

Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72245 Entry Year 2024 Acreage: 1,726

County Crawford

Management Area: Camp Grayling

Stand Examiner: Dakota Ewald

Legal Description:

T28NR3W, Sections 1, 2 and 3 Maple Forest Township

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:

Soil types within the compartment consist of some Montcalm and Blue Lake Loamy sands, Rubicon-Graycalm Complex, Kalkaska sand, Graycalm-Grayling Complex and Croswell sands on the upland areas. On the lowland areas, soils consist of Tawas-Leafriver Complex, Dawson and Loxley mucks.

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

Ownership within the compartment consists mostly of state and military board lands with some private residences around Section One Lake and Gutherie Lake. Section 1 and a portion of section 2 are military board land. The National Guard Air to Ground Range is located in section 1. The remainder of section 2 is leased to the National Guard under L-1479 allowing for usage by the military during their encampment with no permanent buildings or improvements to be erected. Section 3 has a private 80 acre parcel located within it and the state lands are leased to the National Guard under a 10 year management agreement to allow for camping and maneuvers, but does not allow use of heavy equipment or high intensity live ammunition firing. There are several residences surrounding the compartment on the west side and north side including those around Section One Lake and Gutherie Lake.

Unique Natural Features:

A unique and natural feature within the compartment is the Hill's Thistle.

Archeological, Historical, and Cultural Features:

The east part of the compartment contains a small portion of the National Guard Air to Ground Range.

Special Management Designations or Considerations:

Hill's Thistle is located within the compartment and needs special management considerations. Besides the small portion of the National Guard Air to Ground Range in the east part of the compartment, there are several military firing points along White Road, that runs north and south between section 2 and 3 of the compartment. These designated sites need special management considerations to meet the needs of the military. Two other special considerations within the compartment that need to be considered are the antrim gas well sites and visual management of stands along Sherman Road and around Section One and Gutherie Lakes.

Watershed and Fisheries Considerations:

The compartment contains Marsh Lake; a large portion of Section One Lake, and a small portion of Gutherie Lake. Both Gutherie Lake and Section One Lake have access sites.

Wildlife Habitat Considerations:

White-tailed Deer, Ruffed Grouse, Black Bear and Wild Turkey. Maintain Aspen types and improve the age distribution of these types within the compartment.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. Glacial drift thickness varies between 600 and 1,000 feet. There is elevation relief of approximately 150 feet in the compartment. Beneath the glacial drift is the Coldwater Shale. There is not an economic use for the Coldwater Shale. The nearest gravel pit is located two miles to the west. Gravel potential is thought to be good in the upland areas. Part of the compartment is the State Military Reservation. Two-thirds of the compartment is leased and has been developed for

Antrim Shale gas production. Section 3 contains several Antrim well sites and two processing facilities.

Vehicle Access:

Sherman Road runs north and south along the west side of compartment. Krause Road runs east and west along the north side of compartment and Calker Road runs east and west along the south side of compartment. Several two-track trails branch off these roads into the compartment. White Road runs north and south between sections 2 and 3. Briggs Road run along the west side of Section One Lake and a Tank trail runs along the fenced Air to Ground Range in Section 1. Roads leading to antrim well sites in section 3 are gated but the oil companies are not keeping gates closed and locked. All new roads constructed for timber sales are to be closed upon completion of the sale. No other trails have been identified for closure. Most trails appear to be actively used by the military.

Survey Needs:

None.

Recreational Facilities and Opportunities:

Recreational facilities within the compartment consist of a developed boating access site on the south end of Gutherie Lake that is managed by Parks and Recreation Division. An undeveloped access site is located on the southwest side of Section One Lake. Recreation opportunities include camping, boating, fishing and hunting. Note: There is heavy dispersed camping around section one lake. There is also a lot of illegal ORV trails and RDR's in this area as well.

Fire Protection:

The east side of the compartment is somewhat susceptible to fires that escape from the National Guard Air to Ground Range. However, forest cover types within the compartment are less likely to cause any major fire problems or suppression efforts. Access to and within the compartment for fire equipment is not a problem and lakes within the compartment provide a good source of water supply.

Additional Compartment Information:

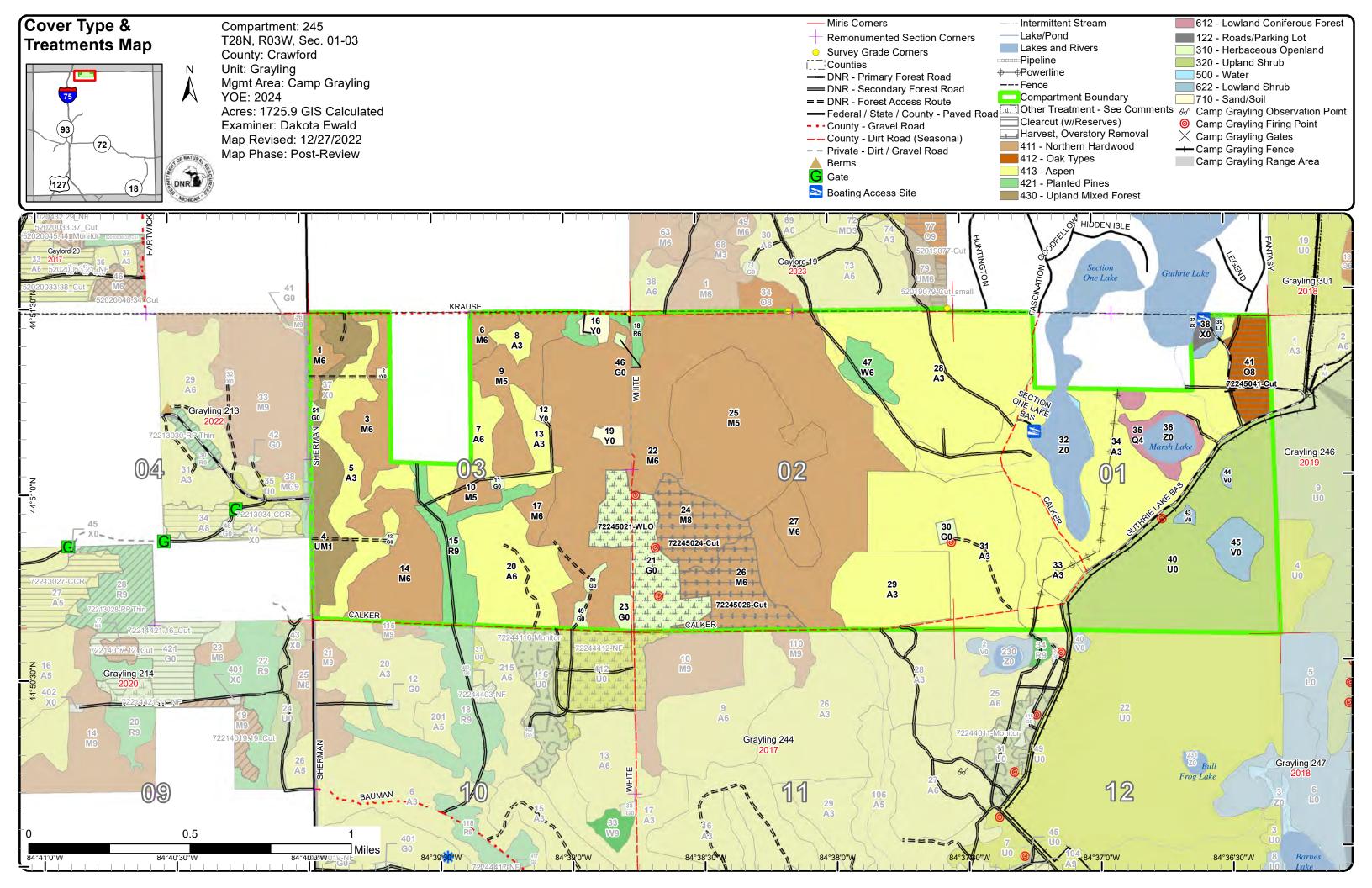
None.

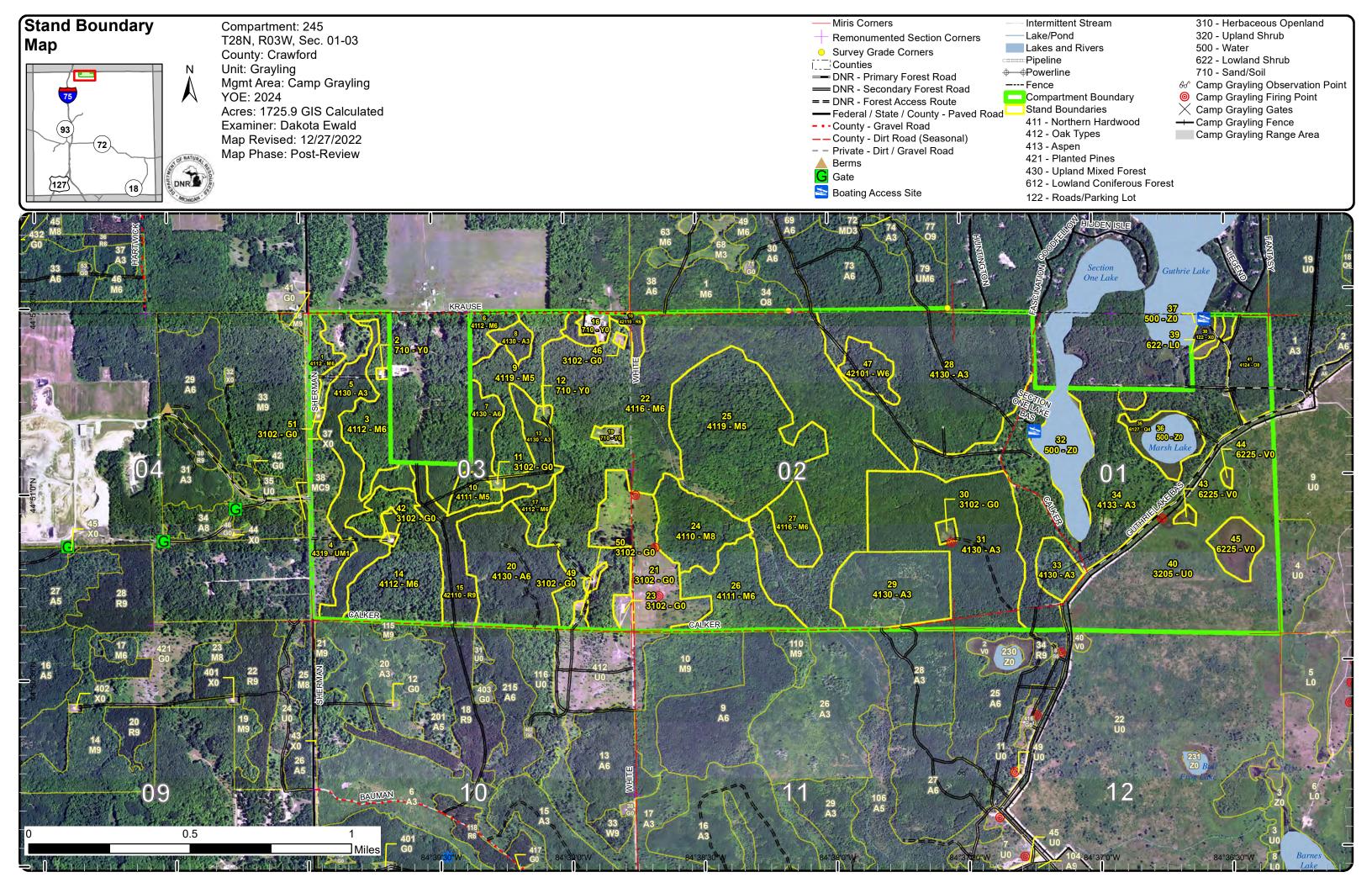
The following reports from the Inventory are attached:

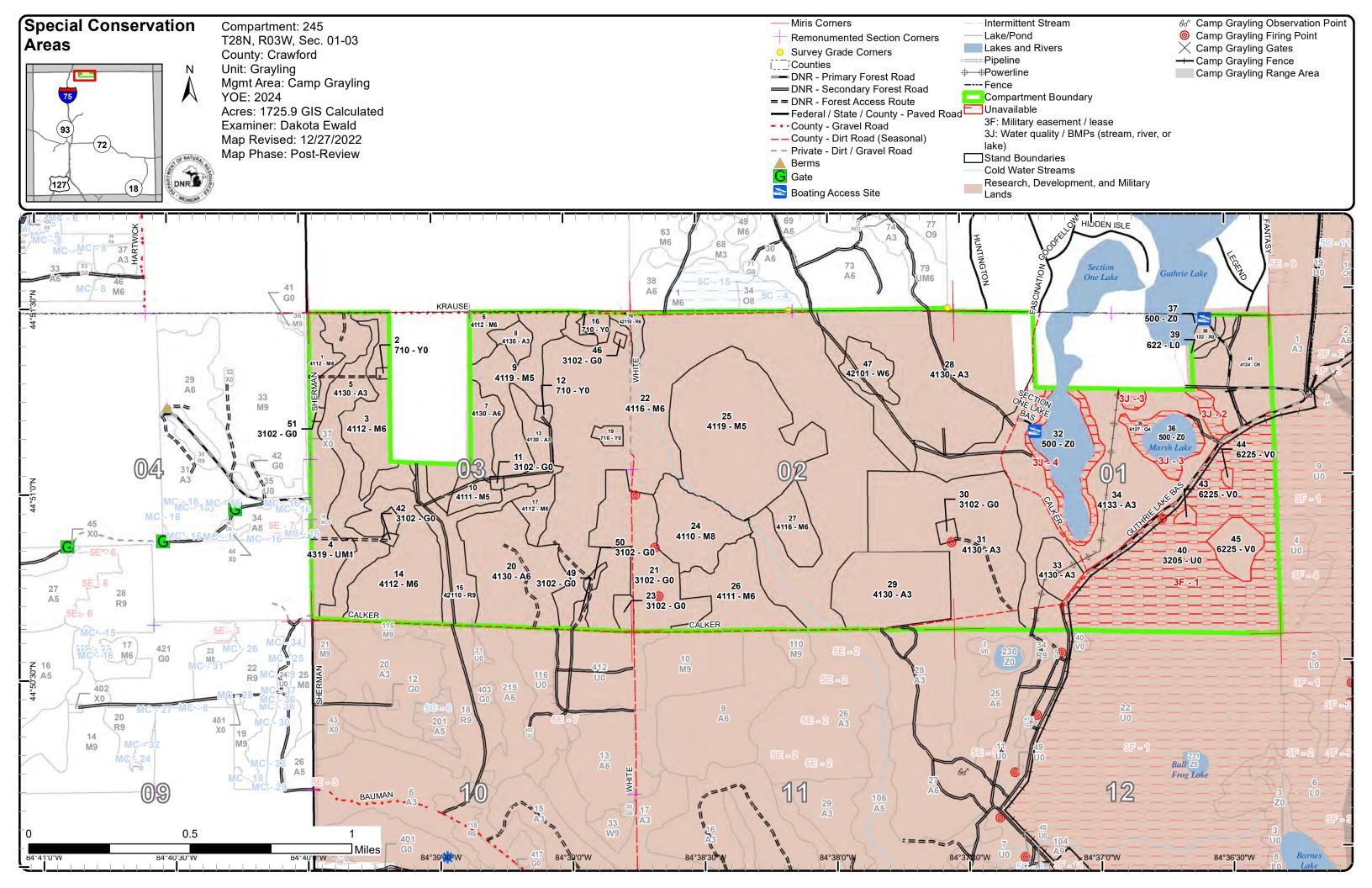
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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







Compartment 245 Year of Entry 2024

Grayling Mgt. Unit

Dakota Ewald: Examiner



Age Class

	, sor	ROS C	\$ \ \ <u>\</u>	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	S S	3 / 6	S. S	/ % &					/a/2				8 × × × × × × × × × × × × × × × × × × ×	, 3re	A A A A A A A A A A A A A A A A A A A
Aspen	0	0	217	65	338	0	0	0	0	0	0	0	0	0	0	0	0	0	620
Bog	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Herbaceous Openland	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Lowland Conifers	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	16
Lowland Shrub	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Northern Hardwood	0	0	0	0	0	0	0	0	91	542	0	39	0	0	0	0	0	0	671
Oak	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	25
Red Pine	0	0	0	0	0	9	0	31	0	0	0	0	0	0	0	0	0	0	40
Sand, Soil	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Upland Mixed Forest	0	0	0	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	43
Upland Shrub	158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158
Urban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Water	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
White Pine	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	14
Total	298	0	217	65	338	52	0	47	91	567	14	39	0	0	0	0	0	0	1727



Report 2 – Treatment Summary

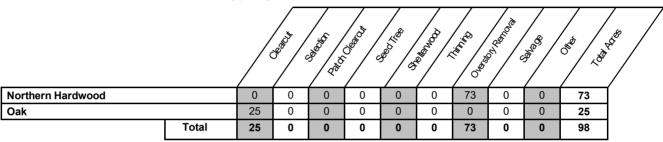
Grayling Mgt. Unit Year of Entry: 2024

Acres of Harvest

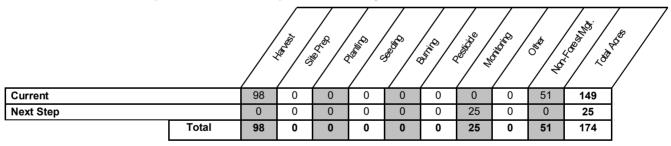
Compartment 245
Total Compartment Acres: 1,726

Commercial Harvest - 98 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



s t а n d

Treatment Name

Acres

Stand CoverType

Size Density Stand BA Age Range **Treatment** Type

Treatment Method

Cover Type Objective

Age Structure Habitat Cut

No

Approved Treatments:

50.7 21 72245021-3102 - Grass Nonstocked NonForestMqt Other - Specify 310 -WI O Herbaceous

Openland

Prescription Approved prescription specifications for the 10-year entry window that may be carried out under this FTP include: Manage for a shortgrass Specs: prairie. Periodic opening maintenance may include disking, fertilizing, seed planting, tree and shrub planting, mowing, brushing, burning, tree pruning, and herbicide application. Protect the apple trees. Protect and promote the MNFI-recorded rare plant species.

Next Step Treatments:

Acceptable Regen:

Other Treatment through FTP W72-813 was approved by variance on 12-19-2016. Wildlife Habitat Grant money was received for this work, and the Comment: National Wild Turkey Federation and Camp Grayling are partners in the project.

Site Condition:

Proposed Start Date: 10/1 /2020

72245024-Cut 34.1 4110 - Sugar Maple Sawtimber 86 1-50 Harvest Overstory 4112 - Maple. Nο Two-Aged Association Medium Removal Beech, Cherry Association

Prescription Overstory removal with retention. Focus retention around wildlife opening in stand 21. Protect all advanced sugar maple regen. Scatter tops to protect regen. Add military specs. Specs:

Next Step **Treatments:**

Acceptable Well-stocked stand dominated by Sugar Maple with a mix of red maple, beech, basswood and aspen.

Regen: Other

Request chipping exemption from the military.

Comment:

Site Condition:

10/1 /2023 Proposed Start Date:

72245026-Cut 38.5 4111 - S.Maple, Poletimber 100 81-110 Harvest Overstory 4112 - Maple, Even-Aged No Hard Mast Well Removal Beech, Cherry Association Association

Prescription Overstory removal with retention. Focus retention around wildlife opening in stand 21. Protect all advanced sugar maple regen. Scatter tops to Specs: protect regen. Add military specs.

Next Step **Treatments:**

Acceptable Well-stocked stand dominated by Sugar Maple with a mix of red maple, beech, basswood and aspen. Regen:

Request chipping exemption from the military. Other 1 4 1 Comment:

Site Condition:

Proposed Start Date: 10/1 /2023

S t a	Gray	/ling Mgt. Unit		Repoi	rt 3 '	Treatments		Compartmer Year of Entr		DNR DICHIGAN
n Treatr d Nan		s Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
41 722450)41-Cut 25	.2 4124 - Red with White Oak	Sawtimbe Medium		51-80	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Uneven- Aged	No
Prescription Specs:		retention. Cut all mero on along private line at								present.
Next Step Treatments:	Monitoring, Na	atural Regen (Re-Inver	ntory)							
Acceptable Regen:	Mixed Oak, R	ed Maple, and Aspen	that meet mi	nimum	stocking r	equirements.				
Other Comment:		oing exemption from thes). Also, take special	•					•		info in draft
Site Conditio	<u>n:</u>									

Total Treatment Acreage Proposed: 148.5

Proposed Start Date: 10/1 /2023

Compartment: 245

Grayling Mgt. Unit

Dakota Ewald : Examiner Year of Entry: 2024

Availa	ability for	Managemer	nt				
Total	Acres	Acres Avail	Acres		Domina	nt Site	Conditions
Acres	Available	With Condition	Not Available		3F	3J	
621	601	0	20	Aspen		20	
17	17	0	0	Bog			ı
66	66	0	0	Herbaceous Openland			ı
16	0	0	16	Lowland Conifers		16	
3	3	0	0	Lowland Shrub			
671	671	0	0	Northern Hardwood			
25	25	0	0	Oak			ı
39	39	0	0	Red Pine			
10	10	0	0	Sand, Soil			ı
43	43	0	0	Upland Mixed Forest			
158	0	0	158	Upland Shrub	158		u.
4	4	0	0	Urban			*
40	40	0	0	Water			u.
14	14	0	0	White Pine			
1,726	1,531		194	Total Forested Acres	158	36	
	89%		11%	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	vailable 3F: Military easement / lease		Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Fenced Range 40						
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
(Comments:						

Report 4 – Site Conditions

Compartment: 245

Grayling Mgt. Unit

Dakota Ewald : Examiner Year of Entry: 2024

3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	16	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	15	Unspecified	Unspecified	Unspecified	Unspecified
1	Comments:						

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: 245
Year of Entry 2024



Report 6 - EXISTING SPECIAL CONSERVATION AREA DETAILS

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

Conservatio Area	n Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen constocked trout populations and those of other coldwater fish specyear to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such stream designated as trout resources by Fisheries Order 210.	cies (e.g., slimy sculpin) to persist from ese 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 12,00 Area, the Beaver Islands Archipelago Wildlife Research Area (the High and Hog Islands, all state owned land on Beaver, South For Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research, and over 144,000 acres of Military Lands.	00 acre Houghton Lake Wildlife Research nat includes most of Garden Island, all of ox and North Fox Islands), the Cusino

Report 7 - Stands



Stand	d Level 4 C	over Type		Size [Density	Acres	Stand Age	BA Range	Managed S	ite	General Comments
1	4112 - Maple, Beed	ch, Cherry A	Association I	Poletim	nber Well	9.3	70	51-80	N/A		Stand was thinned down to 80 ba in 2006 as a part of the sale Comp 245
	Canopy Species	% Cover	Size Class	DE	BH Age	Sub-Ca	anopy Specie	s Density	Avg. Height	Size	Mix 72-067-04.
	Red Maple	25	Pole/Log	9			Beech	High	5 - 10 feet	Sapling	
	Sugar Maple	48	Pole/Log	9	70	lı	ronwood	Low	10 - 20 feet	Sapling	
	Basswood	5	Pole/Log	9		R	ed Maple	Medium	5 - 10 feet	Sapling	
	Beech	20	Pole/Log	9		ŀ	Hemlock	Trace	5 - 10 feet	Sapling	
	Yellow Birch	2	Pole/Log	9		Bla	ack Cherry	Medium	5 - 10 feet	Sapling	
2	710 - \$	Sand, Soil		Nons	stocked	0.9					Natural gas/well site.
3	4112 - Maple, Beed	-			nber Well	28.3	85	81-110	N/A		Decent quality mixed hardwood stand consisting mainly of sugar maple, recompany, and beech. There are also pockets of lower quality with split stems
	Canopy Species		Size Class		BH Age		anopy Specie		Avg. Height	Size	and some mortality, especially among aspen.
	Red Maple	25	Pole/Sap/Log	_			ellow Birch	Trace	10 - 20 feet	Sapling	
	Beech	20	Pole/Sap/Log	0		Pa	aper Birch	Trace	10 - 20 feet	Sapling	
	Bigtooth Aspen	13	Pole/Sap/Log	_			Beech	High	< 5 feet	Sapling	
	Basswood	2	Pole/Log	8			ack Cherry	Low	5 - 10 feet	Sapling	
	Sugar Maple	40	Pole/Sap/Log	g 8	85	lı	ronwood	Medium	5 - 10 feet	Sapling	
4	4319 - Mixed	d Upland Fo	prest	Saplii	ng Poor	43.0	45	1-50	N/A		Stand is fairly open with alternating patches of saplings and openings.
	Canopy Species	% Cover	Size Class	DE	BH Age	Sub-Ca	anopy Specie	s Density	Avg. Height	Size	There are some pole sized trees but saplings are dominant throughout.
	Scotch Pine	40	Sapling/Pole	9 4	45	V	/hite Pine	Low	< 5 feet	Sapling	
	Black Cherry	18	Sapling/Pole	9 3		Bigt	ooth Aspen	Medium	< 5 feet	Sapling	
	White Pine	13	Sapling	3		Sc	cotch Pine	High	< 5 feet	Sapling	
	Red Maple	13	Sapling	3							
	Bigtooth Aspen	16	Sapling	1							
5		- Aspen			ng Well	50.0	27	Immature	N/A		Dense and healthy looking stand of young Aspen.Stand was harvested as a part of the sale Strawberry Aspen in 1995.
	Canopy Species	% Cover			BH Age						
	Quaking Aspen	80	Sapling/Pole								
	Ironwood	2	Sapling	1							
	Red Maple	6	Sapling	1							
	Black Cherry	2	Sapling	1							
	Beech	10	Sapling	1							

Grayling Mgt. Unit



Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
6	4112 - Maple, Beed	ch, Cherry A	ssociation	Poletimb	er Well	9.3	80	51-80	N/A		Decent quality Hardwood stand dominated by sugar maple. Understory is
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	heavy to beech. There is a small inclusion of planted red pine in the easter part of the stand. Thinned to approx 70 BA in 2001.
	Sugar Maple	76	Pole	5	80		Beech	High	5 - 10 feet	Sapling	part of the stand framework to approxime 200 ft.
	Red Maple	10	Pole	5		Pa	per Birch	Trace	5 - 10 feet	Sapling	
	Red Pine	4	Log/Pole	10		Ye	llow Birch	Trace	5 - 10 feet	Sapling	
	Bigtooth Aspen	10	Pole	5		Bla	ck Cherry	Medium	5 - 10 feet	Sapling	
				,		Su	gar Maple	Low	5 - 10 feet	Sapling	
7	4130	- Aspen		Poletimb	er Well	21.0	34	51-80	N/A		Good young stand of Aspen that is putting on good growth. There is a
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	decent understory dominated by sugar maple.
	Ironwood	10	Sapling	1		Su	gar Maple	High	5 - 10 feet	Sapling	
	Red Maple	10	Sapling	1			Beech	Medium	5 - 10 feet	Sapling	
	Quaking Aspen	80	Pole/Sapling	g 5	34	Bla	ck Cherry	Low	5 - 10 feet	Sapling	
			· ·			Re	ed Maple	Medium	5 - 10 feet	Sapling	
8	4130	- Aspen		Sapling	Well	6.2	30	1-50	N/A		Young aspen stand that is starting to come into the low end of the pole
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	class.Was cut in 1995.
	Bigtooth Aspen	100	Sapling/Pole	е 3	30	Su	gar Maple	High	5 - 10 feet	Sapling	
				,		Re	ed Maple	Low	5 - 10 feet	Sapling	
						Bla	ck Cherry	Medium	10 - 20 feet	Sapling	
							Beech	Trace	5 - 10 feet	Sapling	
9	4119 - Mixed No	orthern Hard	dwoods P	oletimber	Mediun	n 38.8	80	81-110	N/A		Pole to log sized hardwood stand dominated by sugar maple. Stand is
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	putting on good growth and has a BA around 80.
	Sugar Maple	72	Pole/Log	8	80		Beech	High	5 - 10 feet	Sapling	
	Quaking Aspen	18	Log	10		Ir	onwood	Low	10 - 20 feet	Sapling	
	Basswood	5	Log	10		Su	gar Maple	Low	5 - 10 feet	Sapling	
	Red Maple	5	Sapling/Pole	e 1		Bla	ck Cherry	Medium	5 - 10 feet	Sapling	
10	4111 - S.Maple, H	lard Mast As	ssociation P	oletimber	Mediun	n 8.5	85	51-80	N/A		Decent quality hardwood stand dominated by sugar maple. Mostly split
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	stems with the subcanopy heavy to beech.
	Basswood	2	Log/Pole	10			Beech	Medium	5 - 10 feet	Sapling	
	Sugar Maple	58	Pole/Log	8	85	Bla	ck Cherry	Low	5 - 10 feet	Sapling	
	Quaking Aspen	20	Log	10		Su	gar Maple	Trace	5 - 10 feet	Sapling	
	Beech	20	Pole/Log	8		lr	onwood	Trace	5 - 10 feet	Sapling	
11	3102	- Grass		Nonsto	cked	1.0	2021				
12	710 - 8	Sand, Soil		Nonsto	cked	1.7			No		



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	ite	General Comments		
13	4130	- Aspen		Sapling	Well	15.4	27	Immature	N/A		Healthy young Aspen stand with a heavy understory of sugar maple. The		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	stand was harvested as a part of the sale Strawberry Aspen in 1995.		
	Beech	10	Sapling	1	27	Suç	gar Maple	High	5 - 10 feet	Sapling			
	Quaking Aspen	90	Sapling	3	27		Beech	Medium	5 - 10 feet	Sapling			
14	4112 - Maple, Beec	ch, Cherry A	Association	Poletimb	er Well	56.7	70	81-110	N/A		A mixed maple stand with lots of split stems. The East side of the stand has		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	rolling terrain.		
	Sugar Maple	42	Pole/Log	8	70		Beech	High	5 - 10 feet	Sapling			
	Beech	16	Pole/Log	8		Re	ed Maple	Medium	5 - 10 feet	Sapling			
	Ironwood	10	Sapling/Pole	e 1		In	onwood	Medium	>20 feet	Sapling			
	Red Maple	28	Pole	5		Bla	ck Cherry	Medium	5 - 10 feet	Sapling			
	Basswood	4	Pole/Saplino	g 6		Suç	gar Maple	Medium	5 - 10 feet	Sapling			
15	42110 - Plai	nted Red P	ine	Sawtimb	er Well	30.6	62	81-110	N/A		Good looking RP plantation that was thinned in 2019. There are some areas of lower quality with canopy mortality and split stems. The understory		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	is dominated by beech and red maple, with lower amounts of sugar maple,		
	Red Pine	100	Log/Pole	10	62		Beech	Medium	5 - 10 feet	Sapling	cherry, and oak.Old commemt: RP plantation was row-thinned in 1995		
						Suç	gar Maple	Medium	5 - 10 feet	Sapling	(#068-94), with the amount of damage to residual noted as being just within the contract's limits. Was free-thinned in 2019 (#629-14), with additional		
						Bla	ck Cherry	Trace	10 - 20 feet	Sapling	timber marked & tallied for operability during tsale admin due to a		
						Re	ed Maple	Low	5 - 10 feet	Sapling	combination of the tight row spacing and side-slopes. Dead trees were		
						Black/Re	d (Hybrid) Oa	k Trace	5 - 10 feet	Sapling	also painted during that re-marking so that they could be cut out of the way without concern by the processor. During the initial cutting along the east		
											side of the wellsite road off Caulker, the first four third-rows were opened up marginally, which involved a lot of marking without providing decent room. Then tried opening up every 6th row to at least 14' clearance. That worked better and was carried across the rest of the sale. The plantation had areas with poor initial stocking that needed little additional marking for operability. Some of that poor stocking was due to seedling establishment failure, and some due to canopy mortality. Did not note HRD conks in those mortality pockets.		
16	710 - S	Sand, Soil		Nonsto	cked	4.5					Well site.		
17	4112 - Maple, Beec	ch, Cherry A	Association	Poletimb		8.5	79	81-110	N/A		Hardwood stand dominated by sugar maple. There are some areas of lower quality with split stems. Aspen is fairly old with some pockets of		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	mortality.		
	Sugar Maple	54	Pole/Log	8	79	Re	ed Maple	Medium	5 - 10 feet	Sapling	,		
	Red Maple	20	Pole	5		Suç	gar Maple	Medium	5 - 10 feet	Sapling			
	Bigtooth Aspen	16	Pole/Log	8		Ir	onwood	Medium	5 - 10 feet	Sapling			
	Black Cherry	5	Pole	6			Beech	Medium	5 - 10 feet	Sapling			
	Beech	5	Pole/Log	8							-		

Grayling Mgt. Unit

Compartment: 245 Year of Entry: 2024 DNR MICHIGAN

Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments	
18	42110 - Plar	nted Red F	Pine F	Poletimb	er Well	8.7	46	111-140	N/A		Red pine plantation that is putting on decent growth. BA swings were	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	ranging from 120 to 140.	
	Red Pine	100	Pole	6	46		Beech	Low	5 - 10 feet	Sapling		
						Bla	ck Cherry	Low	5 - 10 feet	Sapling		
						Suç	gar Maple	Medium	5 - 10 feet	Sapling		
19	710 - S	and, Soil		Nonsto	cked	3.2					Well site.	
20	4130 -	- Aspen	F	Poletimb	er Well	57.7	37	81-110	N/A		Pole sized Aspen stand with a good component of red and sugar maple	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	the subcanopy.The stand was cut in 1985 as a part of the sale Block 353	
	Quaking Aspen	100			37	Ва	alsam Fir	Trace	5 - 10 feet	Sapling		
		-				Suç	gar Maple	High	10 - 20 feet	Sapling		
							Beech	Trace	5 - 10 feet	Sapling		
						Re	ed Maple	High	5 - 10 feet	Sapling		
						Bla	ck Cherry	Low	5 - 10 feet	Sapling		
						Ir	onwood	Medium	10 - 20 feet	Sapling		
21	3102 - Grass		3102 - Grass Nonstocked						No		Large open area with some scattered pine and cherry.	
						Sub-Ca	nopy Species	Density	Avg. Height	Size		
						Ар	ple (spp.)	Trace	5 - 10 feet	Tall Shrub		
						Ir	onwood	Trace	10 - 20 feet	Pole		
						Asp	pen (spp.)	Low	10 - 20 feet	Pole		
						C	Conifers	Low	10 - 20 feet	Sapling		
						Bla	ck Cherry	Low	10 - 20 feet	Sapling		
22	4116 - Mixed N. I	Hardwood	- Aspen F	Poletimb	er Well	319.9	83	81-110	N/A		Decent quality Hardwood stand that is pretty large but mostly consistent	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	composition. There are a few pockets of Aspen scattered throughout the stand. Sugar maple is dominant but there are a few areas that are heavi	
Blad	ck/Red (Hybrid) Oak	4	Log/Pole	10		Bla	ck Cherry	Low	5 - 10 feet	Sapling	to red maple.	
	Sugar Maple	40	Pole/Log/Sap	7	83		Beech	High	5 - 10 feet	Sapling		
	Red Maple	20	Pole/Log/Sap	6		Suç	gar Maple	Medium	5 - 10 feet	Sapling		
	Basswood	8	Pole/Log	8		Ва	asswood	Low	5 - 10 feet	Sapling	oling	
	Quaking Aspen	20	Pole	7		Yel	low Birch	Trace	5 - 10 feet	Sapling		
	Beech	8	Pole	5		Ir	onwood	Medium	10 - 20 feet	Sapling		
					'	Re	ed Maple	Medium	10 - 20 feet	Sapling		
23	3102	- Grass		Nonsto	cked	4.1					Well site.	

Compartment: 245 Year of Entry: 2024



											fear of Entry: 2024		
Stand	l Level 4 Co	over Type		Size De	ensity	Acres	Stand Age B	A Range	Managed S	ite	General Comments		
24	4110 - Sugar M	laple Assoc	ciation Sa	awtimbe	r Medium	n 34.1	86	1-50	N/A		Stand has nice log class sugar maple and some beech that was left from		
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	previous cut. There is high stocking of 15 to 20 foot sugar maple in the subcanopy. Beech is coming back at high stocking levels and is about 5 to		
	Sugar Maple	85	Log	12	86	I	Beech	High	5 - 10 feet	Sapling	10 feet high.		
	Beech	15	Log/Pole	11		Sug	gar Maple	High	10 - 20 feet	Sapling	Colo hamila stad unidan as interest # 700004404		
											Sale harvested under contract # 726281401		
25	4119 - Mixed No	rthern Hard	dwoods Po	oletimbe	r Medium	n 102.8	85	81-110	N/A		sugar\red maple stand with some large canopy oak. was thinned. not		
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	much regen except for beech.		
	Quaking Aspen	15	Pole/Log	8		Bla	ck Cherry	Medium	5 - 10 feet	Sapling			
	Basswood	18	Pole/Log	8		1	Beech	Medium	5 - 10 feet	Sapling			
Bla	ck/Red (Hybrid) Oak	4	Log/Pole	10		Iro	onwood	Medium	10 - 20 feet	Sapling			
	Beech	8	Pole/Log	8									
	Red Maple	15	Pole	6									
	Sugar Maple	40	Pole/Log	9	85								
26	4111 - S.Maple, Ha	ard Mast As	ssociation [Poletimb	er Well	38.5	100	81-110	N/A		Hardwood stand with the dominant sugar maple being around 100 years		
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	old. The subcanopy has high stocking of sugar maple that is around 20 feet		
	Beech	10	Pole/Log	8			ar Maple	High	>20 feet	Sapling	tall.		
	Paper Birch	10	Pole	6		Ì	Beech	High	5 - 10 feet	Sapling			
	Bigtooth Aspen	10	Pole	7		Blad	ck Cherry	Low	5 - 10 feet	Sapling			
	Sugar Maple	60	Pole/Log	8	100								
	Basswood	10	Pole/Log	8									
27	4116 - Mixed N. I	Hardwood	- Aspen - F	Poletimb	er Well	16.4	74	51-80	N/A		Large over mature Aspen in the canopy has a high mortality rate. There is		
	Canopy Species		Size Class		I Age		nopy Species	Density	Avg. Height	Size	also a large component of sugar maple and some red maple and beech in		
	Sugar Maple	32	Pole	5	. , .gc		Beech	High	5 - 10 feet	Sapling	the pole sized class. At this point there is little monetary value left in the Aspen, so the stand should probably be left to allow the maple to release a		
	Paper Birch	2	Pole	5			ck Cherry	Low	5 - 10 feet	Sapling	the Aspen dies out.		
	Bigtooth Aspen	35	Log/Pole	10	74		onwood	Low	10 - 20 feet	Sapling	·		
	Red Maple	15	Pole	7				2011	.0 20.000	99			
	Beech	8	Pole	7									
	Basswood	6	Pole/Log	8									
	Red Oak	2	Log/Pole	10									
28	4130 -	- Aspen	-	Sapling	ı Well	136.7	37	1-50	N/A		Young aspen stand with a decent white pine component that is mainly focused in denser pockets . There are also some legacy white pine		
	Canopy Species	% Cover	Size Class		l Age		nopy Species	Density	Avg. Height	Size			
	Bigtooth Aspen	70	Sapling/Pole		37		hite Pine	Medium	5 - 10 feet	Sapling	scattered throughout the stand.		
	White Pine	15	Pole/Log	8			ck Cherry	Medium	5 - 10 feet	Sapling	Most of the stand was cut in 1984 as a part of the Block 355 sale. The NE		
	Red Maple	8	Sapling/Pole			Dia	σ,				corner was cut in 1994 as a part of the sale Section One Block.		
	:		2 Sp 19/1 010										

Sapling/Pole

Red Oak



Stand	tand Level 4 Cover Type		;	Size Dens	sity Acres	Stand Age	BA Range	Managed Site	General Comments		
29	4130 - Aspen			Sapling W	/ell 50.7	18	Immature	N/A	Nice young Aspen stand with a small component of red maple.		
	Red Oak Bigtooth Aspen Red Maple	% Cover 5 75 20	Size Class Sapling Sapling Sapling	1 2 1	.ge 18				Stand was cut in 2004 as a part of the sale Calker Road Aspen Oak.		
30	3102 - Grass			Nonstock	ed 2.5			No	Open grassy area that is a military firing point for the air to ground range.		
31			Size Class	Sapling W		38	1-50	N/A	Nice young Aspen stand that is approaching the pole class, but is primarily sapling sized.		
Bla	Bigtooth Aspen ck/Red (Hybrid) Oak Black Cherry White Pine Red Maple	70 8 2 4 16	Sapling/Pole Sapling Sapling Pole/Sapling Sapling/Pole	4 1	38				Stand was cut in 1984 as a part of the Block 356 sale.		
32	32 500 - Water Nonstocked			ed 30.9			No	Section one lake.			
33				Sapling W		30	Immature	N/A	Young Aspen stand with good regen. Some log sized Aspen and pine trees were left during the last harvest.		
	Canopy Species	% Cover	Size Class	DBH A	_				·		
	Bigtooth Aspen White Pine	85	Sapling Pole	5	30						
	Red Maple	5 10	Sapling	3							
34				/ell 166.4	15	Immature	N/A	Young aspen stand with a decent pine component that is scattered			
-	Canopy Species	% Cover Size Class		DBH Age					throughout the stand. There are also heavier areas of pine focused aroun		
	Bigtooth Aspen	50	Sapling		15				section one and marsh lakes. There is also a good amount of log sized pine and oak that were left during the last harvest, with most of this focused		
	Red Pine	10	Pole/Sapling	5					around the lakes. Stand was cut in 2007 as a part of the sale Section		
	White Pine	15	Sapling/Pole	1					One Aspen.		
Bla	ck/Red (Hybrid) Oak	6	Pole/Sapling	6							
	Black Cherry	4	Sapling	1							
	Red Maple	15	Sapling	1							
35						65	1-50	N/A	mixed pine and spruce stand around a small lake with open areas of shrubs and smaller trees closer to the edge of the lake.		
	Canopy Species		Size Class	DBH A	_				-		
	Red Pine Jack Pine	60	Log/Pole Pole	10	35						
	Black Spruce	5 15	Pole/Sapling	5							
	White Pine	20	Pole/Sapiling		30						
	AAIIIIG EIIIG	20	FUIE	U	50						

Report 7 - Stands



Stand	Level 4 Cover Type			Size Density	Acres	Stand Age E	BA Range	Managed Si	ite	General Comments		
36	500 - Water			Nonstocked	7.7			No		Marsh Lake		
37	500 - Water			Nonstocked	1.0		Immature	No		Guthrie lake		
38	122 - Road/Parking Lot			Nonstocked	3.6			No		Public Access site for Guthrie lake. Has some red pine on it.		
39	622 - Lowl)	Nonstocked	2.9	Immature		No		lowland shrub stand with a mix of small conifers and deciduous trees scattered throughout it.			
40	3205 - Mixed Upland Shrub			Nonstocked	158.2			No		military air to ground range.		
41	4124 - Red with White Oak Sa			Sawtimber Mediu	m 25.2	85 51-80		N/A		85 year old oak stand that is on the smaller end of the log size class with a		
	Canopy Species	-				nopy Species		Avg. Height	Size	decent amount in the pole sized class Understory mainly consists of red maple and white pine.		
	White Oak Red Oak	30 70	Log/Pole Log/Pole	10 85 10 85		hite Pine ed Maple	Medium High	5 - 10 feet 5 - 10 feet	Sapling Sapling	Oak stand was thinned in 2006.		
42	3102 -	Grass		Nonstocked	0.9							
43	6225 - Bog		Nonstocked	1.8		Immature	No		Bog inside of military range fence.			
44	6225 - Bog		Nonstocked	1.1			No		Bog within the military range fence.			
45	6225 - Bog		Nonstocked	13.7			No		bog within the military range fence.			
46	3102 - Grass		Nonstocked	0.8			No		Open grassland.			
47	42101 - Planted V Decid	White Pine duous	, Mixed	Poletimber Well	I 13.6	90	111-140	N/A		Appears to be an old white pine plantation, with rows still evident here and there. However, the stand is starting to develop more of a natural look in		
	Canopy Species	% Cover	Size Class			nopy Species	Density	Avg. Height	Size	areas due to a lack of management. The stand is mostly pole sized, but there are quite a few super canopy legacy white pine in the stand. There is		
Bla	ck/Red (Hybrid) Oak					hite Pine	High	10 - 20 feet		a good amount of white pine regen around 20 feet and a mix of beech and		
	Quaking Aspen 10 Pole		6		Beech Mediu		5 - 10 feet Sapling		hybrid oak at 5 to 10 feet.			
	Red Pine	10	Pole/Log	8	Black/Re	ed (Hybrid) Oak	Medium	5 - 10 feet	Sapling			
49	9 3102 - Grass Nonsto				2.5	2021		No		Managed oil/gas site that is mostly grass with a few pockets of Aspen.		

Grayling Mgt. Unit

Report 7 - Stands



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age BA Range	Managed Site	General Comments	MICHIGAN .
50	3102 - Grass	Nonstocked	1.7	2021			
51	3102 - Grass	Nonstocked	1.4	2021			