

# **Compartment Review Presentation**

**Crystal Falls Forest Management Unit** 

Compartment 12157 Entry Year: 2027 Acreage: 990 County: Iron Management Area: Brule River

### Stand Examiner: Ed Rice

### Legal Description:

T42N-R32W sections 3, 10, 11

### **Identified Planning Goals:**

Develop age class distribution in aspen type. Maintain health of conifer types and increase acreage where possible. Promote red pine types towards natural pine management. Encourage oak recruitment.

### Soil and topography:

Vilas-Karlin complex on flat to rolling hills with a few small low areas and drains.

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

State lands mixed with company lands and some private parcels. Lands used mainly for hunting and fishing and managed for timber products.

### **Unique Natural Features:**

Mud Lake, Tim Bowers Pond and Paint River.

### Archeological, Historical, and Cultural Features:

None

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

Michigan Natural Features show several animal occurrences.

### Watershed and Fisheries Considerations:

Stream buffers should be implemented. Streams, regardless of their size or frequency of flow, are connected to downstream waters and strongly influence their function. Additionally, wetlands and open waters in riparian areas and floodplains are physically, chemically, and biologically integrated with rivers via functions that improve downstream water quality. These systems act as effective buffers to protect downstream waters from pollution and are essential components of river food webs. BMP's should be implemented to control sediment sources from adjacent uplands. Fine sediments such as silt and sand negatively affect natural reproduction of fish, decrease the diversity of aquatic invertebrate and fish taxa, and result in lower overall fish populations.

### Wildlife Habitat Considerations:

This compartment is part of the Panola Plains Management Area. The predominant wildlife habitat features, in this compartment, are the large opening complexes that have been maintained on an annual basis by wildlife division through fire and herbaceous plantings. Eastern bluebird is the featured species that is managed for to monitor the health of the opening complex. In addition, ideal Kirtland's warbler jack pine habitat is located within this compartment. The blueberry, serviceberry, cherry and oak shrubs and trees that are promoted in this compartment, in openings and forest understories, provide hard and soft mast for bear, deer, turkeys, grouse and a variety of non-game wildlife species. During this inventory cycle, heavy winter deer use was observed throughout the compartment, notably in the mixed pine types.

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

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 50 and 100 feet. The Precambrian Michigamme Formation and Amasa iron formation underlie the glacial drift. Abandoned iron mines are located less than two miles to the north. The nearest gravel pit may be in Section 8. There is no economic oil and gas production in the UP.

#### Vehicle Access:

Off US-2 on Panola Plains Road and associated woods roads.

#### Survey Needs:

None.

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

#### **Fire Protection:**

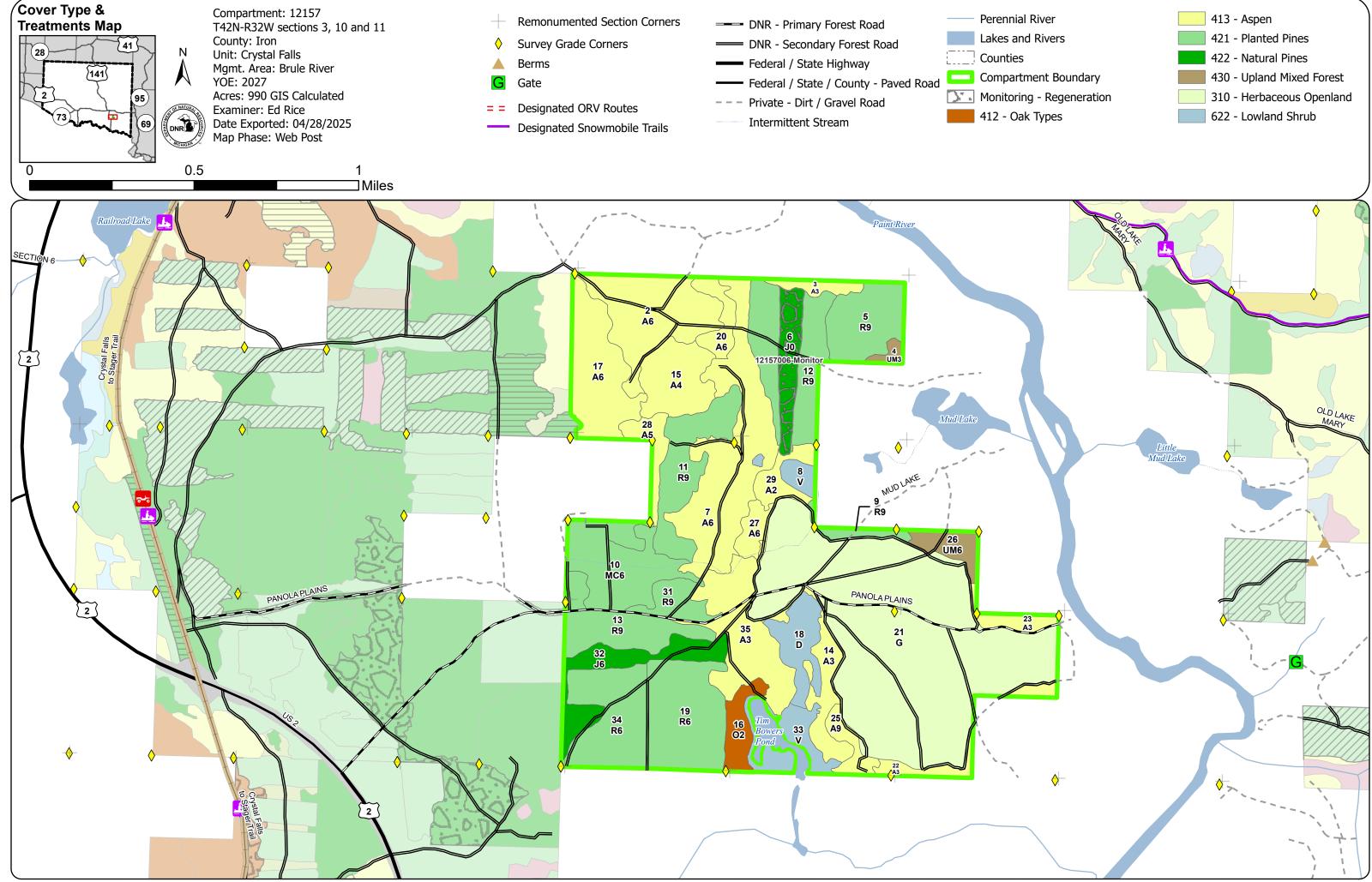
The dry, sand ground lends itself to wildfire. There are only a few jack pine stands remaining, the rest of the pine fuel type is open, park like red pine. Any start, for the most part, would be mainly confined to ground fire. Road access is good, the Paint River as a water source is nearby.

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

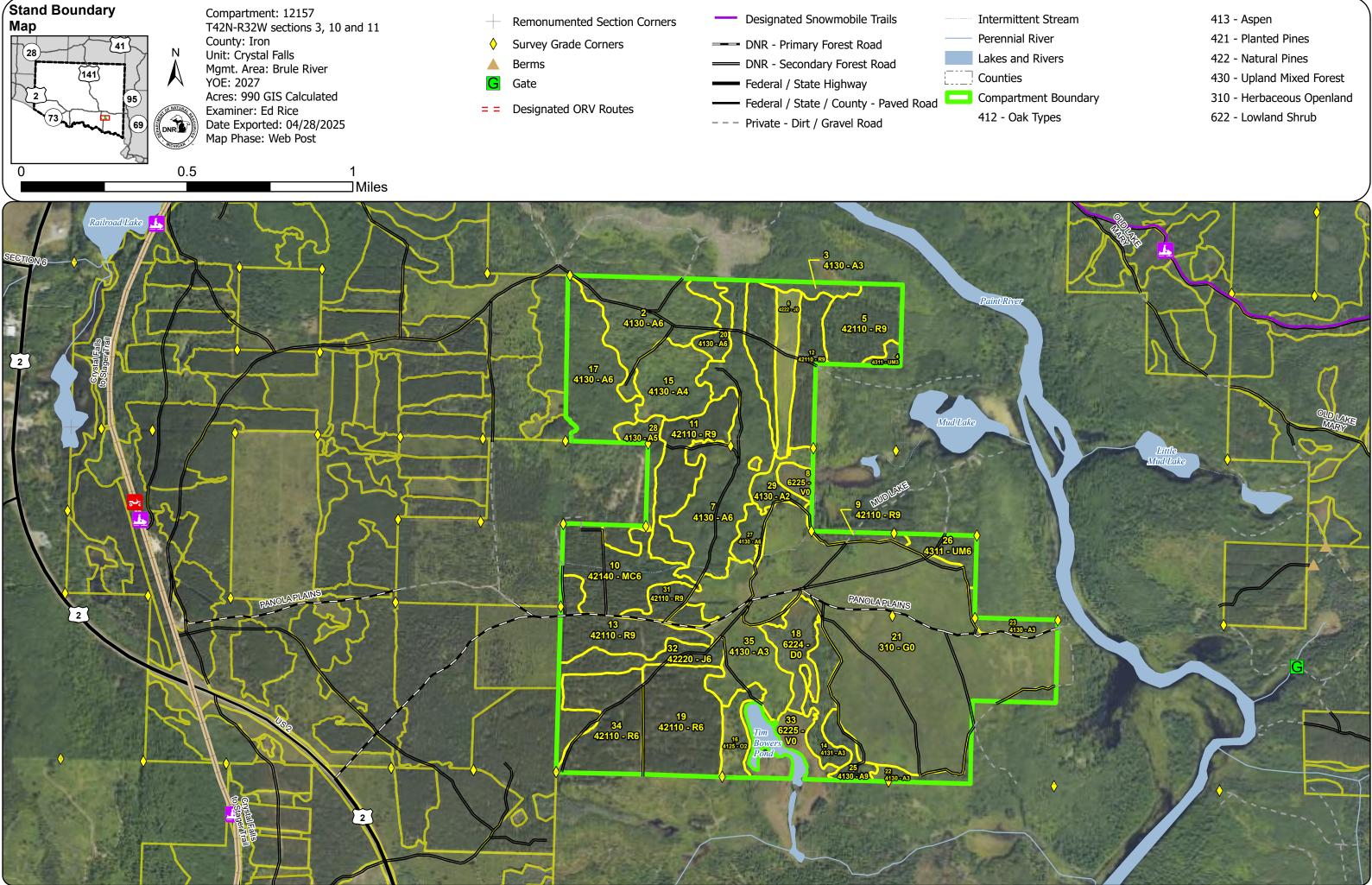
None.

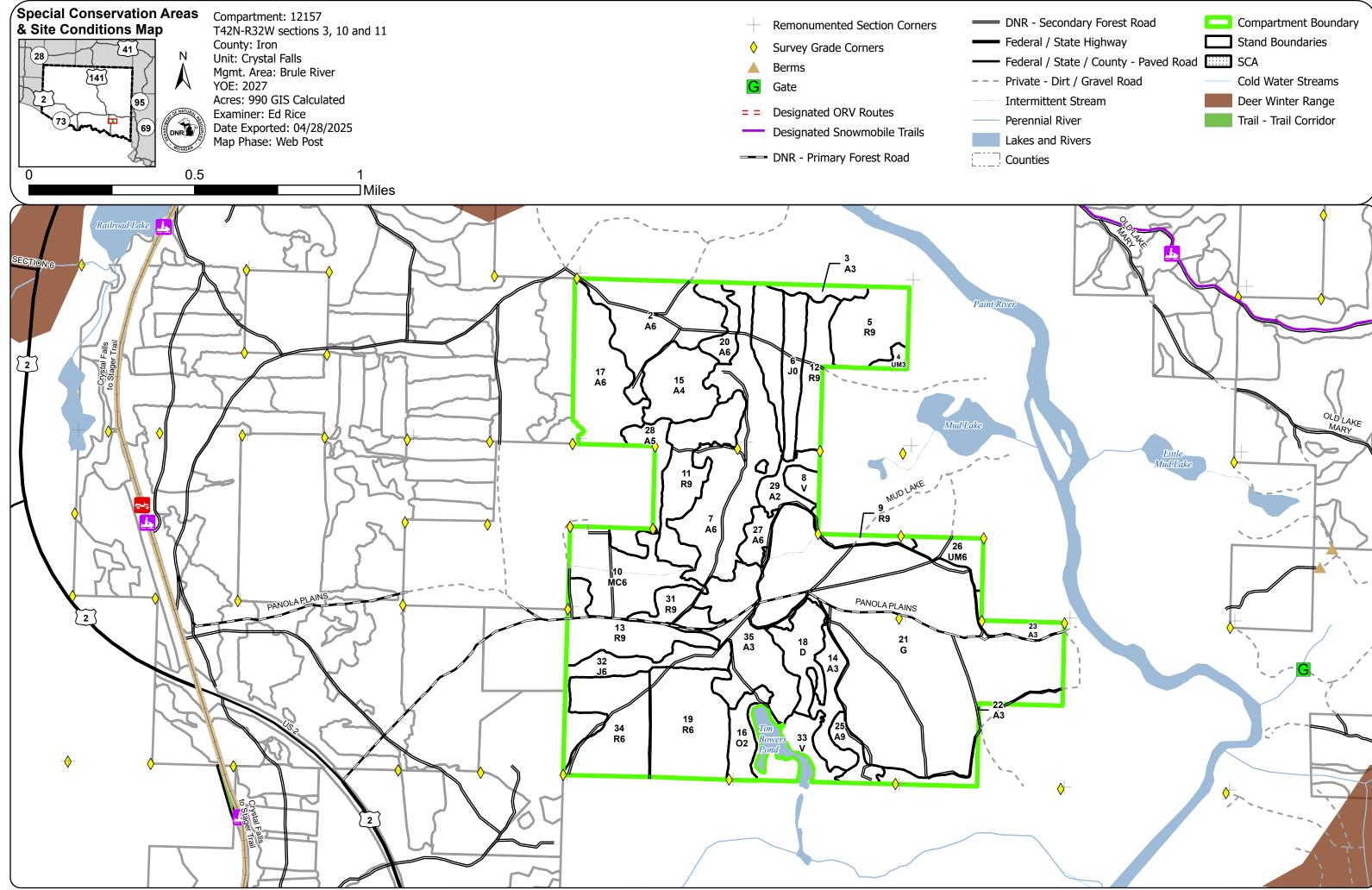
The following reports from the Inventory are attached: Total Acres by Cover Type and Age Class Cover Type by Harvest Method Proposed Treatments – No Limiting Factors Proposed Treatments – With Limiting Factors Stand Details (Forested and Nonforested) Dedicated and Proposed Special Conservation Areas 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











### Ed Rice: Examiner

Compartment 157 Year of Entry 2027



Age Class

	Hor		3 4	22 22	P .35	3	199 IN	3		\$° \$	\$ \$	s la	<sup>7</sup> /a <sup>7</sup>	Q. 43	82 S3	63 5 5	Ob si	yr yret	AND LOO
Aspen	0	46	30	34	165	62	0	0	0	0	0	0	0	0	0	0	0	0	337
Bog	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Herbaceous Openland	241	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	241
Jack Pine	18	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	44
Oak	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Planted Mixed Pines	0	0	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	0	41
Red Pine	0	0	0	0	0	0	0	244	9	0	0	0	0	0	0	0	0	0	252
Treed Bog	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Upland Mixed Forest	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Total	305	59	30	48	165	62	27	244	50	0	0	0	0	0	0	0	0	0	988



· MICHIGAN ···	Crystal Falls Mgt. Unit		Compartment 157	7
CHIGH	Year of Entry: 2027	Acres of Harvest	Total Compartment Acres: 990	0
		Commercial Harvest - 188		
		Harvests with Site Condition - 0		
		Next Step Harvest - 0		
		Habitat Cut - 0		

### Cover Type by Harvest Method

			Concert of the second s	Contraction of the second	to to	and the second	icon L	Contraction of the second	Not the second	es and a second	State 1,50	ALC AND
Aspen		22	0	0	0	0	0	0	0	0	22	
Jack Pine		27	0	0	0	0	0	0	0	0	27	
Red Pine		0	8	0	0	0	132	0	0	0	140	
	Total	49	8	0	0	0	132	0	0	0	189	

# Proposed and Next Step Treatments by Method

			C. C.	and and a	in contraction of the second	Sec. C	in the second	AL COLOR	Side	SEO LO	40 / 20	R. C.
Current		189	0	29	0	241	0	18	0	0	477	
Next Step		0	0	0	0	0	0	241	0	0	241	
	Total	189	0	29	0	241	0	259	0	0	718	]

d		rystal Falls	Mgt. Unit		Repo	rt 3 <sup>·</sup>	Treatments		Compartment Year of Entry		DNR
	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Hab Cu
	d Treatmen		2110 - Planted Rec	1 6	64	141-	Harvest	Thinning	4122 - Oak, Pine	Cutting	N
			Pine BA. Harvest merch			170		-		Record	
<u>Specs</u> <u>Next S</u> Treatm	Step										
	table Any co	mbination o	f pine and pin oak.								
<u>Other</u> Comm	Move s	stand toward	ls more natural mi	xed pine, re	ecruiting	other tree	species.				
	ondition: sed Start Date	<u> </u>	26								
<b>32</b> 1	12157032-Cut	26.5 42	220 - Natural Jack Pine	K 6	56	Unspeci fied	Harvest	Clearcut	4222 - Natural Jack Pine	Planting Record	١
Prescr Specs		k pine 4.6" c		not cut oak	, red pir		e pine. delay har	vest to cut with ad	jacent stand 75 in co		12158
	<u>nent:</u> ondition: sed Start Date	<u> </u>	32								
<u>31</u>	12157031-		2110 - Planted Rec	1 9	75	81-110	Harvest	Selection	4122 - Oak, Pine		N
Prescr Specs		70 BA. Foc	Pine ous leave trees on l	arger, dom	iinate re	d pine. Do	not cut white pir	ne or oak. Protect	pine and oak advan	Record ced regenera	ition.
<u>Next S</u> <u>Treatm</u>											
<u>Accept</u> Regen		mbination o	f oak, white pine, r	ed pine, ja	ck pine.						
Other	nent:										
Comm	ondition:										
Site Co	sed Start Date										

### **Report 3 -- Treatments**

t											· ·
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habi Cu
21	12157021- Burn	241.3	310 - Herbaceous Openland	99			Burn	Prescribed Burn	310 - Herbaceous Openland	Previous Inventory	N
Prescr Specs:		n and/or m	nechanical opening m	aintenance	e				·		
<u>Next S</u> Treatm		ring, Habit	at Monitoring								
<u>Accept</u> Regen											
<u>Other</u> Comm	ient:										
	<u>ondition:</u> sed Start Date	: 04/01/2	025								
19	12157019- Crown Thinning	48.94	42110 - Planted Red Pine	6	64	141- 170	Harvest	Thinning	4122 - Oak, Pine	Cutting Record	Ν
	Thinning										
		110-120 I	3A. Do not cut assoc	iated white	pine or	oak. Prot	ect any oak and	spruce/fir.			
Prescr Specs Next S Treatm	<u>:</u> Step_	110-120 H	BA. Do not cut assoc	iated white	pine or	oak. Prot	ect any oak and	spruce/fir.			
Specs Next S Treatm Accept	<u>: itep_</u> <u>nents:</u> table_	110-120 8	3A. Do not cut assoc	iated white	pine or	oak. Prot	ect any oak and	spruce/fir.			
Specs Next S Treatm Accept Regen Other	<u>: hents:</u> table_ <u>:</u> Move s		3A. Do not cut assoc				-	spruce/fir.			
Specs Next S Treatm Accept Regen Other Comm	<u>: hents:</u> t <u>able_</u> <u>L:</u> Move s hent:						-	spruce/fir.			
Specs Next S Treatm Accept Regen Other Comm Site Co	<u>: table</u> <u>table</u> <u>t:</u> Move s tent: ondition:	stand towa	rds more natural mix				-	spruce/fir.			
Specs: Next S Treatm Accept Regen Other Comm Site Co Propos	<u>: hents:</u> t <u>able_</u> <u>L:</u> Move s hent:	stand towa	rds more natural mix		cruiting	other tree	-	spruce/fir.	4121 - Oak,	Planting	Ν
Specs Next S Treatm Accep Regen Other Comm Site Co Propos 17	i itable table table Move s nent: ondition: sed Start Date 12157017-CC iption Harves	atand towa 10/01/2 2.1	rds more natural mix 1026	ed pine, re	cruiting	other tree Unspeci fied	species.		4121 - Oak, Aspen		Ν
Specs: Next S Treatm Accept Regen Other Comm Site Co Propos 17	i itable itable i Move s ient: ondition: sed Start Date 12157017-CC iption Harves itap	atand towa 10/01/2 2.1	rds more natural mix 026 4130 - Aspen	ed pine, re	cruiting	other tree Unspeci fied	species.			Planting	N
Specs: Next S Treatm Accept Regen Other Comm Site Co Propos <b>17</b> Prescr Specs: Next S Treatm Accept	i table table table i Move s nent: ondition: sed Start Date 12157017-CC iption Harves table Any co	tand towa 10/01/2 2.1 t aspen 4.	rds more natural mix 026 4130 - Aspen	ed pine, re 6 etain all oth	cruiting 45 her trees	other tree Unspeci fied	species.			Planting	Ν
Specs: Next S Treatm Accepi Regen Other Comm Site Co Propos 17 Prescr Specs: Next S Treatm Accepi Regen Other	i table table table i Move s nent: ondition: sed Start Date sed Start Date 12157017-CC iption Harves i table Any co	tand towa 10/01/2 2.1 t aspen 4.	rds more natural mix 1026 4130 - Aspen 6" dbh and larger. Re	ed pine, re 6 etain all oth	cruiting 45 her trees	other tree Unspeci fied	species.			Planting	Ν
Specs: Next S Treatm Accept Regen Other Comm Site Co Propos <b>17</b> Prescr Specs: Next S Treatm Accept Regen Other Comm	i table table table i Move s nent: ondition: sed Start Date sed Start Date 12157017-CC iption Harves i table Any co	tand towa 10/01/2 2.1 t aspen 4.	rds more natural mix 1026 4130 - Aspen 6" dbh and larger. Re	ed pine, re 6 etain all oth	cruiting 45 her trees	other tree Unspeci fied	species.			Planting	Ν

t		Crystal Falls	Mgt. Unit		Repor	t3 1	Freatments		Compartment Year of Entry		DNR SS
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
12	12157012 Crown Thinning	• 41.4 42	2110 - Planted Red Pine	9	66	141- 170	Harvest	Thinning	4122 - Oak, Pine	Planting Record	No
Presc Spec:		to 110-120 B/	A. do not cut associa	ated white	pine or o	oak. Prote	ect all oak and sp	ruce/fir saplings. p	protect/buffer any ve	ernal areas.	
<u>Next</u> Treat	<u>Step</u> ments:										
Rege	<u>n:</u>	xture of red pi	ne, white pine, jack	pine and o	oak is ac	ceptable.					
<u>Other</u> Comr	<u>ment:</u>										
	Condition: osed Start Da	<u>ite:</u> 10/01/20	26								
2	12157002 Plant	· 28.9	4130 - Aspen	6	38	51-80	Planting	Planting (tree species)	4133 - Aspen, Mixed Pine	Cutting Record	No
	<u>ments:</u> <u>ptable</u> aspe										
Other		en, white pine, stand is perfeo		erplanting	- wide o	pen aspei	n with little to no	understory would a	allow enough sunligh	nt for pine gro	owth and
Comr	The	stand is perfec	oak ct candidate for und minimize white pine		- wide o	pen aspei	n with little to no	understory would a	allow enough sunligh	nt for pine gro	owth and
<u>Comr</u> Site C	: The <u>ment:</u> enou Condition:	stand is perfec	ct candidate for und minimize white pine		- wide o	pen aspei	n with little to no	understory would a	allow enough sunligh	nt for pine gro	owth and
Comr Site C Propo 2	The <u>ment:</u> enou <u>Condition:</u> <u>Dosed Start Da</u> 12157002-C	stand is perfect igh canopy to tte: 10/01/20 C 20.3	ct candidate for und minimize white pine 26 4130 - Aspen	weevil.	38	51-80	Harvest	understory would a	allow enough sunligh 4121 - Oak, Aspen	nt for pine gro Planting Record	owth and No
Comr Site C Propo 2	The <u>ment:</u> enou <u>Condition:</u> <u>Desed Start Da</u> 12157002-C	stand is perfect igh canopy to tte: 10/01/20 C 20.3	ct candidate for und minimize white pine 26	weevil.	38	51-80	Harvest		4121 - Oak,	Planting	
Comr Site C Propo 2 Preso Spec: Next 3	The <u>ment:</u> enou <u>Condition:</u> <u>Desed Start Da</u> <b>12157002-C</b> <u>cription</u> Harves:	stand is perfect igh canopy to tte: 10/01/20 C 20.3	ct candidate for und minimize white pine 26 4130 - Aspen	weevil.	38	51-80	Harvest		4121 - Oak,	Planting	
Comr Site C Propo 2 Presc Spec: Spec: Treat Accej Rege	The ment: enou <u>Condition:</u> <u>bsed Start Da</u> <b>12157002-C</b> <u>tription</u> Harves <u>Step</u> ments: <u>btable</u> Any n:	stand is perfecting canopy to the stand is perfective to the standard sta standard standard stand standard standard stand standar	ct candidate for und minimize white pine 26 4130 - Aspen	weevil. 6 Retain all	38 other tre	51-80	Harvest		4121 - Oak,	Planting	
Comr Site C Propo 2 Presc Spec: Next 3 Treati	The ment: enou <u>Condition:</u> <u>Desed Start Da</u> <u>12157002-C</u> <u>ription</u> Harves: <u>Step</u> <u>ments:</u> <u>ptable</u> Any n:	stand is perfecting canopy to the stand is perfective to the standard sta standard standard stand standard standard stand standar	ct candidate for und minimize white pine 26 4130 - Aspen 4.6" dbh and larger.	weevil. 6 Retain all	38 other tre	51-80	Harvest		4121 - Oak,	Planting	

# Approved Treatments:

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6	12157006- Monitor	17.6 4222 - Natural Jack Pine	0	4	Monitoring	Monitoring - Regeneration	4222 - Natural Jack Pine	Planting Record	No
<u>Prescri</u> Specs:									
<u>Next St</u> <u>Treatm</u>									
Accepta Regen:		e.							
<u>Other</u> Comme		to Treat = 100%							
<u>Site Co</u>	ondition:								

S t	C	Crystal Fall	s Mgt. Unit		Repoi	rt 3 <sup>-</sup>	Treatments		Compartme Year of Enti	-	DNR DNR
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
Prop	oosed Start Dat	<u>e:</u> 10/10/2	022								

Total Treatment 0 Acreage Proposed:

Compartment: 157 Year of Entry: 2027



#### Ed Rice: Examiner

## Availability for Management

Total	Acres	Acres Avail	Acres		Dominant Site Conditions
Acres	Available	With Condition	Not Available		5E
333	319	0	14	Aspen	14
26	26	0	0	Bog	
241	241	0	0	Herbaceous Openland	
44	44	0	0	Jack Pine	
13	13	0	0	Oak	
41	41	0	0	Planted Mixed Pines	
252	253	0	0	Red Pine	
20	20	0	0	Treed Bog	
14	14	0	0	Upland Mixed Forest	
985	970		14	Total Forested Acres	14
	98%		1%	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.

Si No	te Dominant Site o. Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	5E: Long-Term Retention	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

#### 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

### Report 7 – Stands

				Size De	monty	Acres	Stand Age E	Analige	Managed S	lie	General Comments
2	4130	- Aspen		Poletimb	er Well	49.2	38	51-80	N/A	N N	about a pure aspen stand. widely scattered pin oak and w pine. little to
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	Density	Avg. Height	Size	no understory - wide open. pockets of larger diameter aspen scattered 11" dbh
	Quaking Aspen	90	Seedling	7	38	Wh	ite Pine	Low	5 - 10 feet	5 - 10 feet	
	Northern Pin Oak	5		11		Northe	ern Pin Oak	Low	5 - 10 feet	5 - 10 feet	*
	Jack Pine	5		10		Whit	e Spruce	Low	10 - 20 feet	10 - 20 feet	*
						Hazelnu	t (American)	Medium	5 - 10 feet	5 - 10 feet	
3	4130	- Aspen		Sapling	g Well	6.4	25	Immature	N/A	N N	very scattered aspen 4" dbh
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	100	Log	3	25	Hazelnu	t (American)	High	5 - 10 feet	5 - 10 feet	-
				,		Northe	ern Pin Oak	Low	5 - 10 feet	5 - 10 feet	
4	4311 - Pin	e, Aspen M	ix	Sapling	g Well	3.1	28	Immature	N/A	N N	good mix of aspen and j pine regen. small, semi open areas throughou the stand. scattered r pine seedlings/saplings
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	Density	Avg. Height	Size	The stand. scattered i pine seedlings/sapilings
	Red Pine	5		18		Hazelnu	t (American)	High	5 - 10 feet	5 - 10 feet	
	Quaking Aspen	50	Log	3	28	Re	ed Pine	Low	5 - 10 feet	5 - 10 feet	
	White Pine	5	Log	3							
	Jack Pine	40	Log	2							
_											
5	42110 - Pla	nted Red Pi	ine	Poletimb	er Well	30.2	66	111-140	N/A	N	pockets of A2/3 less than 1" dbh where aspen was removed in prior c
5	42110 - Pla Canopy Species		ine Size Class		oer Well I Age		66 hopy Species	111-140 Density	N/A Avg. Height	Size	pockets of A2/3 less than 1" dbh where aspen was removed in prior c
5					I Age	Sub-Car					pockets of A2/3 less than 1" dbh where aspen was removed in prior c
5	Canopy Species	% Cover		DBH	I Age	Sub-Car Hazelnu	nopy Species	Density	Avg. Height	Size	pockets of A2/3 less than 1" dbh where aspen was removed in prior c
5	Canopy Species	% Cover		DBH	I Age	Sub-Car Hazelnu Re	<b>hopy Species</b> t (American)	Density Low	Avg. Height 5 - 10 feet	<b>Size</b> 5 - 10 feet	pockets of A2/3 less than 1" dbh where aspen was removed in prior c
5	Canopy Species	% Cover		DBH	I Age	Sub-Car Hazelnu Re Whit	t (American) d Oak	Density Low Low	<b>Avg. Height</b> 5 - 10 feet 5 - 10 feet	<b>Size</b> 5 - 10 feet 5 - 10 feet	pockets of A2/3 less than 1" dbh where aspen was removed in prior c
5 6	Canopy Species Red Pine	% Cover	Size Class	DBH	<b>Age</b> 66	Sub-Car Hazelnu Re Whit	t (American) d Oak e Spruce	DensityLowLowLow	Avg. Height 5 - 10 feet 5 - 10 feet >20 feet	<b>Size</b> 5 - 10 feet 5 - 10 feet >20 feet	S end of stand has much higher stocking of above species. mid and
	Canopy Species Red Pine	% Cover 100	Size Class	<b>DBH</b> 10	<b>Age</b> 66	Sub-Car Hazelnu Re Whit Quak 17.7	t (American) d Oak e Spruce ing Aspen	DensityLowLowLow	Avg. Height 5 - 10 feet 5 - 10 feet >20 feet	Size 5 - 10 feet 5 - 10 feet >20 feet < 5 feet Size	S end of stand has much higher stocking of above species. mid and
	Canopy Species Red Pine	% Cover 100	Size Class	<b>DBH</b> 10	<b>Age</b> 66	Sub-Car Hazelnu Re Whit Quak 17.7 Sub-Car	t (American) ed Oak e Spruce ing Aspen 4	DensityLowLowLowMedium	Avg. Height           5 - 10 feet           5 - 10 feet           >20 feet           < 5 feet	Size           5 - 10 feet           5 - 10 feet           >20 feet           < 5 feet	S end of stand has much higher stocking of above species. mid and north of stand has only occasional aspen clones. stand is mainly semi
	Canopy Species Red Pine	% Cover 100	Size Class	<b>DBH</b> 10	<b>Age</b> 66	Sub-Car Hazelnu Re Whit Quak 17.7 Sub-Car Quak	t (American) ad Oak e Spruce ing Aspen 4 hopy Species	Density Low Low Low Medium Density	Avg. Height           5 - 10 feet           5 - 10 feet           >20 feet           < 5 feet	Size 5 - 10 feet 5 - 10 feet >20 feet < 5 feet Size	S end of stand has much higher stocking of above species. mid and north of stand has only occasional aspen clones. stand is mainly semi
	Canopy Species Red Pine	% Cover 100	Size Class	<b>DBH</b> 10	<b>Age</b> 66	Sub-Car Hazelnu Re Whit Quak 17.7 Sub-Car Quak Northe	A copy Species t (American) ed Oak e Spruce ing Aspen 4 hopy Species ing Aspen	Density Low Low Medium Density Low Low Low	Avg. Height           5 - 10 feet           5 - 10 feet           >20 feet           < 5 feet	Size           5 - 10 feet           5 - 10 feet           >20 feet           < 5 feet	S end of stand has much higher stocking of above species. mid and north of stand has only occasional aspen clones. stand is mainly semi
6	Canopy Species Red Pine 4222 - Nate	% Cover 100	Size Class	DBH 10 Unspe	A Age 66 ecifed	Sub-Car Hazelnu Re Whit Quak 17.7 Sub-Car Quak Northe	t (American) ed Oak e Spruce ing Aspen 4 hopy Species ing Aspen rrn Pin Oak	Density Low Low Low Medium Density Low Low Low Low Low Low	Avg. Height 5 - 10 feet 5 - 10 feet >20 feet < 5 feet Avg. Height 5 - 10 feet 10 - 20 feet	Size 5 - 10 feet 5 - 10 feet >20 feet < 5 feet Size 5 - 10 feet 10 - 20 feet 10 - 20 feet	S end of stand has much higher stocking of above species. mid and north of stand has only occasional aspen clones. stand is mainly semi open to open upland shrub at this time aspen 3-7" dbh. very scattered pin oak poletimber. scattered pin oak
6	Canopy Species Red Pine 4222 - Nate	% Cover	Size Class	DBH 10 Unspe	Age 66 ecifed	Sub-Car Hazelnu Re Whit Quak 17.7 Sub-Car Quak Northe Re 77.2	A comparation of the second se	Density Low Low Low Medium Density Low Low Low Low Low Low	Avg. Height           5 - 10 feet           5 - 10 feet           >20 feet           < 5 feet	Size 5 - 10 feet 5 - 10 feet >20 feet < 5 feet Size 5 - 10 feet 10 - 20 feet 10 - 20 feet	S end of stand has much higher stocking of above species. mid and north of stand has only occasional aspen clones. stand is mainly semi open to open upland shrub at this time
	Canopy Species Red Pine 4222 - Naturation 4223 - Naturation	% Cover       100       ural Jack Pin       - Aspen	Size Class	DBH 10 Unspe Sapling DBH 6	A Age 66 ecifed	Sub-Car Hazelnu Re Whit Quak 17.7 Sub-Car Quak Northe Re 77.2 Sub-Car	An	Density Low Low Medium Density Low Low Low Low Low Low Low	Avg. Height 5 - 10 feet 5 - 10 feet >20 feet < 5 feet Avg. Height 5 - 10 feet 10 - 20 feet 10 - 20 feet N/A	Size 5 - 10 feet 5 - 10 feet >20 feet < 5 feet Size 5 - 10 feet 10 - 20 feet 10 - 20 feet	S end of stand has much higher stocking of above species. mid and north of stand has only occasional aspen clones. stand is mainly semi open to open upland shrub at this time aspen 3-7" dbh. very scattered pin oak poletimber. scattered pin oak
6	Canopy Species Red Pine 4222 - Nate 4230 4130 Canopy Species	% Cover       100       ural Jack Pin       - Aspen       % Cover	Size Class	DBH 10 Unspe Sapling DBH	H Age 66 ecifed g Well H Age	Sub-Car Hazelnu Re Whit Quak 17.7 Sub-Car Quak Northe Re 77.2 Sub-Car Jac	A compare a comp	Density Low Low Medium Density Low Low Low Low Low Low Density Density	Avg. Height 5 - 10 feet 5 - 10 feet >20 feet < 5 feet Avg. Height 5 - 10 feet 10 - 20 feet 10 - 20 feet N/A Avg. Height	Size 5 - 10 feet 5 - 10 feet >20 feet < 5 feet Size 5 - 10 feet 10 - 20 feet 10 - 20 feet Size	S end of stand has much higher stocking of above species. mid and north of stand has only occasional aspen clones. stand is mainly semi open to open upland shrub at this time aspen 3-7" dbh. very scattered pin oak poletimber. scattered pin oak
6	Canopy Species Red Pine 4222 - Nate 4222 - Nate 4130 Canopy Species Quaking Aspen	% Cover       100       ural Jack Pin       - Aspen       % Cover       95	Size Class	DBH 10 Unspe Sapling DBH 6	H Age 66 ecifed g Well H Age	Sub-Car Hazelnu Re Whit Quak 17.7 Sub-Car Quak Northe Re 77.2 Sub-Car Jac Hazelnu	A compare state of the second state of the sec	Density Low Low Medium Density Density Low Low Density Density Low Low Low Low Low	Avg. Height 5 - 10 feet 5 - 10 feet >20 feet < 5 feet Avg. Height 5 - 10 feet 10 - 20 feet 10 - 20 feet N/A Avg. Height 5 - 10 feet	Size           5 - 10 feet           5 - 10 feet           >20 feet           < 5 feet	aspen 3-7" dbh. very scattered pin oak poletimber. scattered pin oak

### Report 7 – Stands

Compartment: 157 Year of Entry: 2027 DIR MATURAL MASOURIES

Stanc	Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	ite	General Comments
9	42110 - Pla	nted Red P	line	Sawtimbe	er Well	5.9	67	81-110	N/A	۱.	good red pine saplings 3-20 feet tall throughout. good pin oak saplings 3-20 feet tall throughout.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	20 feet tall. East end is heavier to red pine. Jack pine mainly along field edge and transitions into the purer red pine.
	Jack Pine	20		10	55	Northe	ern Pin Oak	High	5 - 10 feet	5 - 10 feet	
	Red Pine	80		14	67	R	ed Pine	Medium	< 5 feet	< 5 feet	
						Che	erry (spp.)	Medium	5 - 10 feet	5 - 10 feet	
10	42140 - Plar			Poletimbe	er Well	40.7	75	81-110	N/A	ι.	good mix of j pine saplings in understory with small diameter j pine poletimber 4-5" dbh. small pockets of aspen 3-5" dbh in east end.
	Canopy Species		Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	scattered r pine seedlings
	Jack Pine	45	Sapling	5			ed Pine	Low	< 5 feet	< 5 feet	
	Red Pine	55		10	75		king Aspen	Low	>20 feet	>20 feet	+
						Ja	ick Pine	High	>20 feet	>20 feet	
11	42110 - Pla	nted Red P	line	Poletimbe	er Well	40.4	40.4 64 111-		N/A	۱.	pin oak seedling/saplings throughout stand, noticeably more heavily
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	stocked nearer to edges
	Red Pine	100		11	64	Northe	ern Pin Oak	Low	5 - 10 feet	5 - 10 feet	
						R	ed Pine	Low	< 5 feet	< 5 feet	
12	42110 - Pla	nted Red P	line	Poletimbe	er Well	41.5	66	141-170	N/A	۱.	r pine 6-14" dbh. scattered pin oak and occasional w spruce
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	-
	Northern Pin Oak	5		10		Whi	te Spruce	Low	5 - 10 feet	5 - 10 feet	
	Red Pine	95		12	66						
13	42110 - Pla	nted Red P	line	Sawtimber Well		35.5 64 1		111-140	N/A		j pine saplings established in canopy gaps. fairly moderate pin oak $\neg$ seedlings in east end
	Canopy Species		Size Class		-		nopy Species	Density	Avg. Height	Size	
	Red Pine	100		12	64		ern Pin Oak	Low	5 - 10 feet	5 - 10 feet	-
							ut (American)	Low	5 - 10 feet	5 - 10 feet	-
						Ja	ick Pine	Medium	10 - 20 feet	10 - 20 feet	
14	4131 - <i>A</i>	Aspen, Oak		Sapling	Well	19.5	27	Jnspecified	N/A	١	low quality aspen with scattered red pine. jack pine is in small pockets 6 $_{\rm T}$ 14" dbh.semi open inclusions. A4A5A3
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Jack Pine	10	Seedling	9		Che	erry (spp.)	Low	5 - 10 feet	5 - 10 feet	_
	Quaking Aspen	65	Log	3	27	Hazelnı	ut (American)	Medium	5 - 10 feet	5 - 10 feet	
	Northern Pin Oak	20	Log	1							
	Red Pine	5		18							
15	4130	- Aspen		Poletimbe	er Well	28.3	36	Jnspecified	N/A	۱.	very low quality aspen - much of stand is semi open. scattered r pine $_{\rm T}$ pine seedling/saplings 3-10" tall.
	Canopy Species		Size Class		•		nopy Species	-	Avg. Height	Size	
	Quaking Aspen	95	Sapling	5	36		nite Pine	Low	10 - 20 feet	10 - 20 feet	-
	White Spruce	5	Sapling	5			ut (American)	Medium	5 - 10 feet	5 - 10 feet	+
							ern Pin Oak	Low	5 - 10 feet	5 - 10 feet	+
						R	ed Pine	Low	5 - 10 feet	5 - 10 feet	

### Report 7 – Stands



Stand	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age	BA Range	Managed S	lite	General Comments
16	4125 - Blac	ck, N. Pin O	ak	Unspe		12.8	4	Immature	N/A	A	semi open - previous cut produced oak stump sprouting . residual pin $_{\rm I}$ oak 10 BA, 7 inch average dbh
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Specie	s Density	Avg. Height	Size	
	Northern Pin Oak	100	Log	1	4	Northe	ern Pin Oak	Low	>20 feet	>20 feet	
						Haze	lnut (Spp.)	Medium	5 - 10 feet	5 - 10 feet	
17	4130	- Aspen		Poletimb	er Well	43.3	45	Unspecified	N/A	A	small inclusion of j pine in very SW of stand 4-7" dbh with scattered, wolfy 15" diameter trees. very scattered spruce/fir 4-6" dbh. small
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Specie	s Density	Avg. Height	Size	pockets of aspen 10-14" dbh throughout
	Northern Pin Oak	5	Log	3		Northe	ern Pin Oak	Low	10 - 20 feet	10 - 20 feet	
	Jack Pine	5		10		Hazelnu	t (American)	High	5 - 10 feet	5 - 10 feet	
	Quaking Aspen	90	Seedling	6	45	Pin	Cherry	Medium	10 - 20 feet	10 - 20 feet	
18	6224	Treed Bog	P	oletimbe	r Medium	า 20.0			Nc	)	treed bog, stunted small b spruce and tamarack
						Sub-Car	nopy Specie	s Density	Avg. Height	Size	
						Labr	ador Tea	Medium	< 5 feet	< 5 feet	
						Blac	k Spruce	Medium	10 - 20 feet	10 - 20 feet	
						Та	marack	Medium	10 - 20 feet	10 - 20 feet	
						Wil	ow spp.	Medium	5 - 10 feet	5 - 10 feet	
19	42110 - Pla	nted Red P	ine	Sawtimb	er Well	48.9	64	141-170	N/A	Ą	very scattered pin oak seedling/saplings and spruce/fir
	Canopy Species	% Cover	Size Class	DBH	I Age						
	Red Pine	100		9	64						
20	4130	- Aspen		Poletimb	er Well	10.3	40	51-80	N/A	Ą	aspen 4-11" dbh. low quality r maple 7-12"dbh throughout
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Specie	s Density	Avg. Height	Size	-
	Quaking Aspen	80	Seedling	7	40	Hazelnu	t (American)	High	5 - 10 feet	5 - 10 feet	
	Red Maple	20		11							
21	310 - Herbac	ceous Open	land	Sapling	g Well	241.3			Nc	)	shrub opening with scattered pin cherry, aspen 12-15" dbh, and widel
						Sub-Car	nopy Specie	s Density	Avg. Height	Size	scattered pin oak
						Che	rry (spp.)	Low	5 - 10 feet	5 - 10 feet	~ 
						Northe	ern Pin Oak	Low	>20 feet	>20 feet	
						Quak	ing Aspen	Low	>20 feet	>20 feet	
22	4130	- Aspen		Sapling I		11.2	16	Unspecified	N/A	4	_
	Canopy Species		Size Class		l Age		nopy Specie		Avg. Height	Size	+
	Northern Pin Oak	5	Log	1		Hazelnu	t (American)	Low	5 - 10 feet	5 - 10 feet	
	Jack Pine	5	Sapling	6							
	Quaking Aspen	90	Log	2	16						
23	4130	- Aspen		Saplinę	-	8.0	16	Unspecified	N/A	A	very scattered aspen 4-5" dbh just moving into poletimber size class. $_{\rm T}$ A3A4
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Specie	s Density	Avg. Height	Size	
	Quaking Aspen	100	Log	3	16	Hazelnu	t (American)	Low	5 - 10 feet	5 - 10 feet	

### Report 7 – Stands

DNR MILLINGAT
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Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
25	4130	- Aspen		Sapling	Well	8.8	48 L	Inspecified	N/A	A	aspen 7-14" dbh. scattered white and red pine seedlings. good stand for
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	retention - one of the last older aged aspen stand along field edge
	White Pine	5		18		Wł	nite Pine	Medium	5 - 10 feet	5 - 10 feet	
	Red Pine	5		18		Northe	ern Pin Oak	High	10 - 20 feet	10 - 20 feet	
	Quaking Aspen	90		10	48	Hazelnu	ıt (American)	High	5 - 10 feet	5 - 10 feet	
26	4311 - Pin	e, Aspen M	ix	Sapling	Well	11.3	20	51-80	N/A	A	low quality aspen 4-7" dbh, 1-2 sticks tall. ease end is heavier to jack
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	pine
	Jack Pine	55	Sapling	6	20	Northe	ern Pin Oak	Medium	5 - 10 feet	5 - 10 feet	-
	Quaking Aspen	45	Sapling	6	20	Hazelnı	ıt (American)	High	5 - 10 feet	5 - 10 feet	
27	4130	- Aspen		Sapling	Well	8.1	26 L	Inspecified	N/A	A	component of larger aspen 10-12" dbh along field edge
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	95	Sapling	6	26	Ja	ck Pine	Low	5 - 10 feet	5 - 10 feet	-
	Northern Pin Oak	5	Seedling	8		Hazelnu	ıt (American)	High	5 - 10 feet	5 - 10 feet	
28	4130	- Aspen	Sapling Well			10.8	10.8 37 Unspecified		N/A		N end has small inclusion of j pine small diameter poletimber 3-6" dbh. NW end has mature j pine/aspen inclusion with highly stocked pin oak
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	saplings 5-10' tall adjacent to vernal area.
	Jack Pine	5	Pole	4		Northe	ern Pin Oak	Medium		5 - 10 feet	_
	Quaking Aspen	90	Sapling	6	37	Hazelnu	ıt (American)	High	5 - 10 feet	5 - 10 feet	
	Northern Pin Oak	5	Seedling	7							
29	4130	- Aspen	:	Sapling N	/ledium	10.8	10.8 16 Unspecified		N/A		A3/2 with interspersed small openings. east end is semi open to open $\neg$ beaver have cut off much of the aspen regen from prior harvest. resid
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	aspen 1-6" dbh with scattered j pine 14-15" dbh
	Northern Pin Oak	5	Log	1		Che	rry (spp.)	Low	5 - 10 feet	5 - 10 feet	-
	Red Pine	5	Log	2		Hazelnu	ıt (American)	High	5 - 10 feet	5 - 10 feet	
	Quaking Aspen	85	Log	2	16						
	Pin Cherry	5	Log	2							
31	42110 - Pla	nted Red P	ine	Sawtimber Well		8.5	8.5 75 81-11		10 N/A		good r pine/pine oak regen throughout. highly stocked pin oak
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	canopy openings
	Red Pine	100		11	75	Northe	ern Pin Oak	Medium	5 - 10 feet	5 - 10 feet	
						Re	ed Pine	Medium	< 5 feet	< 5 feet	
32	42220 - Natural Jack Pine			Poletimber Well		26.5	56 L	Inspecified	N/A	A	j pine 4-9" dbh, 5-6 sticks tall. scattered spruce/cherry saplings
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	-
	Jack Pine	95	Seedling	8	56	Ba	lsam Fir	Low	5 - 10 feet	5 - 10 feet	-
	Red Pine	5		12		Ja	ck Pine	Low	10 - 20 feet	10 - 20 feet	
33	6225	5 - Bog		Unspe	cifed	19.3			Nc	)	

	Cryst	al Falls Mg	t. Unit				Re	port 7 – Sta	ands		Compartment: 157 Year of Entry: 2027		
Stand	Level 4 Cover Type 42110 - Planted Red Pine			Size De	ensity	Acres	Stand Age	BA Range	Managed Site		General Comments	A. MICHIGAN	
34				Sawtimber Well		41.6	64	141-170	N/A		small 50-60 year old j pine inclusion in south center of stand.		
	Canopy Species	% Cover	Size Class	DBH Age		Sub-Ca	nopy Specie	s Density	Avg. Height	Size	]		
	Red Pine	95		9	64	Ja	ack Pine	Low	5 - 10 feet	5 - 10 feet			
	Jack Pine	5	Seedling	9	55						-		
35	4130 - Aspen			Sapling	g Well	46.3	6	Immature	N/A	A .	small inclusions of j pine seedlings in more open areas		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size			
	Northern Pin Oak	5	Seedling	7		North	ern Pin Oak	Medium	< 5 feet	< 5 feet			
	Quaking Aspen	95	Log	1	6	Hazeln	ut (American)	Medium	5 - 10 feet	5 - 10 feet			

Report 7 – Stands

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