling	6							
62	4199 - Other Mixed	d Upland D		Saplin	g Well	62.3	16	Immature	N/A		Some aspen just getting into pole size. Square grassy opening around a
62	4199 - Other Mixed			Saplin <b>DBI</b>	l Age	62.3 <b>Sub-Ca</b>	16 Inopy Speci		N/A Avg. Height	Size	Some aspen just getting into pole size. Square grassy opening around a large oak tree looks like well pad from aerial imagry. Appears to be actively mowed site with no access to from state land.Old comment-
62	Canopy Species Bigtooth Aspen	<b>% Cover</b> 36	eciduous Size Class Sapling/Pole	<b>DBI</b>		Sub-Ca Wit	nopy Speci tch Hazel	es Density Medium	Avg. Height 5 - 10 feet	Tall Shrub	large oak tree looks like well pad from aerial imagry. Appears to be actively mowed site with no access to from state land.Old comment-OPIC - FMD: A3 stand with oak and red maple present as well. Most of
	Canopy Species Bigtooth Aspen Red Maple	% Cover 36 35	eciduous Size Class Sapling/Pole Sapling/Pole	<b>DBI</b> 4	l Age	Sub-Ca Wit	nopy Specietch Hazeled Maple	es Density  Medium  Medium	Avg. Height 5 - 10 feet Variable	Tall Shruk	large oak tree looks like well pad from aerial imagry. Appears to be actively mowed site with no access to from state land.Old comment-O(OPIC - FMD: A3 stand with oak and red maple present as well. Most of oak is of stump sprout origin and is of poor quality. Some seed origin
	Canopy Species Bigtooth Aspen	<b>% Cover</b> 36	eciduous Size Class Sapling/Pole	<b>DBI</b>	l Age	Sub-Ca Wit	nopy Speci tch Hazel	es Density Medium	Avg. Height 5 - 10 feet	Tall Shrub	actively mowed site with no access to from state land. Old comment- (OPIC - FMD: A3 stand with oak and red maple present as well. Most of
	Canopy Species Bigtooth Aspen Red Maple ck/Red (Hybrid) Oak	% Cover 36 35	eciduous Size Class Sapling/Pole Sapling/Pole	<b>DBI</b> 4	1 Age 16	Sub-Ca Wit	nopy Specietch Hazeled Maple	es Density  Medium  Medium	Avg. Height 5 - 10 feet Variable	Tall Shruk	large oak tree looks like well pad from aerial imagry. Appears to be actively mowed site with no access to from state land.Old comment-O(OPIC - FMD: A3 stand with oak and red maple present as well. Most of oak is of stump sprout origin and is of poor quality. Some seed origin oak present which is of better quality. Lots of wildlife use within stand.
Bla	Canopy Species Bigtooth Aspen Red Maple ck/Red (Hybrid) Oak	% Cover 36 35 20	eciduous Size Class Sapling/Pole Sapling/Pole	<b>DBI</b> 4 3 4	1 Age 16	Sub-Ca Wit Re	nopy Specietch Hazeled Maple	es Density  Medium  Medium	Avg. Height 5 - 10 feet Variable 5 - 10 feet	Tall Shruk	large oak tree looks like well pad from aerial imagry. Appears to be actively mowed site with no access to from state land.Old comment-O(OPIC - FMD: A3 stand with oak and red maple present as well. Most of oak is of stump sprout origin and is of poor quality. Some seed origin oak present which is of better quality. Lots of wildlife use within stand. Rolling topography, developing into nice stand.)
Bla	Canopy Species Bigtooth Aspen Red Maple ck/Red (Hybrid) Oak 6225	% Cover 36 35 20	eciduous  Size Class Sapling/Pole Sapling/Pole Sapling	DBI 4 3 4 Nonst	1 Age 16	Sub-Ca Wit Re	nopy Specietch Hazeled Maple	es Density  Medium  Medium	Avg. Height 5 - 10 feet Variable 5 - 10 feet	Tall Shruk	large oak tree looks like well pad from aerial imagry. Appears to be actively mowed site with no access to from state land.Old comment- (OPIC - FMD: A3 stand with oak and red maple present as well. Most of oak is of stump sprout origin and is of poor quality. Some seed origin oak present which is of better quality. Lots of wildlife use within stand. Rolling topography, developing into nice stand.)  See old comments.  Old Comments-((OPIC - FMD: Bog on norther side of tank trail. Some short JP snags standing within bog but no spruce/fir overstory as in stand 163 to the south of tank trail. Leatherleaf on ground, some lowland shrubs throughout. (old comment) Over by stand 8, swamp conifers in south part.)  Pole size aspen mostly 6-8". Some oak getting into 8" d-class, but most
Bla	Canopy Species Bigtooth Aspen Red Maple ck/Red (Hybrid) Oak 6225	% Cover 36 35 20 5 - Bog spen, Oak	eciduous  Size Class Sapling/Pole Sapling/Pole Sapling	DBI 4 3 4 Nonst	1 Age 16 16 ocked	Sub-Ca With Ref W 2.5	inopy Special characteristics and Maple characteristics of the Maple chara	Medium Medium Low	Avg. Height 5 - 10 feet Variable 5 - 10 feet No	Tall Shruk	large oak tree looks like well pad from aerial imagry. Appears to be actively mowed site with no access to from state land. Old comment- (OPIC - FMD: A3 stand with oak and red maple present as well. Most of oak is of stump sprout origin and is of poor quality. Some seed origin oak present which is of better quality. Lots of wildlife use within stand. Rolling topography, developing into nice stand.)  See old comments.  Old Comments-((OPIC - FMD: Bog on norther side of tank trail. Some short JP snags standing within bog but no spruce/fir overstory as in stand 163 to the south of tank trail. Leatherleaf on ground, some lowland shrubs throughout. (old comment) Over by stand 8, swamp conifers in south part.)  Pole size aspen mostly 6-8". Some oak getting into 8" d-class, but most are 6". Maple is still mostly sub-merch. Oak is mixed in through most of
Bla	Canopy Species  Bigtooth Aspen Red Maple ck/Red (Hybrid) Oak  6225	% Cover 36 35 20 5 - Bog spen, Oak	eciduous  Size Class Sapling/Pole Sapling/Pole Sapling	DBI 4 3 4 Nonst	1 Age 16 16 Docked	Sub-Ca With Ref W 2.5	inopy Specie tch Hazel ed Maple hite Oak	Medium Medium Low	Avg. Height 5 - 10 feet Variable 5 - 10 feet No	Tall Shruk Sapling Sapling	large oak tree looks like well pad from aerial imagry. Appears to be actively mowed site with no access to from state land. Old comment- (OPIC - FMD: A3 stand with oak and red maple present as well. Most of oak is of stump sprout origin and is of poor quality. Some seed origin oak present which is of better quality. Lots of wildlife use within stand. Rolling topography, developing into nice stand.)  See old comments.  Old Comments-((OPIC - FMD: Bog on norther side of tank trail. Some short JP snags standing within bog but no spruce/fir overstory as in stand 163 to the south of tank trail. Leatherleaf on ground, some lowland shrubs throughout. (old comment) Over by stand 8, swamp conifers in south part.)  Pole size aspen mostly 6-8". Some oak getting into 8" d-class, but most are 6". Maple is still mostly sub-merch. Oak is mixed in through most of stand with small oak dominated pockets throughout.Old comments-
63 64	Canopy Species Bigtooth Aspen Red Maple ck/Red (Hybrid) Oak 6225	% Cover   36   35   20   5 - Bog   spen, Oak   % Cover	eciduous  Size Class Sapling/Pole Sapling Sapling	DBH 4 3 4 Nonstr	1 Age 16 16 ooked	Sub-Ca With Ref W 2.5  57.7  Sub-Ca With	anopy Specietch Hazel ed Maple hite Oak	Medium Medium Low  51-80  Bes Density	Avg. Height 5 - 10 feet Variable 5 - 10 feet No No N/A Avg. Height	Tall Shruk Sapling Sapling	large oak tree looks like well pad from aerial imagry. Appears to be actively mowed site with no access to from state land. Old comment- (OPIC - FMD: A3 stand with oak and red maple present as well. Most of oak is of stump sprout origin and is of poor quality. Some seed origin oak present which is of better quality. Lots of wildlife use within stand. Rolling topography, developing into nice stand.)  See old comments.  Old Comments-((OPIC - FMD: Bog on norther side of tank trail. Some short JP snags standing within bog but no spruce/fir overstory as in stand 163 to the south of tank trail. Leatherleaf on ground, some lowland shrubs throughout. (old comment) Over by stand 8, swamp conifers in south part.)  Pole size aspen mostly 6-8". Some oak getting into 8" d-class, but most are 6". Maple is still mostly sub-merch. Oak is mixed in through most of stand with small oak dominated pockets throughout.Old comments-



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age BA Range	Managed Site	General Comments
65	500 - Water	Nonstocked	32.5	Unspecified	No	Checked site September 2, 2019. A handful of stems have resprouted in the initial treatment area. One outlier stems was noted on the mudflat to the northwest. No flowering stems yet.  Old Comments: Jones Lake, with Quality Fishing regulations in place. Two small patches of Eurasian Phragmites were identified near an informal boat slip north of the Jones Lake State Forest Campground dayuse area. The patches were treated in 2017 (H72-836) with an aquatics-approved glyphosate solution, applied by hand-swiping individual stems. The patches were checked in July 20, 2018; no live stems were visible. Lakeshore was re-checked by kayak 9-2-19. Phrag at treated site is resprouting (no seed heads established). Outlier phrag stem noted on mudflat to north. Re-treat in 2020.
66	500 - Water	Nonstocked	1.7		No	See old comments.
						Old Comments- (OPIC - FMD: Small area of open water on SW edge of Jones Lake. During periods of high water, this area is part of Jones Lake.)
67	500 - Water	Nonstocked	1.0		No	See old comments.
						Old Comments- (OPIC - FMD: Small area of open water on southern side of Jones Lake. During periods of high water, this area is part of Jones Lake.)
68	500 - Water Nonstocked		7.2		No	OPIC - FMD: Southern end of KP Lake. Public access to lake is at southern end, accessed through stand 48. (no old comment)
69	500 - Water Nonstocked		0.3		No	OPIC - FMD: Southern tip of Little KP Lake (Private). (no old comment)
107	6225 - Bog	Nonstocked	3.7		No	See old comments.
						Old Comments- (OPIC - FMD: Bog with low L-type shrubs throughout. Some pockets of standing water, evidence that stand is part of Jones Lake during times of high water. Some small snags of birch and jack pine around perimter indicating fluctuating water tables/levels within stand.)
129	4130 - Aspen	Sapling Well	11.2	18 Immature	N/A	Drainage on northeast side of stand has heavy oak and looks to be seasonably wet at bottom. Aspen in south half of stand is a smaller than
C	Canopy Species % Cover Size	Class DBH Age				north half and has more oak and jack pine mixed in. Old Comment-
	· · · · · · · · · · · · · · · · · · ·	ng/Pole 3 18				(OPIC - FMD: A3 stand growing fairly well since being cut in 2001.  Previously this stand was part of stand 29 and along with stand 25 was
Black	/Red (Hybrid) Oak   7   Sa	apling 2				the only area to be harvested before contract was returned to state with portions of sale uncut. Stand 29 is prescribed again this YOE in an attempt to get northern portions cut. (old comment) South half cut all, North half cut all except oak over 8 inches DBH, steep hill on east side. Twp. Supervisor said no problem with no buffer for this stand along Co. RD. 612. Stand is part of timbersale (7204101-01) which was sold to Helsel Forest Products who were high bidders. After cutting unit 4 only (17 acres), went out of business. Sale will be re-advertised with the reduced acres and forest product.)



190   419 - Other Mixed Upland Deciduous   Sandimber Well   5.5   82   1111-14.0   N/A   Stand located on high ridge overlocking. Jack and highway 612 (highway 612   419 - Other Mixed Upland Deciduous with Poletimber Poor Canopy Species   K Cover Size Class   DBH Age   Sub-Canopy Species   No. Canopy	Stand	I Level 4 C	Level 4 Cover Type			Size Density		Stand Age E	BA Range	Managed Site		General Comments
Canopy Species   Cover   Size Class   DBH Age   Black/Red (Hybrid) Oak   Log Pole   10 82   Black/Red (Hybrid) Oak   10 PolesLog   9   Black/Red (Hybrid) Oak   10 PolesLog   9   White Dank   Black/Red (Hybrid) Oak   10 PolesLog   9   White Pine   Trace   Variable   Sapling   Variable   Sapling   Variable   Sapling   Variable	130	4199 - Other Mixed Upland Deciduous			Sawtimber Well		5.5	5.5 82		N/A		
White Oak 48 LogPole 10 82 White Oak Medium - 5 feet Sapling Bigoth Rapen, as 6 PolarLog 9 Bigoth Rapen, as 6 PolarLog 9 Whate Pine 1 Trace Variable Sapling Bigoth Rapen, ref pine and red maple present as well. Aspen in descent if a in some places. Some places. Some places. Some places some places for increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in order to increase 8A and OBH and then final harvest until next VOE in or		Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	browsed.Old comments -(OPIC - FMD: Oak stand of poor quality.
Black/Red (Hybrid) Oak 10 Potential) 9 White Pine Trace Variable Sapling with stand 30 to the north-which was previously part of stand 130 but is now separated because of small G9 stand-411.)  135 42220 - Natural Jack Pine Sawtimber Medium 37.1 66 51-80 N/A  Logy Species Vicover Size Class DBH Age Jack Pine 80 Logy Fole 10 66 Red Pine 7 Logy FoleXLog 12 Black/Red (Hybrid) Oak 10 Log/XLog 15 Black/Red (Hybrid) Oak Bedium 10 - 20 feet Sapling Oak Sapling 9 Jack Pine 30 Sapling 9 Jack Pine 40 Ja		White Oak	48	Log/Pole	10	82	Wh	ite Oak	Medium	< 5 feet	Sapling	Aspen, red pine and red maple present as well. Aspen in descent #'s in some places. Some pockets of fair oak regeneration, not great. Wait
Septing   Sept		Bigtooth Aspen	35	Pole/Log	9		Black/Red	d (Hybrid) Oak	Low	< 5 feet	Sapling	
135   42220 - Natural Jack Pine   Sawtimber Medium   37.1   66   51-80   N/A   Jack Pine   Sawtimber Medium   Jack Pine   Ja	Bla	ck/Red (Hybrid) Oak	10	Pole/Log	9		Wh	ite Pine	Trace	Variable	Sapling	
Canopy Species % Cover Size Class DBH Age     Jack Pine					, ,				,			
Ganopy Species	135	42220 - Nat	ural Jack P	ine Sa	awtimber	Mediur	m 37.1	66	51-80	N/A		
Red Pine 7 Log/Pole/XLog 12 Black Cherry Medium 10 - 20 feet Sapling Black/Red (Hybrid) Oak 10 Log/XLog 15 Black/Red (Hybrid) Oak Medium 10 - 20 feet Sapling Black/Red (Hybrid) Oak Medium 10 - 20 feet Sapling Black/Red (Hybrid) Oak Medium 10 - 20 feet Sapling Oxyon Sapling Poor		Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	The mortality pockets. Stand is adjacent to highway 612.
Black/Red (Hybrid) Oak 10 Log/XLog 15 Black/Red (Hybrid) Oak Beech 10 - 20 feet Beech 10 - 20 feet 10 - 20 fe		Jack Pine	80	Log/Pole	10	66	Wh	ite Oak	Low	10 - 20 feet	Sapling	
Black/Red (Hybrid) Cak		Red Pine	7	Log/Pole/XLo	og 12		Blac	k Cherry	Medium	Variable	Sapling	
Beech   Trace   10 - 20 feet   Sapling   on eastern side of stand. Stand 135 was previously part of this stand but was separated because of Stephan Bridge Rd running through stand, (old comment) Stand 38 is the cut area for this stand. No need for a fuel break along Stephan Bridge rd.)    138	Bla	ck/Red (Hybrid) Oak	10	Log/XLog	15		Black/Red	d (Hybrid) Oak	Medium	10 - 20 feet	Sapling	
138							Е	Beech	Trace	10 - 20 feet	Sapling	on eastern side of stand. Stand 135 was previously part of this stand but
Canopy Species												(old comment) Stand 38 is the cut area for this stand. No need for a fuel
Jack Prine 30 Sapling 3 Sapling Saplin	138						16.4	16	Immature	N/A		
Black/Red (Hybrid) Oak 10 Sapling 3 Black Cherry 20 Sapling 2 Quaking Aspen 40 Sapling 3 16  161 4191 - Mixed Upland Deciduous with Poletimber Poor Confer Confer Size Class DBH Age Jack Pine 30 Sapling/Pole 4 Quaking Aspen 39 Pole 5 27  163 6224 - Treed Bog Nonstocked 5.0 No OPIC - FMD: Bog on southern side of tank trail. This bog was previously part of bog on north side of tank trail, stand 63. Separated because this stand has more overstory spruce/fit present. Also has quite a few jack pine snags standing near perimeter of stand with some larger-live individuals in treed portion. (old comment) Over by stand 8, swamp confers in south part.  Canopy Species % Cover Size Class DBH Age Jack Pine 30 Sapling Medium 16.3 16 Immature N/A Unplanted stand split from parent stand 38. Dense aspen through most of stand. East side is more open cherry brush, oak, and natural jack pine. Harvested in 2003, Multiple Appendage (72-034-01). No old comments.						Age						There are a couple stringers of planted jack pine that cut through the east
Black Cherry 20 Sapling 2 Quaking Aspen 40 Sapling 3 16  161 4191 - Mixed Upland Deciduous with Poletimber Poor Conifer  Canopy Species % Cover Size Class DBH Age Jack Pine 30 Sapling/Pole 4 Quaking Aspen 39 Pole 5 27  163 6224 - Treed Bog Nonstocked 5.0 No OPIC - FMD: Bog on southern side of tank trail. This bog was previously part of bog on north side of tank trail, stand 63. Separated because this stand has more overstory spruce/fir present. Also has quite a few jack pine snags standing near perimeter of stand with some larger-live individuals in treed portion. (old comment) Over by stand 8, swamp conifers in south part.  238 4130 - Aspen Sapling Medium 16.3 16 Immature N/A Unplanted stand split from parent stand 38. Dense aspen through most of stand. East side is more open cherry brush, oak, and natural jack pine. Harvested in 2003, Multiple Appendage (72-034-01). No old comments.  Black/Red (Hybrid) Oak 8 Pole/Sapling 6												
Quaking Aspen   40   Sapling   3   16	Bla											Harvested in 2003, Multiple Appendage (72-034-01). No old comments.
161 4191 - Mixed Upland Deciduous with Conifer Conifer Conifer Conifer Canopy Species				· · ·								
Canopy Species		Quaking Aspen	40	Sapling	3	16						
Canopy Species   % Cover   Size Class   DBH Age	161				Poletimber Pod		6.6	27	1-50	N/A		
Quaking Aspen 39 Pole 5 27  163 6224 - Treed Bog Nonstocked 5.0 No OPIC - FMD: Bog on southern side of tank trail. This bog was previously part of bog on north side of tank trail, stand 63. Separated because this stand has more overstory spruce/fir present. Also has quite a few jack pine snags standing near perimeter of stand with some larger-live individuals in treed portion. (old comment) Over by stand 8, swamp conifers in south part.  238 4130 - Aspen Sapling Medium 16.3 16 Immature N/A Unplanted stand split from parent stand 38. Dense aspen through most of stand. East side is more open cherry brush, oak, and natural jack pine. Harvested in 2003, Multiple Appendage (72-034-01). No old comments.  Black/Red (Hybrid) Oak 8 Pole/Sapling 6		Canopy Species	% Cover	Size Class	DBH	Age						not planted to red pine. (no old comment)
163 6224 - Treed Bog Nonstocked 5.0 No OPIC - FMD: Bog on southern side of tank trail. This bog was previously part of bog on north side of tank trail, stand 63. Separated because this stand has more overstory spruce/fir present. Also has quite a few jack pine snags standing near perimeter of stand with some larger-live individuals in treed portion. (old comment) Over by stand 8, swamp conifers in south part.  238 4130 - Aspen Sapling Medium on the stand split from parent stand 38. Dense aspen through most of stand. East side is more open cherry brush, oak, and natural jack pine. Harvested in 2003, Multiple Appendage (72-034-01). No old comments.  Black/Red (Hybrid) Oak 8 Pole/Sapling 6		Jack Pine	30	Sapling/Pole	9 4							
part of bog on north side of tank trail, stand 63. Separated because this stand has more overstory spruce/fir present. Also has quite a few jack pine snags standing near perimeter of stand with some larger-live individuals in treed portion. (old comment) Over by stand 8, swamp conifers in south part.    238		Quaking Aspen	39	Pole	5	27						
Canopy Species % Cover Size Class DBH Age  Jack Pine 12 Sapling 3  Black/Red (Hybrid) Oak 8 Pole/Sapling 6	163	6224 - <sup>-</sup>	Treed Bog		Nonsto	cked	5.0			No		part of bog on north side of tank trail, stand 63. Separated because this stand has more overstory spruce/fir present. Also has quite a few jack pine snags standing near perimeter of stand with some larger-live individuals in treed portion. (old comment) Over by stand 8, swamp
Jack Pine 12 Sapling 3  Black/Red (Hybrid) Oak 8 Pole/Sapling 6	238		•				16.3	16	Immature	N/A		of stand. East side is more open cherry brush, oak, and natural jack pine.
Black/Red (Hybrid) Oak 8 Pole/Sapling 6						3-						narvesteu in 2005, ividitipie Appendage (72-034-01). No oid comments.
	Bla	ck/Red (Hybrid) Oak	8									
		, , ,	75			16						



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	ite	General Comments
338 Blac	42220 - Nate Canopy Species Jack Pine ck/Red (Hybrid) Oak		Size Class Sapling Sapling	Sapling Medium  DBH Age  3 16 3		9.1	16	Immature	N/A		Unplanted stand split from parent stand 38. Dense pockets of aspen with open grassy areas mixed in throughout stand. Oak and aspen mixed through some of the stand. Some scattered pole size jack pine, red pine, oak, and white pine that look like they were advanced regen protected during harvest. Harvested in 2003, Multiple Appendage (72-034-01). No old comments.
401	3102	- Grass		Nonstocked		5.1			Managed Opening	pening	Open field adjacent to fenced in military installation. Looks like it may be mowed periodically. Scattered white pine, hybrid oak, and cherry closer to the Ausable.
											Old Comment-OPIC - FMD: Grassy opening with scattered shrubby JP and cherry. Could be called u-type or GO. Knapweed present along tank trail with some big/little bluestem on interior of stand. Facility in compartment to the west, shooting range?
409	3102 - Grass			Nonstocked		81.6		Unspecified	No		See old comments-OPIC - FMD: Budweiser Hill area. Lots of tracked vehicle use within stand. Some erosion on hill. Scattered shrubby JP, mostly in NW portions of stand. (old comment) Has areas of brush and JP, military tracked vehicle use area. Firing point 600 is in stand.
411	4126 - White, E	Black, N. Pi		Sapling N	ledium Age	1.1	16	Immature	N/A		Stand has converted from opening to forested. Oaks recruited 10-20' and dominate the canopy now. Some older jack pine in stand, but not enough
Blad	Canopy Species ck/Red (Hybrid) Oak	65	Sapling	2	16						to call it 2 aged. Old Comment- (OPIC - FMD: New stand, grassy opening separating stands 30 and 130. Some shrubby jack pine on
Dia	White Oak	20	Sapling	2	10						eastern side of stand. Some cherry brush within stand. Previously was
	Jack Pine	15	Pole	8							part of stand 30 and is the reason stand 30 was broken up.)
423	3102	- Grass		Nonsto	cked	10.5			No		Opening was drawn to include powerline and road ROW.OPIC - FMD: Grassy opening along CR-612. Some JP and RP with occasional oak seed/saps. Some erosion from 2-tracks within stand that go up and down a few of the sloped areas. (old comment) By the road some JP.
445	42260 - Natural Pine, Mixed Deciduous			Poletimber Poor		2.4	4 54	1-50	N/A		Converted stand from non-forested to forested. Still a lot of open area in
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size	stand. Aspen looks to be around 40 years old. Old Comments- (OPIC - FMD: Some shrubby jack pine beginning to encroach on stand.
	Jack Pine	45	Log/Pole		54	Ja	ack Pine	Low	Variable	Sapling	Will possibly be a J4 stand next YOE, however not yet merchantable/very
	Quaking Aspen	40	Pole	7							poor quality. (old comment) Some JP crowding in.)
	Red Pine	15	Log	12							