

Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72288

Entry Year 2021

Acreage: 1,383

County Crawford

Management Area: AuSable Outwash

Revision Date: 2019-08-22

Stand Examiner: Derek Nellis

Legal Description:

Lovell's Township T28N, R01W, Sections 34, 35, and 36

Identified Planning Goals:

To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management.

Soil and topography:

Topography is flat with rolling hills. Soil types consist primarily of Grayling and Graycalm sands; these soils are somewhat excessively to excessively drained.

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

This compartment is found within a large block of public ownership. The majority of private parcels in this township are found along the river corridors.

Unique Natural Features:

There is potential for dry prairie plants in grassy openings: Hill's thistle, rough fescue, Alleghany plum, and Pale Agoseris. There is potential for several animals of concern in this compartment: Kirtland's warbler, prairie warbler, bald eagle, wood turtle, Massasauga rattle snake, secretive locust, dusted skipper, grizzled skipper, and the red-legged spittle bug.

Archeological, Historical, and Cultural Features:

None known at this time.

Special Management Designations or Considerations:

The West Branch of Big Creek and the Middle Branch of Big Creek are designated "Natural Rivers". Natural Rivers are High Value Conservation Areas (HCVA).

Watershed and Fisheries Considerations:

This compartment is in the Au Sable River watershed and lies between West Branch Big Creek and Middle Branch Big Creek/Big Creek Impoundment. The proposed management activities are appropriate for the protection of these waterbodies.

Wildlife Habitat Considerations:

Try to expand the aspen component where possible. During timber harvesting make efforts to improve snag habitat and down woody debris. Also, try to leave some high stumps for feeding perches and drumming.

Mineral Resource and Development Concerns and/or Restrictions

Active sand/gravel pits are located four miles to the northwest and southwest, and there is good potential for sand & gravel within the compartment. There has been no oil & gas production, past or present, within more than two miles of the compartment. There is no history of mineral leasing within the compartment, but there are some active oil & gas leases two miles to the north associated with the Antrim Shale gas play. There does not appear to be any Antrim potential within the compartment, and there is no known potential for other known producing formations. There is no known metallic mineral potential in this part of the state.

Vehicle Access:

Access through out the compartment is excellent by way of the county roads of Walsh and Townline Roads along with several forest roads.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

A portion of the Walsh Road Trail Camp can be found in section 36. Part of the Roll snowmobile trail #409 is located in section 34. The Shore to Shore Riding & Hlking trail is found in sections 35 and 36. Dispersed recreation occurs throughout the area.

Fire Protection:

The current road system is adequate and timber conversion is not needed. The rivers, roads, and utility lines provide adequate fuel breaks.

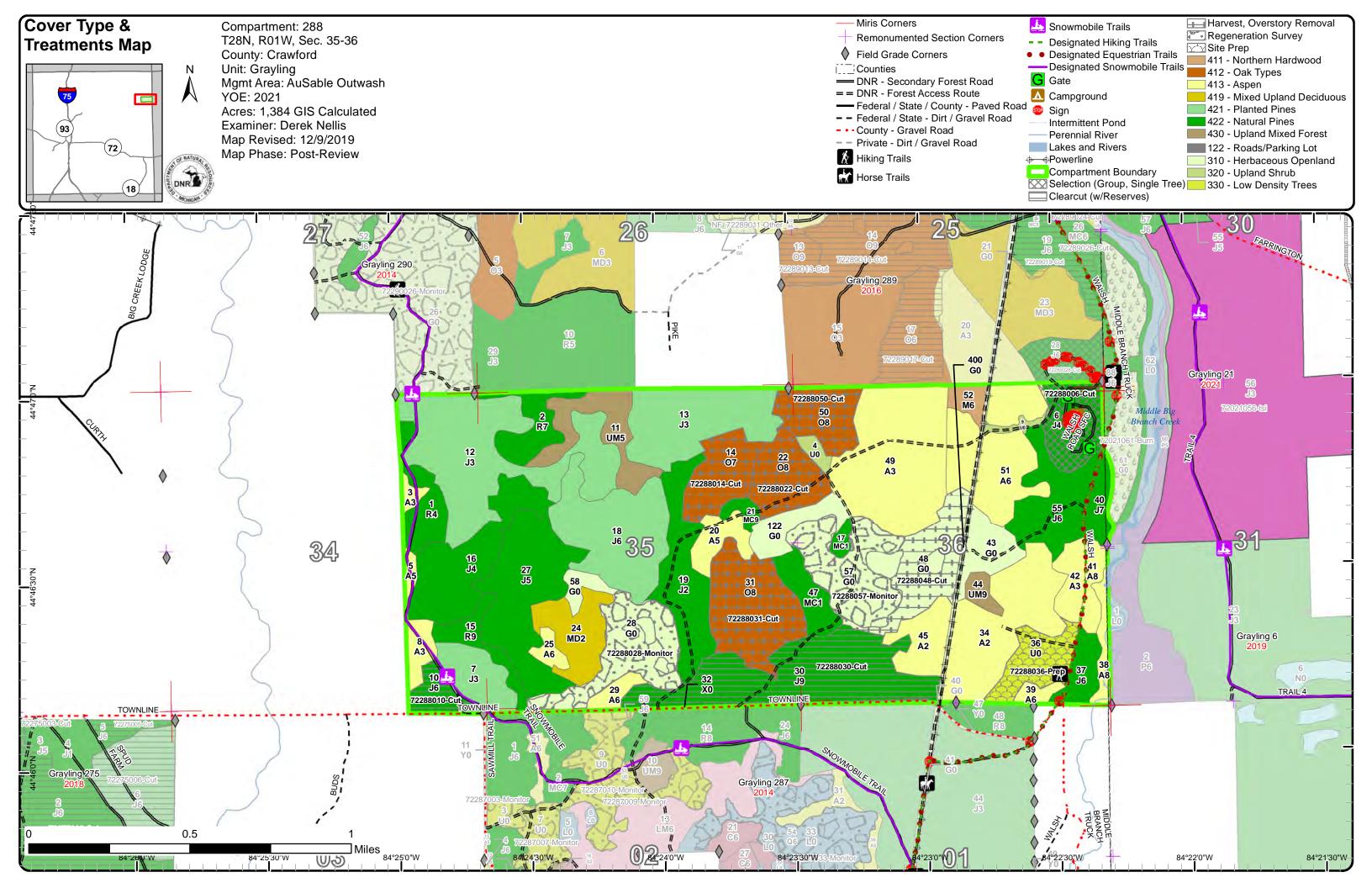
Additional Compartment Information:

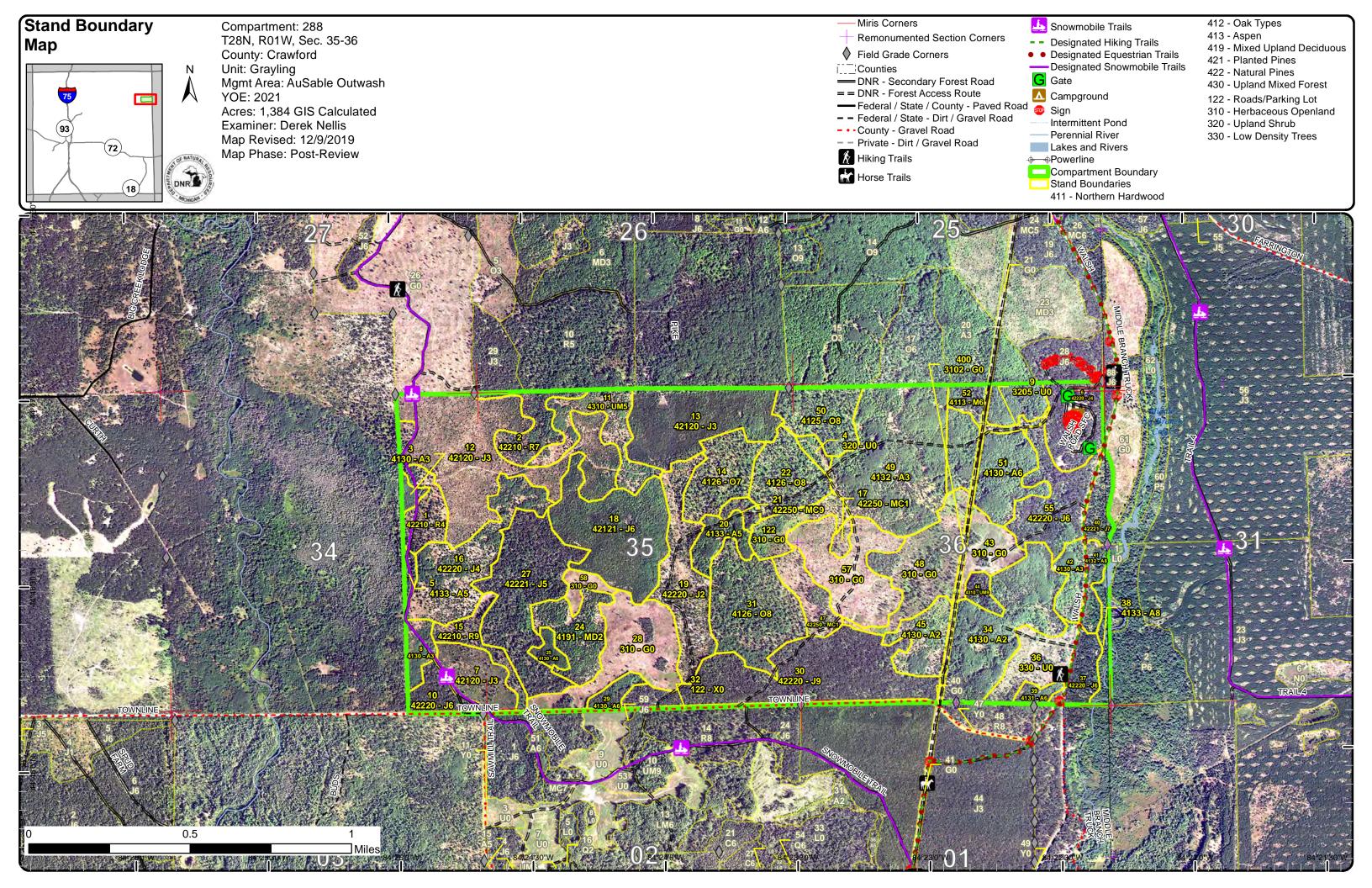
The following reports from the Inventory are attached:

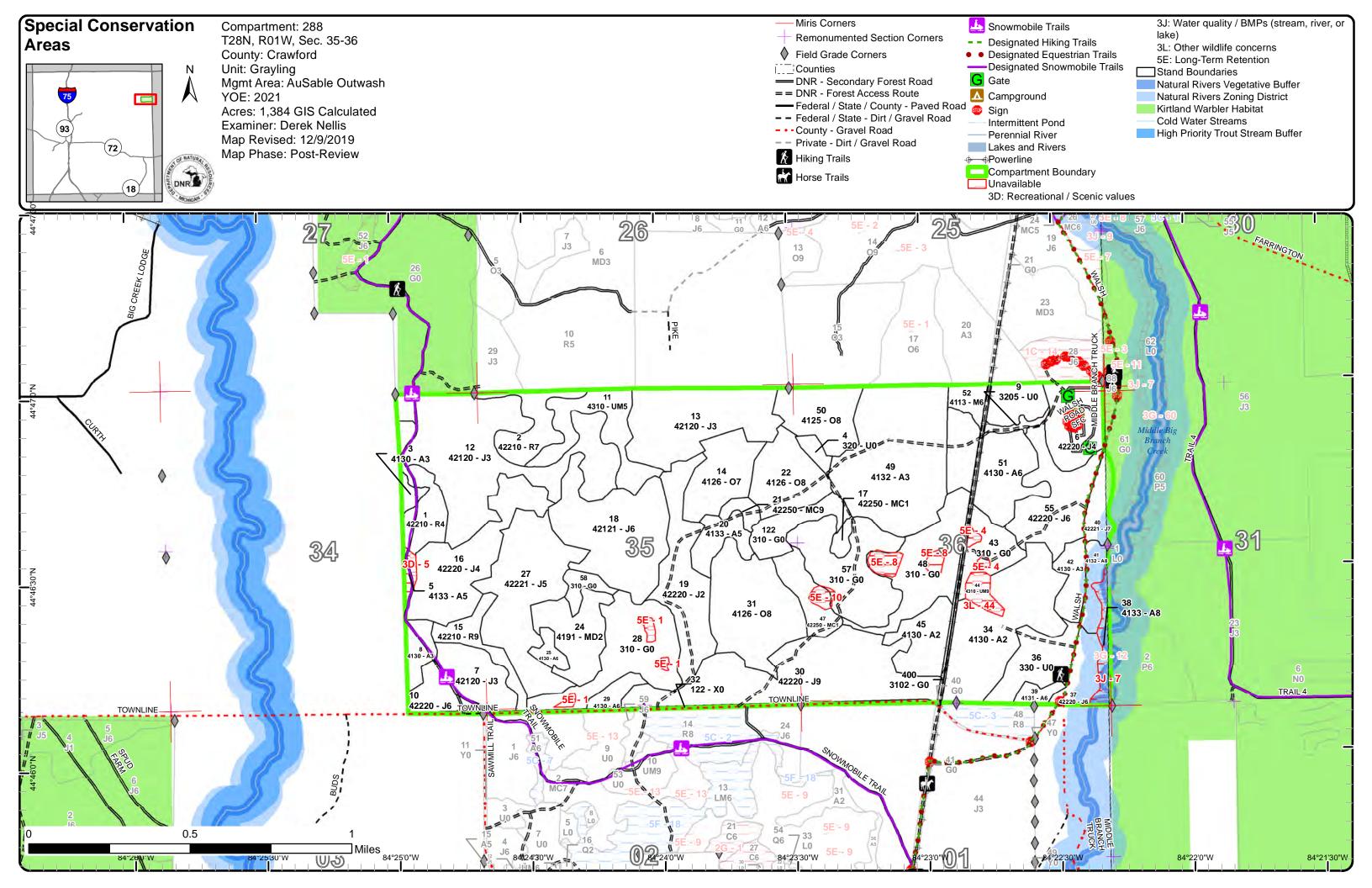
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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

Derek Nellis: Examiner

Compartment 288 Year of Entry 2021



Age Class

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Aspen	0	0	46	67	103	67	0	19	0	0	0	0	0	0	0	0	0	0	302
Herbaceous Openland	181	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	181
Jack Pine	0	0	162	105	63	37	77	127	11	0	0	0	0	0	0	0	0	0	580
Low-Density Trees	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Mixed Upland Deciduous	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Natural Mixed Pines	0	0	20	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	25
Northern Hardwood	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
Oak	0	0	0	0	0	0	0	0	0	0	52	84	0	0	0	0	0	0	136
Red Pine	0	0	0	0	0	0	0	39	0	0	0	0	0	0	0	0	14	0	53
Upland Mixed Forest	0	0	0	0	0	6	0	29	0	0	0	0	0	0	0	0	0	0	35
Upland Shrub	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Urban	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	219	0	228	199	166	117	77	219	11	0	52	84	0	0	0	0	14	0	1384



Report 2 – Treatment Summary

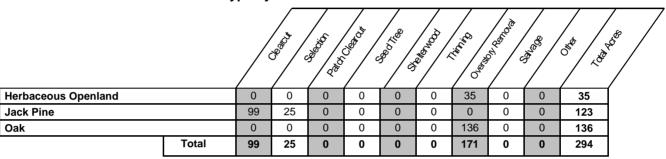
Grayling Mgt. Unit Year of Entry: 2021

Acres of Harvest

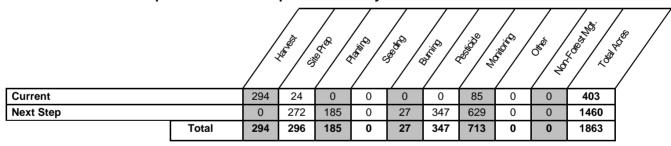
Compartment 288
Total Compartment Acres: 1,383

Commercial Harvest - 294 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



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d



Compartment: 288

Year of Entry: 2021 **Treatment** BA **Treatment Treatment** Cover Type Acres Stand Size Stand Age Habitat Name CoverType Density Age Range Type Method Objective Structure Cut

Approved Treatments:

72288006-Cut 24.9 42220 - Natural Poletimber 62 1-50 Harvest **Group Selection** 4222 - Natural Uneven-No Jack Pine Poor Jack Pine Aged

Prescription Remove all Jack Pine 6 inches and up dbh. Be careful to protect remaining jack pine.

Specs:

Require low impact and easily maneuverable equipment in contract for sale to minimize impact to campground.

Remove all aspen.

Exclude any areas that are mostly small diameter jack pine from sale.

Cut all stumps extremely low.

Cut all standing dead.

Sale must be chipped.

Protect ORV trail.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable jack pine

Regen:

Other Winter cut only, hand plant RP underneath throughout the stand.

Comment:

Site Condition

Proposed Start Date: 10/1 /2015

72288010-Cut 42220 - Natural Poletimber 12.3 60 81-110 Harvest Clearcut with 4222 - Natural Even-Aged No Jack Pine Well Retention Jack Pine

Prescription Harvest all trees >2". Slash is to remain on site. Add trail specs for rec trail

Specs:

Monitoring, Natural Regen (Re-Inventory); Pesticide, Skidder - Release; Pesticide, Skidder - Site Prep; SitePrep, Trenching; Planting, Next Step

Interplant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Treatments:

60% of stand stocked with 600+ jack pine/acre. Acceptable

Alternative to natural jack pine is prep and plant areas of failed natural regeneration to red pine at a density for a fully stocked stand Regen:

Other Based on core samples the jack pine has stagnated. Broken tops and some mortality was observed.

Comment:

Site Condition

Proposed Start Date: 10/1 /2020

72288014-Cut 27.7 4126 - White. Sawtimber 103 1-50 Harvest Overstory 412 - Oak Types Even-Aged No

Black, N. Pin Oak Removal Poor

Prescription Harvest all trees >5". Retain all conifer. Protect advanced oak regeneration. Focus retention on areas with higher densities of white oak and

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable 60% oak or more with any combination of aspen, red maple, and conifer to be fully stocked.

Regen:

<u>Other</u> Quality patches of white oak regeneration throughout. Some overstory red pine in the SW with a trace amount of red pine regeneration.

Comment:

Site Condition

Proposed Start Date: 10/1 /2020

Compartment: 288

Year of Entry: 2021

n d	Name	Acres	CoverType	Density	Age	Range	Type	Method	Objective	Age Structure	Cut
22	72288022-Cut	28.7	4126 - White,	Sawtimbe		1-50	Harvest	Overstory Removal	412 - Oak Types	Even-Aged	No

Prescription Harvest all trees >5". Retain all conifer. Protect advanced oak regeneration. Focus retention on areas with higher densities of white oak and Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable 60% oak or more with any combination of aspen, red maple, and conifer to be fully stocked.

Regen:

t

Other The majority of this stand has quality white oak regeneration over 5'tall. Most red/black/pin oak is less than 5' and more sparsely dispersed. There is one large white pine centrally located in the stand that is starting to produce a trace of white pine regeneration, two rut forest road Comment: on south end has some equestrian use.

Site Condition

Proposed Start Date: 10/1 /2020

72288028-39.7 310 - Herbaceous Nonstocked 0 Unspec Monitoring Artificial 42110 - Planted Even-Aged No Red Pine Monitor Openland ified Regen(3yr)

Prescription Yr 3 artificial regen check.

Specs:

; Pesticide, (Inactive)Aerial; SitePrep, Roller Chopping Next Step

Treatments:

Acceptable Full stocking in planted RP

Regen:

<u>Other</u> Percent to Treat = 100%

Comment: Site Condition

Proposed Start Date: 10/1 /2020

72288030-Cut 42220 - Natural Sawtimber 60 81-110 Clearcut with 4222 - Natural 86.2 Harvest Even-Aged Nο Jack Pine Well Retention Jack Pine

Prescription Harvest all trees >2". Slash is to remain on site.

Specs:

Monitoring, Natural Regen (Re-Inventory); Pesticide, Skidder - Release; Pesticide, Skidder - Site Prep; SitePrep, Trenching; Planting, Next Step

Treatments: Interplant; ; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

<u>Acceptable</u> 60% of stand stocked with 600+ jack pine/acre.

Alternative to natural jack pine is prep and plant areas of failed natural regeneration to red pine at a density for a fully stocked stand Regen:

Based on core samples the jack pine has stagnated. Broken tops and some mortality was observed. Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2020

72288031-Cut 52.3 4126 - White, Sawtimber 1-50 412 - Oak Types Even-Aged Nο Harvest Overstory Black, N. Pin Oak Medium Removal

Prescription Harvest all trees > 5". Protect advanced oak regeneration. Retain all conifer. Focus retention areas around white oak, aspen clone, and Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable 60% oak or more with any combination of aspen, red maple, and conifer to be fully stocked.

Regen:

Other Quality white oak regeneration in patches throughout the stand. A health sapling sized aspen clone is located in the NW.

Comment:

Site Condition

Proposed Start Date: 10/1 /2020

Proposed Start Date: 10/1 /2020

Percent to Treat = 100%

Other

Comment:
Site Condition

S t		Grayling	Mgt. Unit		Repoi	rt 3	Treatments		Compartme Year of Ent	n# 2024	OF NATURAL AND SOURCES
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut

Total Treatment Acreage Proposed: 403.1

Compartment: 288

Grayling Mgt. Unit

Derek Nellis : Examiner Year of Entry: 2021

Availa	bility for	Managemer	nt					
Total	Acres	Acres Avail	Acres		Domina	nt Site	Cond	ditions
Acres	Available	With Condition	Not Available		3D	3J	3L	5E
301	288	0	13	Aspen	4	9	0	
182	170	0	12	Herbaceous Openland			0	12
581	581	0	0	Jack Pine		0		
24	24	0	0	Low-Density Trees				
27	27	0	0	Mixed Upland Deciduous				
24	22	0	2	Natural Mixed Pines				2
7	7	0	0	Northern Hardwood				
136	136	0	0	Oak				
53	53	0	0	Red Pine				
34	29	0	6	Upland Mixed Forest			6	
7	7	0	0	Upland Shrub				
7	7	0	0	Urban				
1,384	1,351		33	Total Forested Acres	4	10	6	14
	98%		2%	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.

		Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
navailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
nents:						
navailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
nents:						
navailable	3D: Recreational / Scenic values	4	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
nents:						
r	navailable nents:	navailable 5E: Long-Term Retention nents: navailable 3D: Recreational / Scenic values	navailable 5E: Long-Term Retention 2 nents: navailable 3D: Recreational / Scenic 4 values	navailable 5E: Long-Term Retention 2 Unspecified nents: navailable 3D: Recreational / Scenic values 4 4A: No Markets Available for these Forest Products	navailable 5E: Long-Term Retention 2 Unspecified Unspecified nents: navailable 3D: Recreational / Scenic values 4 4A: No Markets Available for these Forest Products	navailable 5E: Long-Term Retention 2 Unspecified Unspecified Unspecified nents: navailable 3D: Recreational / Scenic values 4

Report 4 – Site Conditions

Compartment: 288

Grayling Mgt. Unit

Derek Nellis : Examiner Year of Entry: 2021

7	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Riparian transition	along Big Creek.					
8	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
10	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
44	Unavailable	3L: Other wildlife concerns	6	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
(Comments:						

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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: 288





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.

Conservation Area	туре	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 condi- 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
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and coop U.S. Fish and Wildlife service for the recovery of threatened and 365, Endangered Species Protection, of the Natural Resources a PA 451, and the Federal Endangered Species Act of 1973. This is species plans in various stages of review. As of now only two ex Plover Habitat.	endangered species, as governed by Part and Environmental Protection Act, 1994 is an active program, with proposed
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spansor 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 locate folder.	Zoning District is a 400 foot buffer for 00 feet. To view specific Zoning Districts

DNR DNR

Stand	d Level 4 Co	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments		
1	42210 - Nat	ural Red Pi	ne	Poletimb		r 19.4	60	1-50	N/A		Moderately stocked red pine overstory with sapling jack pine, white pine, and oak. Patches of poor stocking dominated by sedges and blueberry.		
	Canopy Species	% Cover	Size Class		l Age		opy Species		Avg. Height	Size	OPIC - FMD: Stand harvested during the winter of 2004. Red pine w		
	Red Pine	80	Pole/Log	9			wbush Bluebe	rry High	< 5 feet	Tall Shrub	left. Majority of these trees were suppressed. A couple white pine		
	Jack Pine	10	Sapling	2	15	Mixes Sed	dges/Grasses	High	Unspecified	Non-Wood	present as well. Some unmerch found through out. Most of this stand was not under planted. Check regen in 10, if poor - May want to under		
											plant or remove red pine and then plant. Snowmobile trail runs through stand.		
2	42210 - Nat	ural Red Pi	ne	Sawtimb	er Poor	19.2	66	1-50	N/A		Patchy red pine mixed with aspen clones and oak stump sprouts. Heavier		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	opy Species	Density	Avg. Height	Size	to jack pine on the north end.		
	Red Pine	90	Pole/Log	9	66	Brac	ken Fern	Medium	Unspecified	Non-Wood			
	Jack Pine	10	Pole	6		Common Lov	wbush Bluebe	rry Medium	< 5 feet	Tall Shrub			
				'	'	Win	tergreen	Medium	< 5 feet	Tall Shrub			
						Quaki	ng Aspen	Medium	10 - 20 feet	Sapling			
						Oal	(spp.)	Medium	5 - 10 feet	Sapling			
3	4130 -	- Aspen		Sapling	g Well	3.5	14 I	mmature	N/A		Dense nearly pure aspen clone bisected by snowmobile/atv route and a two rut trail on the east side. Ephemeral pond located in stand 1 borders		
	Canopy Species	% Cover	Size Class	DBF	I Age	Sub-Can	opy Species	Density	Avg. Height	Size	on NE. Some scattered pine east of snowmobile/atv route. OPIC - FMD:		
	Quaking Aspen	90	Sapling/Po	le 4	14	Brac	ken Fern	High	Unspecified	Non-Wood	Stand harvested during the winter of 2004. (Portions of stand planted to		
						Mixes Sec	dges/Grasses	High	Unspecified	Non-Wood	jack pine in may of 2006 under FTP C72-530.) Some cherry brush, red maple, and bigger red pine present. A couple low/wet areas.		
4	320 - Upl	and Shrub		Nonsto	ocked	4.1		mmature	No		Includes some low density pine and oak on the perimeter with sedges, sweet fern and blueberry through the center. Horse trail runs across the		
						Sub-Can	opy Species	Density	Avg. Height	Size	south southern corner. OPIC - FMD: Area has historically been used as a		
							et Fern	Medium	< 5 feet	Tall Shrub	landing site for the surrounding stands. Burn with stands 47, 48, 122.		
						Common Lov	wbush Bluebe	rry High	< 5 feet	Tall Shrub			
						Se	edges	Medium	Unspecified	Non-Wood			
						Black/Red	l (Hybrid) Oak		5 - 10 feet	Sapling			
						Jac	k Pine	Medium	5 - 10 feet	Sapling			
						Re	d Pine	Trace	5 - 10 feet	Sapling			
5	4133 - Aspe			oletimbe		m 3.5	37	1-50	N/A		Mixed stand transitioning from upland (east) to lowland (west). OPIC - TFMD: Used stand 1 for origin and SI. Stand is just on the edge of a		
	Canopy Species	% Cover	Size Class	DBF	I Age	Sub-Car	opy Species	Density	Avg. Height	Size	conifer swamp. Pockets of blow down present. Eastern edge is higher		
	Quaking Aspen	50	Pole	8	37	Mixes Sed	dges/Grasses	High	Unspecified	Non-Wood	ground and has an oak/pine component. Fir, black spruce, red maple,		
	White Pine	10	Log	12							oak, wp, jp, cedar, and rp present. Stand is small, long and narrow- borders pvt and the snowmobile trail. Let it convert to a Q-type. Old		
	Red Maple	10	Log	12							comments		
	Red Pine	10	Log	14	68								
	Jack Pine	10	Pole/Log	8									
Bla	ck/Red (Hybrid) Oak	8	Log	15									



Stand	d Level 4 Co	over Type		Size Density	Acres	Stand Age B	BA Range	Managed 9	Site	General Comments
6	42220 - Natu Canopy Species Jack Pine Red Pine		Size Class Pole/Log Log	Poletimber Poor DBH Age 8 62 12 52	28.2	62	1-50	N/A		Some jack pine mortality typical of 60+ y/o. Red pine present are beginning to over top jack pine and are maintaining vigor. OPIC - FMD: Walsh Road Trail Camp. Remove hazard trees as necessary. In the event of scattered extra seedlings-consider stand for hand planting. A few areas throughout camp ground are fully stocked.
7	42120 - Plan Canopy Species Jack Pine Red Pine		Pine Size Class Sapling Log	Sapling Well DBH Age 2 13 16	22.0	13	Immature	N/A		Contiguous and well stocked. Snowmobile/atv route along west/southwest boundary. OPIC - FMD: planted to 2-0 jack pine in 2006. Scattered overstory pine, less than 10BA.
8	4130 - Canopy Species Quaking Aspen	- Aspen % Cover 96	Size Class Sapling	Sapling Well DBH Age 3 14	9.8	14	Immature	N/A		Stand is bisected by snowmobile/atv route. Lower stocking on north end. Heavier to oak and pine NE of snowmobile/atv route. OPIC - FMD: Final harvested spring 2005. QA w/ cherry brush, stump sprout oak, and misc pine. Pockets of U-type through out.
9	3205 - Mixed	Upland Sh	nrub	Nonstocked	3.0	48	Immature	No		Horse trail runs through the center of the stand. OPIC - FMD: Scattered
					Sub-Ca	nopy Species	Density	Avg. Height	Size	jack, pine cherry, and other misc species. Stand is a small valley between S53 and S56. SI estimated.
					Blac	ck Cherry	Medium	10 - 20 feet	Sapling	
					Black/Red	d (Hybrid) Oak	Low	>20 feet	Sapling	
					Ja	ck Pine	Low	10 - 20 feet	Sapling	
					Quak	ing Aspen	Trace	>20 feet	Sapling	
					Re	ed Pine	Trace	10 - 20 feet	Sapling	
10	42220 - Natu	ural Jack P	ine	Poletimber Well	12.3	60	81-110	N/A		Minimal growth in past ten years based on core sample. Borderline log
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Car	nopy Species	Density	Avg. Height	Size	size jack pine with scattered large multistem oak. Some jack pine mortality. Snowmobile/atv route along eastern boundary with a short
	Jack Pine	97	Pole	9 60	Wh	nite Pine	Trace	5 - 10 feet	Sapling	section of trail across the eastern corner FMD: Oak also present in
					Blac	ck Cherry	Medium	Variable	Sapling	stand. Stand in good shape. Smaller stuff along Townline Rd. Stand
					Re	ed Pine	Trace	10 - 20 feet	Sapling	has been left for visual.
					Ва	Isam Fir	Trace	5 - 10 feet	Sapling	
11	4310 - Pir	ne, Oak Mix	x Po	oletimber Mediun	n 28.6	66	1-50	N/A		Some aspen clones present. Areas of low stocking dominated by sedges,
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Car	nopy Species	Density	Avg. Height	Size	sweet fern, and blueberry.
	Red Pine	50	Pole/Log	9 66	Brac	ken Fern	Medium	Unspecified	Non-Wood	
Blac	ck/Red (Hybrid) Oak	50	Sapling	3	ommon Lo	wbush Bluebe	rry Medium	< 5 feet	Tall Shrub	
					Win	ntergreen	Medium	< 5 feet	Tall Shrub	
					Quak	ing Aspen	Medium	10 - 20 feet	Sapling	
12	42120 - Plan	ited Jack P	ine	Sapling Well	96.5	15	Immature	N/A		Well stocked contiguous jack pine.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Car	nopy Species	Density	Avg. Height	Size	Planted to Jack Pine in 2004, area is scattered with oak sprouts with
	Jack Pine	95	Sapling	1 15	S	Sedges	Full	Unspecified	Non-Wood	
									1	planted around.



Canopy Species	Stan	d Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed	Site	General Comments
Canopy Species % Cover Size Class	13	Canopy Species	% Cover	Size Class	DBH	Age	55.7	28	Immature	N/A		Various species mixed in the plantation. Look like some older sticks of jp
Standy Species Scholar Substance S	14	4126 - White, B	Black, N. Pi	in Oak S								
Black/Red (Hybrid) Oak Medium -5 feet Sapling Vintergree High -5 feet Tail Shrub Sweet Fern Medium -20 feet Sapling Vintergree High -5 feet Tail Shrub Sweet Fern Medium Unspecified Vintergree High -5 feet Tail Shrub Sweet Fern Medium Unspecified Vintergree Vint			% Cover	Size Class						Avg. Height		regen still < 5'. Stand is moderately stocked with oak regen. OPIC - FMD:
White Oak Low 5 - 10 feet Sapling Wintergreen High 4 of feet Tail Shrub Sweet Farm Medium - 4 of feet Tail Shrub Sweet Farm Medium - 4 of feet Tail Shrub Bracken Fern Medium - 4 of feet Tail Shrub Bracken Fern Medium - 4 of feet Tail Shrub Bracken Fern Medium - 4 of feet Tail Shrub Bracken Fern Medium - 5 feet Tail Shrub Bracken Fern Medium - 5 feet Tail Shrub Bracken Fern Medium - 5 feet Sapling Tail Shrub Bracken Fern Medium - 5 feet Sapling Tail Shrub Bracken Fern Medium - 5 feet Sapling Tail Shrub Bracken Fern Medium - 5 feet Sapling Tail Shrub Bracken Fern Medium - 5 feet Sapling Tail Shrub Bracken Fern Medium - 5 feet Sapling Tail Shrub Bracken Fern Medium - 5 feet Sapling Tail Shrub Bracken Fern Bracken Fern Medium - 5 feet Sapling Tail Shrub Bracken Fern Bracken Fright Harvest With reserves. Leave red pine and a couple lained Standen Standen Bracken Fern B	Bla											Stand was shelterwood/seed tree harvested with oak remaining at a BA
Wille Valle Valley As 5 for the Sapling Wille Valley As 5 for the Tall Shrub Sweet Fern Medium Sweet Fern Medium Unspecified Non-Wood Non-Wood Valley Non-Wood		White Oak	35	Log	14	103			ak Medium			
Sweet Fern Medium C 5 feet Tall Strub Bracken Fern Medium Subspecified Non-Wood Qualking Aspen Medium Subspeci							WI	nite Oak	Low	5 - 10 feet	Sapling	Tou maple regent. A low pine mining in understory.
Bracken Fern Medium Unspecified Non-Wood							Wir	ntergreen	High	< 5 feet	Tall Shrub	
Quaking Aspen Medium >20 feet Sapting							Sw	eet Fern	Medium	< 5 feet	Tall Shrub	
15 42210 - Natural Red Pine Sawtimber Well 14.3 150 1-50 N/A Canopy Species % Cover Size Class DBH Age Red Pine 80 XLog/Log/Pole 20 150 Jack Pine 20 Pole 6 Black/Red (Hybrid) Oak Low 10 - 20 feet Sapling Size Black (Red (Hybrid) Oak Low 10 - 20 feet Sapling) 16 42220 - Natural Jack Pine Poletimber Poor Canopy Species % Cover Size Class DBH Age Jack Pine 80 Polet/Sapling 5 Black Cherry 10 Sapling 3 Jack Pine 80 Polet/Sapling 5 Black Cherry 10 Sapling 3 Jack Pine Add Sapling 10 S							Brad	cken Fern	Medium	Unspecified	Non-Wood	
Canopy Species							Quak	king Aspen	Medium	>20 feet	Sapling	
Red Prine 80 XLog/Log/Pole 20 150 Black/Red (Hybrid) Oak Low 10 - 20 feet Sapling 16 42220 - Natural Jack Pine Poletimber Poor Canopy Species 6 W Cover Size Class DBH Age Jack Pine 10 Pole/Sapling 5 28 Red Maple 110 Pole/Sapling 5 28 Black Cherry 110 Sapling 3 3 17 42250 - Pine, Oak Sapling Poor Jack Pine 20 Log 12 Sapling 10	15	42210 - Nat	ural Red P	ine S			14.3	150	1-50	N/A		
16 42220 - Natural Jack Pine 20 Pole 6		Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	es Density	Avg. Height		
16 42220 - Natural Jack Pine Poletimber Poor 49.1 28 1-50 N/A Mixed jack pine and red maple with stunted cherry scattered throughout More open areas dominated by sedges and sweet fern. OPIC - FMD: / good mixture of species. Poor stocking in portions. USED OLD SI. Red Maple 10 Pole/Sapling 5 28 Red Maple 10 Pole/Sapling 5 3 Black Cherry 10 Sapling 3 3 17 42250 - Pine, Oak Sapling 3 3 18 A2250 - Pine, Oak Sapling 1 1 0 Sapling 1 1		Red Pine	80	XLog/Log/Pol	e 20	150	Black/Re	d (Hybrid) O	ak Low	10 - 20 feet	Sapling	
Canopy Species % Cover Size Class DBH Age Jack Pine 80 Pole/Sapling 5 28 Red Maple 10 Pole/Sapling 5 5 28 Black Cherry 10 Sapling 5 5 28 The Canopy Species Size Class DBH Age 10 Sapling 10 Sapli		Jack Pine	20	Pole	6							
Ganopy Species	16	42220 - Natu	ıral Jack P	ine F	Poletimbe	er Poor	49.1	28	1-50	N/A		Mixed jack pine and red maple with stunted cherry scattered throughout.
Sack Pine 80		Canopy Species	% Cover	Size Class	DBH	Age						
Red Maple 10 Pole/Sapling 5 Black Cherry 10 Sapling 3			80									good mixture of species. Fool stocking in portions. OSED OED St.
Black Cherry 10 Sapling 3 17 42250 - Pine, Oak Sapling Poor 3.4 10 Immature N/A Poor quality jack pine with scattered overstory red pine. Scattered low vigor oak sprouts and stunted cherry. OPIC - FMD: UPDATE: FTP #C 635 SUBMITTED FOR BURN AFTER COMPLETION OF TIMBER SA 12/31/09. Very poor quality. Some trees in the 70 age range. Potent barren management area? Several areas of standing dead jack pine. Red Pine 20 Log 12 Red Pine 20 Log 12 Log 12 Black/Red (Hybrid) Oak 40 Sapling 1 Sapling 1 Sapling 1 Sacres total). Burn as soon as possible after completion of sale. Give acres total). Burn as soon as possible after completion of sale. Give appreciate time frame with no extensions on the contract, fill out an FTP the burn before hand. The management objective for this stand is jack pine. Open pine barren areas should be expected. A poorly stocked stand with natural jack pine is acceptable. Harvest and burn with stand 48 and 122. Variance approved in Oct 2016 to drop the burn Rx and manage part of this stand for RP. That portion was split out as new stand 57. 18 42121 - Planted Jack Pine, Mixed Poletimber Well 62.9 38 51-80 N/A Approaching 20' tall. Heavier to aspen on the SE edge.OPIC - FMD: 11 tall in areas. Portions of plantation are over topped by aspen clones. Rolling topo.		Red Maple	10	Pole/Sapling	5							
Canopy Species % Cover Size Class DBH Age Jack Pine		Black Cherry	10									
Canopy Species % Cover Size Class DBH Age Jack Pine 40		10050	D' O-I-		01	D	0.4	40		N1/A		December 1 to the decimal of the second of the contract of the second of
Gafo Submitted For Burn After Completion of Timber SA Jack Pine 40 Sapling 1 10 Black/Red (Hybrid) Oak 40 Sapling 1 1 10 Red Pine 20 Log 1 2 12 Black/Red Pine 20 Log 12 12 Black/Red Pine 20 Log 10 Log 11 10 Black/Red Pine 20 Log 12 12 Black/Red Pine 20 Log 10 Log 11 10 Black/Red Pine 20 Log 10 Log 11 10 Black/Red Pine 20 Log 11 2 12 Black/Red Pine 20 Log 12 12 Black/Red (Hybrid) Oak 40 Sapling 10 Log 11 10 Black/Red (Hybrid) Oak 40 Sapling 12 12 Black/Red (Hybrid) Oak 40 Sapling 41 11 10 Black/Red (Hybrid) Oak 42 12 1 - Plantest with reserves. Leave red pine and a couple islands (1-3 acres total). Burn as soon as possible after completion of sale. Give a specific time frame with neares? Several areas of standing dead jack pine. Final Harvest with reserves. Leave red pine and a couple islands (1-3 acres total). Burn as soon as possible after completion of sale. Give a specific time frame with neares? Several areas of standing dead jack pine. Final Harvest with reserves. Leave red pine and a couple sale for the possible ofter completion of sale. Give acres total). Burn as soon as possible after completion of sale. Give acres total). Burn as soon as possible after completion of sale. Give acres total). Burn as soon as possible after completion of sale. Give acres total). Burn as soon as possible after completion of sale. Give acres total). Burn as soon as possible after complet	17						3.4	10	Immature	N/A		
Black/Red (Hybrid) Oak 40 Sapling 1 Red Pine 20 Log 12 Barren management area? Several areas of standing dead jack pine. Final Harvest with reserves. Leave red pine and a couple islands (1-3 acres total). Burn as soon as possible after completion of sale. Give a specific time frame with no extensions on the contract, fill out an FTP final the burn before hand. The management objective for this stand is jack pine. Open pine barren areas should be expected. A poorly stocked stand with natural jack pine is acceptable. Harvest and burn with stand 48 and 122. Variance approved in Oct 2016 to drop the burn Rx and manage part of this stand for RP. That portion was split out as new stand 57. 18 42121 - Planted Jack Pine, Mixed Poletimber Well 62.9 38 51-80 N/A Approaching 20' tall. Heavier to aspen on the SE edge.OPIC - FMD: 10 tall in areas. Portions of plantation are over topped by aspen clones. Rolling topo.												635 SUBMITTED FOR BURN AFTER COMPLETION OF TIMBER SALE
Red Pine 20 Log 12 Final Harvest with reserves. Leave red pine and a couple islands (1-3 acres total). Burn as soon as possible after completion of sale. Give a specific time frame with no extensions on the contract, fill out an First the burn before hand. The management objective for this stand is jack pine. Open pine barren areas should be expected. A poorly stocked stand with natural jack pine is acceptable. Harvest and burn with stand 48 and 122. Variance approved in Oct 2016 to drop the burn Rx and manage part of this stand for RP. That portion was split out as new stand 57. 18 42121 - Planted Jack Pine, Mixed Poletimber Well 62.9 38 51-80 N/A Approaching 20' tall. Heavier to aspen on the SE edge.OPIC - FMD: 10 Deciduous Rolling topo.						10						
acres total). Burn as soon as possible after completion of sale. Give a specific time frame with no extensions on the contract, fill out an FTP for the burn before hand. The management objective for this stand is jack pine. Open pine barren areas should be expected. A poorly stocked stand with natural jack pine is acceptable. Harvest and burn with stand 48 and 122. Variance approved in Oct 2016 to drop the burn Rx and manage part of this stand for RP. That portion was split out as new stand 57. 18 42121 - Planted Jack Pine, Mixed Poletimber Well 62.9 38 51-80 N/A Approaching 20' tall. Heavier to aspen on the SE edge.OPIC - FMD: 10 tall in areas. Portions of plantation are over topped by aspen clones. Rolling topo.	Bla	ck/Red (Hybrid) Oak		Sapling								
18 42121 - Planted Jack Pine, Mixed Poletimber Well 62.9 38 51-80 N/A Approaching 20' tall. Heavier to aspen on the SE edge.OPIC - FMD: 10 tall in areas. Portions of plantation are over topped by aspen clones. Rolling topo.		Red Pine	20	Log	12							acres total). Burn as soon as possible after completion of sale. Give a specific time frame with no extensions on the contract, fill out an FTP for the burn before hand. The management objective for this stand is jack pine. Open pine barren areas should be expected. A poorly stocked stand with natural jack pine is acceptable. Harvest and burn with stands 48 and 122. Variance approved in Oct 2016 to drop the burn Rx and manage part of this stand for RP. That portion was split out as new
Canopy Species % Cover Size Class DBn Age	18	Deci	duous				62.9	38	51-80	N/A		Approaching 20' tall. Heavier to aspen on the SE edge.OPIC - FMD: 10' tall in areas. Portions of plantation are over topped by aspen clones.
Jack Pine 75 Pole/Sapling 5 38												· • • · · · ·
		Jack Pine	75	Pole/Sapling	5	38						



	42220 - Natu	rol look Di										
		iiai Jack Pi	ine :	Sapling N	/ledium	43.0	18	Immature	N/A		Moderately stocked. Not much for regen. Ground cover dominated by blueberry. Good aesthetics with open understory and scattered large	
	anopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	pine. OPIC - FMD: Harvested in 2001. Natural regen. Bigger white pine	
D1 1/	Jack Pine	70	Sapling/Pole	e 4	18	Bla	ck Cherry	Trace	5 - 10 feet	Sapling	and red pine found in the north. A few oak sprouts. Horse trail runs	
Black/	/Red (Hybrid) Oak	10	Sapling/Pole	e 4							through stand.	
	Red Pine	15	Log	12								
20	4133 - Asper	n, Mixed Pi	ne Po	oletimber	Medium	13.2	35	1-50	N/A		Aspen pole with patches of mixed conifer. White oak saplings mixed in	
С	anopy Species	% Cover			Age						aspen areas.OPIC - FMD: Patchy with areas of porr stocking - oak, maple, and pine mixed in. Majority of aspen is 20 - 30' tall.	
Qı	uaking Aspen	40	Pole/Sapling	g 6	35						, , ,	
	Red Maple	20	Sapling/Pole	e 4								
	White Oak	10	Sapling	3								
Black/	/Red (Hybrid) Oak	10	Sapling	3								
	Jack Pine	10	Pole	6								
	Red Pine	10	Log/Pole	12								
21	42250 - F	Pine, Oak		Sawtimbe	er Well	4.7	60	81-110	N/A		Quality oak regen in canopy gaps created by over story mortality FMD:	
С	anopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Hold as is. A couple nice sticks of jack pine. Saw log oak and maple. Dead tops and blowdown. Provides a nice island of refuge from	
	Jack Pine	60	Log/Pole	10	60	W	hite Pine	Trace	5 - 10 feet	Sapling	surrounding treatments.	
Black/	/Red (Hybrid) Oak	30	Log/XLog	16		W	hite Oak	Medium	10 - 20 feet	Sapling		
22	4126 - White, B			awtimber			105	1-50	N/A		Horse trail traverses southern third of the stand. A few large red pine in the SE corner.OPIC - FMD: Stand was shelterwood harvested, residual	
		% Cover	Size Class		Age		nopy Species		Avg. Height	Size	BA of 40 sq ft. Sale # 0060201. Understory is currently red maple	
	Red (Hybrid) Oak	70	Log	12	105		ed Maple	Medium	10 - 20 feet	Sapling	clumps and aspen clones. May treat portion south of horse trail. Burn	
	White Oak	30	Log	10	105	Qual	king Aspen	Medium	10 - 20 feet	Sapling	with stands 4, 47, 48, and 122	
24	4191 - Mixed Upla Cor	nd Decidud	ous with	Sapling N	/ledium	27.3	28	Immature	N/A		Maple and oak are mostly stump sprout origin. Scattered jack pine patches. Frost pockets in the kettles of the rolling topo primarily sedges	
С	Canopy Species	% Cover	Size Class	DBH	Age						and sweet fern.OPIC - FMD: The stand starts out as a J3 and the transitions into an oak/red maple type with scattered aspen and pine.	
	Red Maple	50	Sapling	3	28						The regen is 10 - 25' tall. Browse present. Rolling topo. Areas of poor	
Black/	Red (Hybrid) Oak	30	Sapling	4							stocking found.	
25	4130 -	Aspen		Poletimbe	er Well	5.2	46	81-110	N/A		Some density dependent mortality as the stand transitions to sawlog	
	Canopy Species	% Cover	Size Class	DBH							size. OPIC - FMD: Stand will be an A6 next YOE. Mixed pine, rm, and	
	igtooth Aspen	90	Pole	8	46						oak present.	
	Red Maple	10	Sapling	4	40							
27	42221 - Natural .	Jack Pine, duous		oletimber	Medium	62.9	58	1-50	N/A		Jack pine look good and vigorous for their age. OPIC - FMD: Stand was picked through in the 70's. The jack pine is in good shape, average	
С	Canopy Species	% Cover	Size Class	DBH	Age						quality oak, aspen has hypox. Some red pine establishing in the understory.	
	Jack Pine	60	Pole	8	58						andorotory.	
Black/	Red (Hybrid) Oak	20	Log/Pole	10								

Report 7 - Stands

Stand	Level 4 C	over Type		Size Density	Acres	Stand Age	BA Range	Managed	Site	General Comments				
28	310 - Herbac	eous Open	land	Nonstocked	45.9	0 (Jnspecified	4211 - Planted	Red Pine	Was cut in 2014 (#039-11). Variance approved 2016 to change MO to				
					Sub-Car	nopy Species	Density	Avg. Height	Size	planted RP, allowing roller chopping & herbicide use if necessary. Herbicide was applied by skidder in July 2017, followed by trenching in				
					Re	ed Pine	Full	< 5 feet	Seeding	August 2017 (C72-767), & RP was planted in May 2018. Yr 1 regen				
					Northe	ern Pin Oak	Medium	5 - 10 feet	Sapling	survey in Oct 2018 found 47.3% mortality and 80.5% free-to-grow. 895				
					Re	ed Pine	Trace	>20 feet	Log	initial stocking - 47.3% = 472 RP estimated stocking. Mortality seemed to be a combination of drought stress & burying too deep (from trench				
					Wh	nite Oak	Trace	>20 feet	Log	wall erosion), with the poorer-developed planting stock faring the worst.				
					Bigto	oth Aspen	Low	5 - 10 feet	Sapling	Portion of the oak re-sprouted; increases to N & NW. Re-planted w/ top-				
					Blac	ck Cherry	Low	5 - 10 feet	Tall Shrub	pruned 4-0 bareroot RP in April 2019. Yr 1 regen survey Oct 2019 following replant. 11.75% mortality and 80.25% FTG. 981 initial planting -				
										11.75% mortality = 866 RP established. Pockets of lower (<75%) FTG that brought the average down. Trenches are filling in with sweet fern and sedge. Oak is the main competitor. BTA sapling pocket located in the SW corner near Townline road.				
29	4130	- Aspen		Poletimber Wel	II 6.2	46	81-110	N/A		Some aspen approaching sawlog size. OPIC - FMD: Big Red pine alon the road. A vein of jack pine also in stand. Would recommend the				
(Canopy Species	% Cover	Size Class	DBH Age						removal of the pine during the next treatment, this will maximize aspen				
В	igtooth Aspen	85	Pole 6 46							regen.				
	Red Pine	10	Log	14										
30	42220 - Nat	ural Jack P	ine	Sawtimber Wel	II 86.2	60	81-110	N/A		Some jack pine mortality and broken tops. vigor has plateaued based on examination of increment core. OPIC - FMD: Rolling topo. Red pine and				
(Canopy Species		Size Class		Sub-Car	nopy Species	Density	Avg. Height	Size	poor quality oak mixed through out. Jack pine quality varies, some areas				
	Jack Pine	75	Log/Pole			earberry	Medium	< 5 feet	Tall Shrub	look very good. Pockets of J4 and U types. North east portion of stand				
Black	/Red (Hybrid) Oak	15	Log	14 100	Common Lo	wbush Bluebe	erry High	< 5 feet	Tall Shrub	has pockets of J5 under 30' tall - harvested in the 70's. This stand is in better condition than the adjacent stands to the north. Recommend				
										holding this stand for 10 and treating the northern stands. A few relic red pine present.				
31	31 4126 - White, Black, N. Pin Oak Sawtimber Medic					97	1-50	N/A		The majority of black/red oak regen continues to be heavily browsed. White oak regen is fairly evenly distributed and approaching 20'tall.				
C	Canopy Species	% Cover	Size Class		Sub-Car	nopy Species	Density	Avg. Height	Size	OPIC - FMD: Sale was shelterwood harvested with a residual BA of 50 sq				
	White Oak	46	Log/Pole	10 97		nite Oak	Medium	10 - 20 feet	Sapling	ft/acre. Sale # 0060201. Decent jack pine regen found at old landing.				
Black	/Red (Hybrid) Oak	44	Log/Pole	10 97	Black/Red	d (Hybrid) Oal	Medium	< 5 feet	Sapling	Scattered pine in understory. Areas where white oak seedling are above the browse line. Northern pin regen is typical for area, heavy browse.				
	Red Pine	10	Pole/Log	8	Re	ed Pine	Trace	5 - 10 feet	Sapling	Old SI used				
32	122 - Road	d/Parking L	ot	Nonstocked	7.1	0		No		Townline Road				
34	4130	- Aspen		Sapling Medium	n 61.7	26	Immature	N/A		OPIC - FMD: Pockets of A3 surrounded by open areas with jack pine,				
(Canopy Species	% Cover	Size Class							oak, cherry brush, and red maple. (A3-O2-U2-M2) Rolling topo. There is a small Q6 along the power line at the base of the hill.				
Q	uaking Aspen	80	Sapling/Po	le 4 26						3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -				
	White Pine	10	Log	16										



Stand	Level 4 Co	ver Type	\$	Size Density		Stand Age	BA Range	Managed Site	General Comments		
36	330 - Low-D	330 - Low-Density Trees			24.1	0	Unspecified	4199 - Other Mixed Upland Deciduous	Some non-forested areas dominated by cherry brush, grasses, sedges, blueberry, and sweet fern.		
									Variance approved on 9-22-2016 to drop trenching and planting and change the MO to Mixed Deciduous, accepting a moderately stocked stand.		
									Stand harvested under contract 72-039-11-01, Magic Dragon Mix. Stand is scheduled to be planted around residual left from harvest, TMS will make final decision.		
									OPIC - FMD: Open, below average quality stand. Looks like prior treatments removed majority of timber except for oak (60's - early 70's). Delayed removal, harvest trees 5" or greater in diameter. Leave red pine and white pine, mark some healthy oak scattered through out to leave. For retention, leave an adequate visual buffer (1-2 acres) along walsh Rd. Trench and plant (jack or red pine) around residual. Old SI used		
37	42220 - Natu	ıral Jack F	Pine P	oletimber Well	13.7	59	51-80	N/A	Jack pine pole with some natural openings. East border follows		
	Canopy Species	% Cover	Size Class	DBH Age					topography were there is a small drop and transition to the river corridor. OPIC - FMD: Areas of stand had timber removed in the 60's. A sawlog		
	Jack Pine	90	Pole/Log	8 59					here and there, timber is a little larger in the south. Stand serves as ar		
Blac	k/Red (Hybrid) Oak	10	Log	14					extra river buffer.		
38	8 4133 - Aspen, Mixed Pine Sawtimber Med		wtimber Medium	_	65 51-80	51-80	N/A	River corridor. Some areas of conifer mortality from intermittent flooding Some beaver activity observed. OPIC - FMD: North portion of stand is a			
	Canopy Species	% Cover Size Class		DBH Age					R8/J8. A couple cedar along the creek. Areas of L3 and grass.		
	Quaking Aspen	60	Log/Pole						Tamarack, fir, jack pine, and red pine = 98. This is a river flood plain area. The Middle branch of Big Creek is located within the stand. This creek is a designated "Natural River" these rivers have been given HCVA designation. This stand falls within the NR boundary. This is the		
	Jack Pine	10	Log/Pole	10							
	Red Maple	10	Log/Pole	10							
	Red Pine	10	Log	16					reason for the 08 stand condition code.		
Blac	k/Red (Hybrid) Oak	10	Log	16							
39	4131 - As	spen, Oak	P	oletimber Well	4.8	26	Immature	N/A	Approaching pole size. lower quality stem form. OPIC - FMD: 20' tall. Super Canopy red pine and oak. Looks like pvt maybe starting to		
	Canopy Species	% Cover	Size Class	DBH Age					encroach. Old SI used.		
	Quaking Aspen	60	Pole/Sapling	5 26							
Blac	k/Red (Hybrid) Oak	30	Pole/Sapling	5							
	Red Pine	10	Log	14							
40	40 42221 - Natural Jack Pine, Mixed Sawtimber F Deciduous		awtimber Poor	11.3	77	1-50	N/A	OPIC - FMD: Some bigger jack pine with 4 sticks. Open areas with cherry brush. Variable age classes. A couple fishing/camping areas			
	Canopy Species	% Cover	Size Class	s DBH Age					within the stand. Close to Middle Br Big Creek. Old Si used.		
	Jack Pine	70	Log/Pole	10 77							
	Black Cherry	15	Pole/Sapling	apling 5							
ı 											



Stan	d Level 4 Co	over Type	Size Density Acres Stand Age BA Range Managed Site		Site	General Comments					
41	4132 - Aspe	en, Jack Pine		Sawtimber Medium		า 9.9	60	51-80	N/A		Regen dominated by red maple. Heavy browse on oak. OPIC - FMD:
	Canopy Species	% Cover	Size Class	DBH	Age						Mixed stand. Heavy browse. Red maple seems to be the most consistant through out Cherry, oak, jack pine, red pine, and white pine
	Quaking Aspen	60	Log/Pole	10	60						also present. Open brushy areas present. A couple local camping spots
	Jack Pine	25	Log	12							found here. Regen is 15+' tall in areas. Old SI used
Bla	ck/Red (Hybrid) Oak	10	Log/Pole	10							
42	4130	- Aspen		Sapling	Well	12.3	18	Immature	N/A		Aspen regen distributed in several large patches with oak and maple
	Canopy Species	% Cover	Size Class	DBH	Age						sprouts. Some areas of lower density. OPIC - FMD: Patchy in density & quality. Mixed pine, oak and red maple also present. Stand final
	Quaking Aspen	85	Sapling	2	18						harvested 2001. Timber sale number 720070101. Old SI used.
	Jack Pine	10	Sapling	3							
43	310 - Herbac	310 - Herbaceous Openland			cked	17.2	0	Unspecified	4139 - Aspen Deciduo		Oak regen is heavily browsed some small patches of aspen and red maple. jack pine seedlings are well dispersed but low density. Variance
						Sub-Canopy Speci		es Density	Avg. Height	Size	approved on 9-22-2016 to drop trenching and planting and change the MO to Mixed Deciduous, accepting a moderately stocked stand.
							ck Cherry	erry Low	10 - 20 feet	Sapling	ino to mixed Deciduous, accepting a moderatery stocked stand.
						Bigto	oth Aspen	Medium	5 - 10 feet	Sapling	Trench and plant jack pine around natural regeneration. Management
						Re	ed Maple	Low	5 - 10 feet	Sapling	objective for this stand is jack pine.
						Black/Re	d (Hybrid) Oa	ak Medium	< 5 feet	Sapling	
						Jack Pine		Low	< 5 feet Seeding]
44	4310 - Pir	ne, Oak Mix		Sawtimb	er Well	5.8	40	81-110	N/A		XLog red pine 120+ y/o. Could not get an accurate age due to increment
	Canopy Species	% Cover Size Clas		DBH	Age						borer being too small. Starting to see multi age red pine composition. OPIC - FMD: Some good looking oak in the under story. Stand makes a
Bla	ck/Red (Hybrid) Oak	25	Log	14							nice refuge island for surrounding treatments. A pocket os sawlog size
	Jack Pine	10	Pole	8							aspen in the south. A few relic pine must be in the 100 range.
	Red Pine	40	Pole	8	40						
	Red Pine	20	XLog	24	120						
45	4130	- Aspen		Sapling N	/ledium	20.2	18	Immature	N/A		Some oak sprouts are above deer browse. OPIC - FMD: Pockets of A3
	Canopy Species	% Cover	Size Class	DBH	Age						with open areas of oak and red maple. A couple wp in stand too. Extensive browse. May want to consider planting the open areas with jp.
	Quaking Aspen	80	Sapling	3	18						Some pockets of aspen reaching 10' tall. Stand final harvested 2001.
	Red Maple	10	Sapling	4							Timber sale number 720070101. Old SI used.
Bla	ck/Red (Hybrid) Oak	10	Sapling	4							



Stand	Level 4 Co	ver Type		Size De	nsity	Acres	Stand Age	BA Range	Managed Si	ite	General Comments	
		Pine, Oak	Size Class Sapling Sapling Log	Sapling DBH 1 1 12	Poor Age 10	16.3	10	Immature	N/A		Some oak sprouts on the north end are above browse hight. patches of jack pine seedling and sapling scattered throughout. OPIC - FMD: UPDATE: FTP #C72-635 SUBMITTED FOR BURN AFTER COMPLETION OF TIMBER SALE 12/31/09. Very poor quality. Some trees in the 70 age range. Potential barren management area? Several areas of standing dead jack pine. Final Harvest with reserves. Leave red pine and a couple islands (1-3 acres total). Burn as soon as possible after completion of sale. Give a specific time frame with no extensions on the contract, fill out an FTP for the burn before hand. The management objective for this stand is jack pine. Open pine barren areas should be expected. A poorly stocked stand with natural jack pine is acceptable. Harvest and burn with stands 48 and 122. Variance approved in Oct 2016 to drop the burn Rx and manage part of this stand for RP. That portion was split out as new stand 57.	
48	310 - Herbace	ous Open	land	Nonsto	cked	42.1	0	Unspecified	4222 - Natural J	ack Pine	OPIC - FMD: UPDATE: FTP #C72-635 SUBMITTED FOR BURN AFTER COMPLETION OF TIMBER SALE 12/31/09. Very poor quality. Stunted areas. Potential barren management area? Several areas of standing dead jack pine. A couple clones of aspen present. Final Harvest with reserves. Leave red pine and a couple islands (3-6 acres total). Burn as soon as possible after completion of sale. Give a specific time frame with no extensions on the contract, fill out an FTP for the burn before hand. The management objective for this stand is jack pine. Open pine barren areas should be expected. A poorly stocked stand with natural jack pine is acceptable. Harvest and Burn with stands 47 and 122. Old age and SI used. Variance approved in Oct 2016 to drop the burn Rx and manage part of this stand for RP. That portion was split out as new stand 57.	
49	4132 - Aspe	n, Jack Pi	ne	Sapling	Well	85.8	30	Immature	N/A		rolling topo. aspen on hill tops jack pine in frost pockets, some patches of	
(Canopy Species	% Cover	Size Class	DBH	Age						grass/sedge. OPIC - FMD: Stand is an A3 with veins of jack pine regen running through it. Very cool stand. BT= 20' tall. Jack pine = 10' tall.	
C	Quaking Aspen	60	Sapling/Pole	4	30						Old SI used.	
	Jack Pine	40	Sapling/Pole	4	30							
50	4125 - Black	, N. Pin O	ak Sa	wtimber	Medium	26.9	106	1-50	N/A		Approximately 15% overstory mortality. Regen is mostly red maple sprouts and aspen FMD: This stand has the best quality within the	
(Canopy Species	% Cover	Size Class		Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	compartment. However, several areas show quite a bit of logging	
Black	/Red (Hybrid) Oak	85	Log/XLog		106	Re	ed Maple	Full	>20 feet	Sapling	damage. Some oak regen above the browse line. Pockets of aspen	
	White Oak	15	Log	14	106		king Aspen	High	>20 feet	Sapling	mixed in with the red maple understory. Stand was shelterwood harvested last YOE with an oak BA of 50 sq ft remaining. Sale #	
						Black/Red (Hybrid) Oak		k Trace	< 5 feet	Sapling	0060201. 05/15/2019 Approx. 10-20% mortality in the overstory. Very little oak regen-primarily red maple and aspen	
51		Aspen	F	Poletimb		55.5	48	81-110	N/A		Open areas with oak and red maple clumps. Scattered red pine. Stand bisected by power line.	
	<u> </u>	% Cover	Size Class	DBH	Age						bisected by power line.	
	Canopy Species	70 COVE	Size Class		Age							
(Quaking Aspen	85	Pole	6	48							

Grayling Mgt. Unit



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed	Site	General Comments		
52	4113 - R.M	fer	Poletimber Wel		6.9	48	81-110	N/A		Some overstory oak mortality. Some very large red pine. OPIC - FMD: East side of cut. Some areas of A6, others of O6/M6. Red pine was left.			
	Canopy Species	% Cover	Size Class		Age						There are some super canopy red pine pockets through out. Higher		
	Red Maple	60	Pole	6	48						concentration on this side. Old SI used.		
Bla	ck/Red (Hybrid) Oak	10	Log	14									
	Red Pine	20	XLog	24	150								
	Quaking Aspen	10	Pole	8									
55	42220 - Nati	ural Jack F	Pine	Poletimb	er Well	37.1	48	51-80	N/A		Walsh rd. camp to the north. OPIC - FMD: DBH cut in 71. Small clones of aspen in stand, some sawlog red pine, and other areas of 1 stick J4.		
	Canopy Species	% Cover	Size Class	DBH	Age						Stand looks to be in good shape.		
	Jack Pine	90	Pole	8	48						·		
	Quaking Aspen	10	Pole	6	48								
57	310 - Herbac	eous Oper	nland	Nonsto	cked	45.4	0	Unspecified	4211 - Planted	d Red Pine	Was cut in 2012 (#020-11). C72-635 submitted for Rx burn. Variance		
						Sub-Ca	nopy Specie	s Density	Avg. Height	Size	approved in Oct 2016 to drop the burn & manage the sparser portions of stands 47, 48 & 122 for RP. Those portions were split out as this new		
						R	ed Pine	Full	< 5 feet	Seeding	stand 57, which had herbicide applied by skidder in July 2017 followed by		
						R	ed Pine	Trace	>20 feet	Log	trenching the same month (C72-809), & RP was planted in May 2018. Yr		
						Bla	ck Cherry	Low	5 - 10 feet	Sapling	1 regen survey in Oct 2018 found 35.9% mortality and 87% free-to-grow. 961 initial stocking - 35.9% = 616 RP estimated stocking. Mortality		
					Re	ed Maple	Low	5 - 10 feet	Sapling	varied widely and seemed to be a combination of drought stress &			
				Northern Pin Oak		Low	10 - 20 feet	Sapling	burying too deep (from trench wall erosion), with the poorer-developed				
				Já	ack Pine	Trace		planting stock faring the worst. A portion of the oak re-sprouted, more on the upper slopes to the north. Re-planted w/ top-pruned 4-0 bareroot RP					
						Bigto	ooth Aspen	Trace	< 5 feet	Sapling	in April 2019. Yr 1 regen survey in Oct 2019 following the replant. 8.4%		
											mortality & 84% FTG. 1030 initial stocking - 8.4% = 943 RP established. Oak has sprouted back & is the main competitor, with denser oak regen in the NW section. Majority of the site is clean, with open trenches and RP seedlings averaging 0.9" in height.		
58	310 - Herbaceous Openland			Nonstocked		6.4		Unspecified	4222 - Natura		Variance approved on 9-22-2016 to change MO to planted red pine, allowing herbicide and roller chopping if necessary. North finger of the		
							nopy Specie		Avg. Height	Size	stand will not be planted and will be left to naturally regenerate with a		
							ed (Hybrid) Oa		< 5 feet	Sapling	management objective of aspen, oak.		
						Já	ack Pine	Low	< 5 feet	Seeding	Harvested in 2014 under contract #72-039-11-01.		
122	310 - Herbaceous Openland			Nonsto	cked	16.3	0	Immature	4222 - Natura		OPIC - FMD: UPDATE: FTP #C72-635 SUBMITTED FOR BURN AFTER COMPLETION OF TIMBER SALE 12/31/09. Stand was shelterwood		
							nopy Specie		Avg. Height	Size	harvested, residual BA of 40 sq ft. Sale # 0060201. Understory is		
							ed Maple	Medium	>20 feet	Sapling	currently red maple clumps and aspen clones. This is the southern		
							king Aspen	Medium	>20 feet	Sapling	portion of stand 22. Quality is not as good as northern portions. Final harvest no reserves: Note that boundary line does not run adjacent to		
							ed (Hybrid) Oa		< 5 feet	Sapling	horse trail. Consider this portion a reserve area. Prescribe with stands		
						Já	ack Pine	Medium	10 - 20 feet	Sapling	47 and 48. Leave some scattered red pine if available. The		
		,							management objective is oak and mixed pine. Moderately stocked mixed pine with an oak component is acceptable. If natural regeneration is inadequate, plant red pine while protecting natural oak regen. Variance approved in Oct 2016 to drop the burn Rx and manage part of this stand for RP. That portion was split out as new stand 57.				

Grayling Mgt. Unit Report 7 – Stands



Stand	Level 4 Cover Type	Size Density	Acres Stand Age BA Range	Managed Site	General Comments	MICHIGAN .
400	3102 - Grass	Nonstocked	8.4	No	OPIC - FMD: NORTH MICHIGAN ELECTRIC COOP. LE TRANSION LINE.	:WIS-LOVELL