

# **Compartment Review Presentation**

**Crystal Falls Forest Management Unit** 

Compartment 12029 Entry Year 2024 Acreage: 2,472

**County Dickinson** 

Management Area: Ralph Ground Moraine

Stand Examiner: Deb Goupell

**Legal Description:** 

T43N R27W Sec 19, 30, 31 T43N R28W Sec 23-26, 36, 36

#### **Identified Planning Goals:**

This compartment has a near equal amount of upland and lowland. About one-third of the compartment is aspen, which does make up the greatest cover type in this compartment. Management of all stands is to balance age class distribution and allow best suited species to grow on best suited sites while promoting sustainable timber production, and enhancing and protecting wildlife habitat. Hardwood management goals are to put growth on the best trees in place by removing crown competition and selectively harvest on an alternating 20 year rotation.

#### Soil and topography:

The majority of the upland is dominated by Pemene fine sandy loam, a well drained soil found on level to rolling hills, or Emmet fine sandy loam, also a well drained soil. Lowland soils are Carbondale and Cathro mucks which are very poorly drained soils, found on low flats and depressions.

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

The compartment is fairly contiguous State land, interspersed with private. Some State land adjoins the compartment on most sides as does private ownership. The area is heavily used by loggers, hunters, fishermen, campers, seasonal residents, trappers, general recreationists.

## **Unique Natural Features:**

Stafford Creek, Hintz Lake and the Ford River.

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

None identified

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

Deer wintering area.

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

This compartment contains Stafford Creek and the Ford River. Stafford Creek and the Ford River are designated Type 1 trout streams less than 50' in width. 300' buffers are recommended for the Ford River and Stafford Creek in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, 100' plus 5' per 1% increase in slope; buffers are recommended to protect these areas in accordance with Best Management Practices.

#### Wildlife Habitat Considerations:

## Mineral Resource and Development Concerns and/or Restrictions

No known potential exists for commercial oil & gas production in this part of the state. The state-owned Buckler Road sand/gravel pit is the nearest known active source of aggregate and is three miles to the northeast. There is some good potential for sand & gravel within the compartment on the upland drumlins. There has been limited ground-based metallic mineral exploration in this area, and the nearest past production is more than six miles to the southwest. A single core sample is documented to have been collected from Sec 26 associated with a past metallic mineral lease, but details are not currently available. Potential for metallic and critical minerals beneath the compartment is unknown but is considered low at this time. No current state mineral leasing activity exists in the compartment or the surrounding area. The State does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, the surface owner must provide the owner of the mineral rights reasonable access to the surface for mineral exploration and development.

#### **Vehicle Access:**

County Road 426 is the primary access along the north and east; additional access is via unimproved two-track roads. Portions of the State land in this compartment will need to be accessed via private property.

## **Survey Needs:**

Several will be needed.

## **Recreational Facilities and Opportunities:**

Hunting, camping, fishing, trapping, hiking, canoeing.

#### **Fire Protection:**

Felch protection area. Access to most upland stands is fair, access to some swamp types would be difficult.

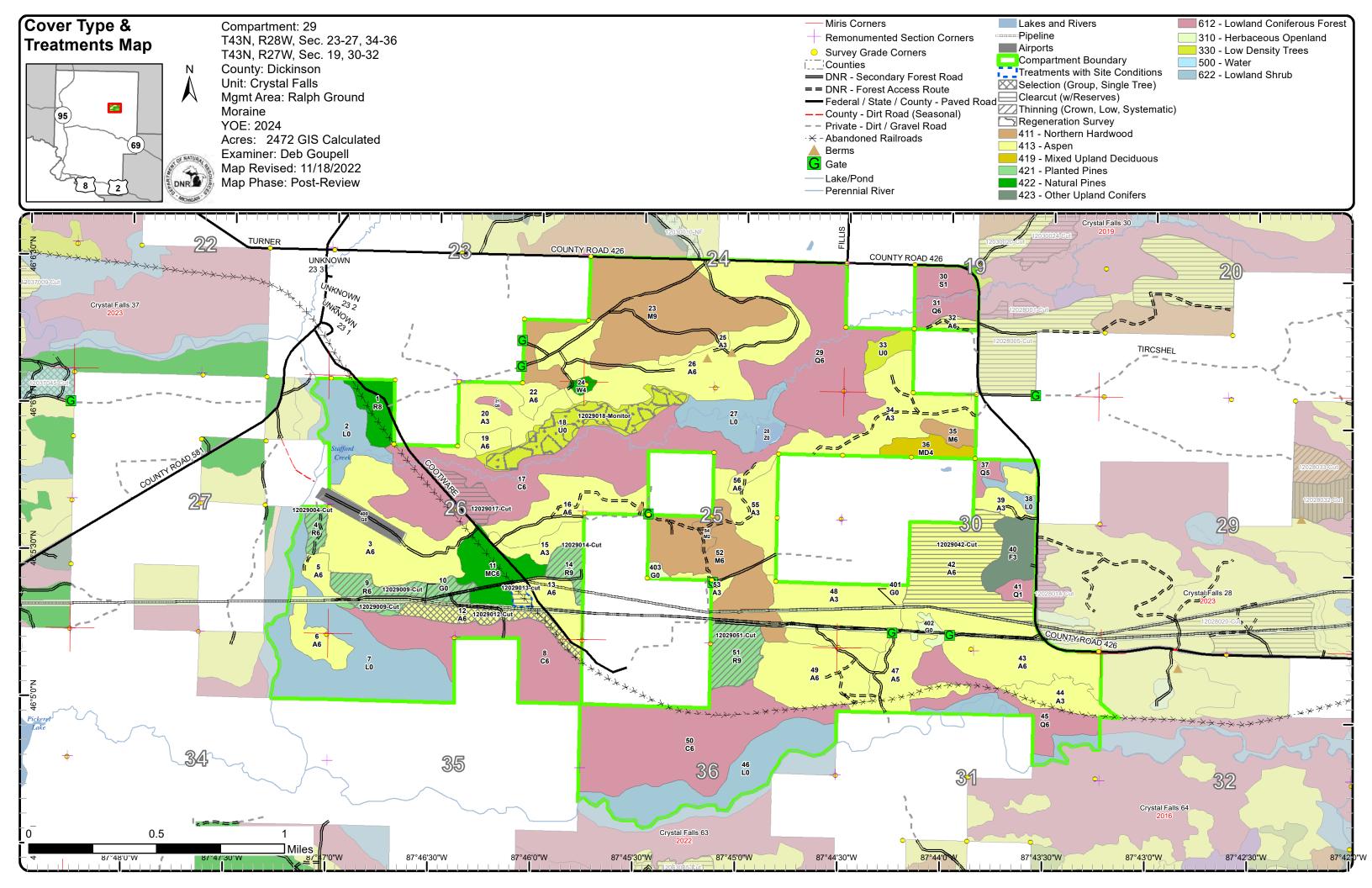
## **Additional Compartment Information:**

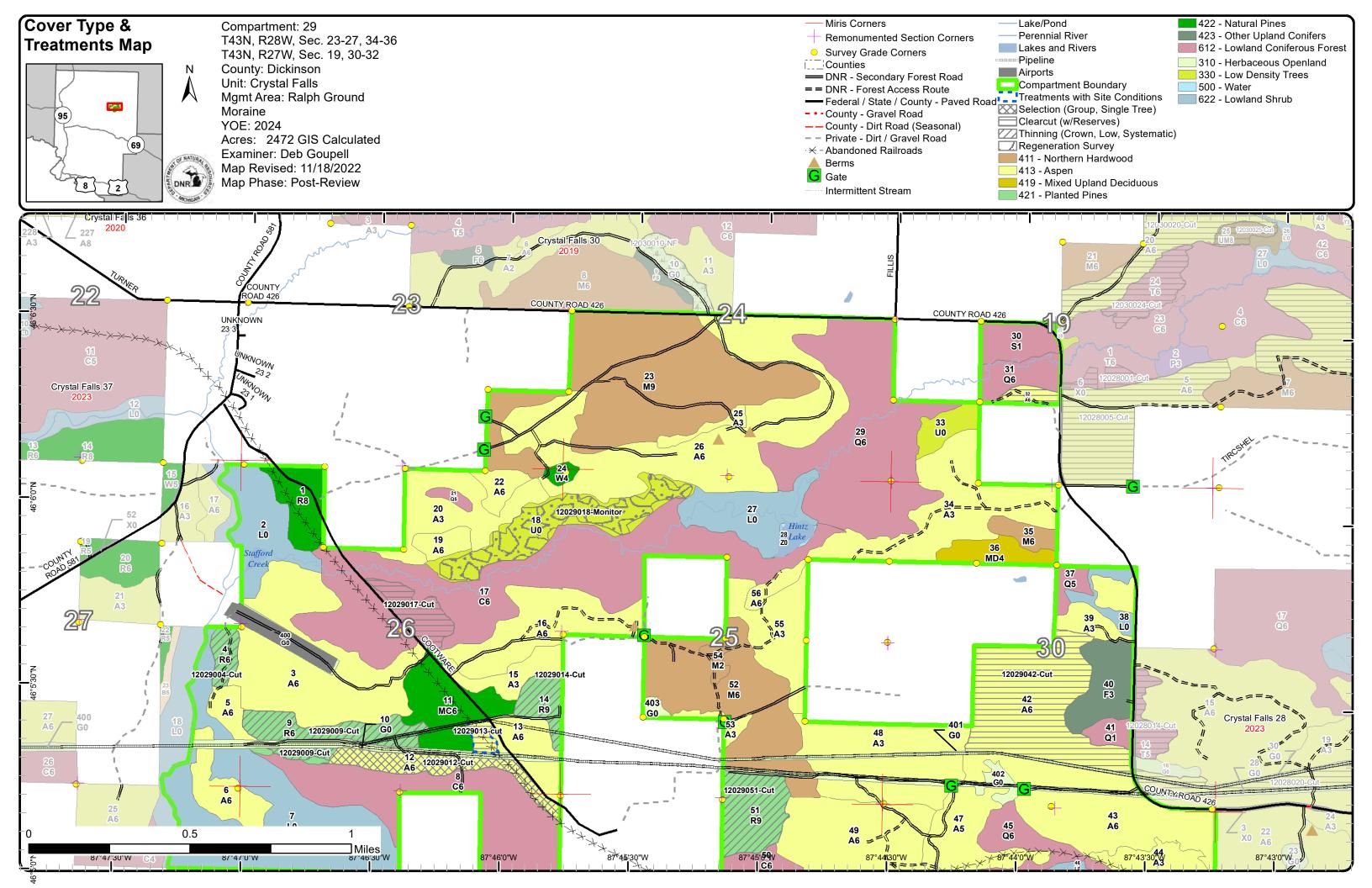
## The following reports from the Inventory are attached:

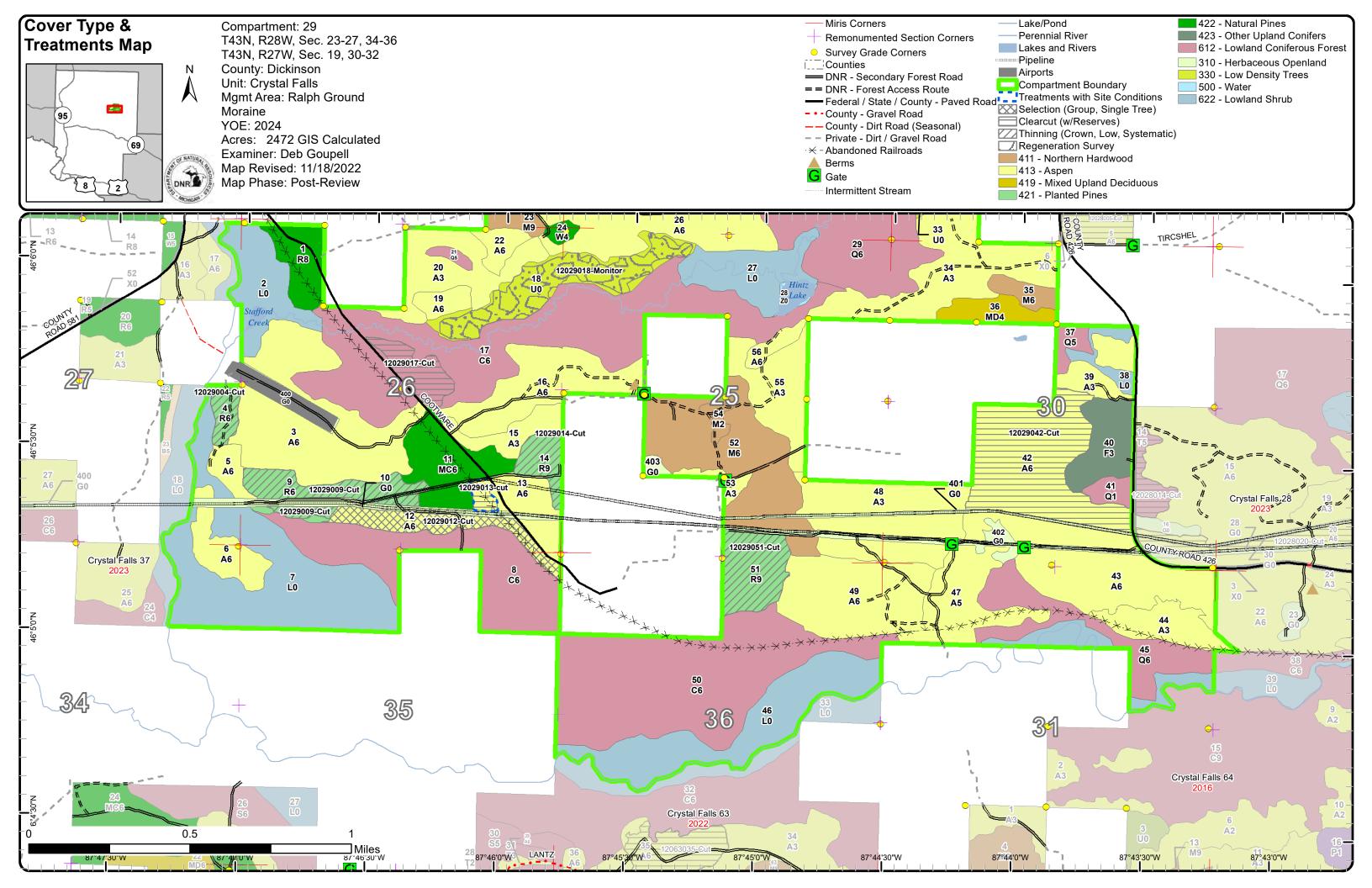
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

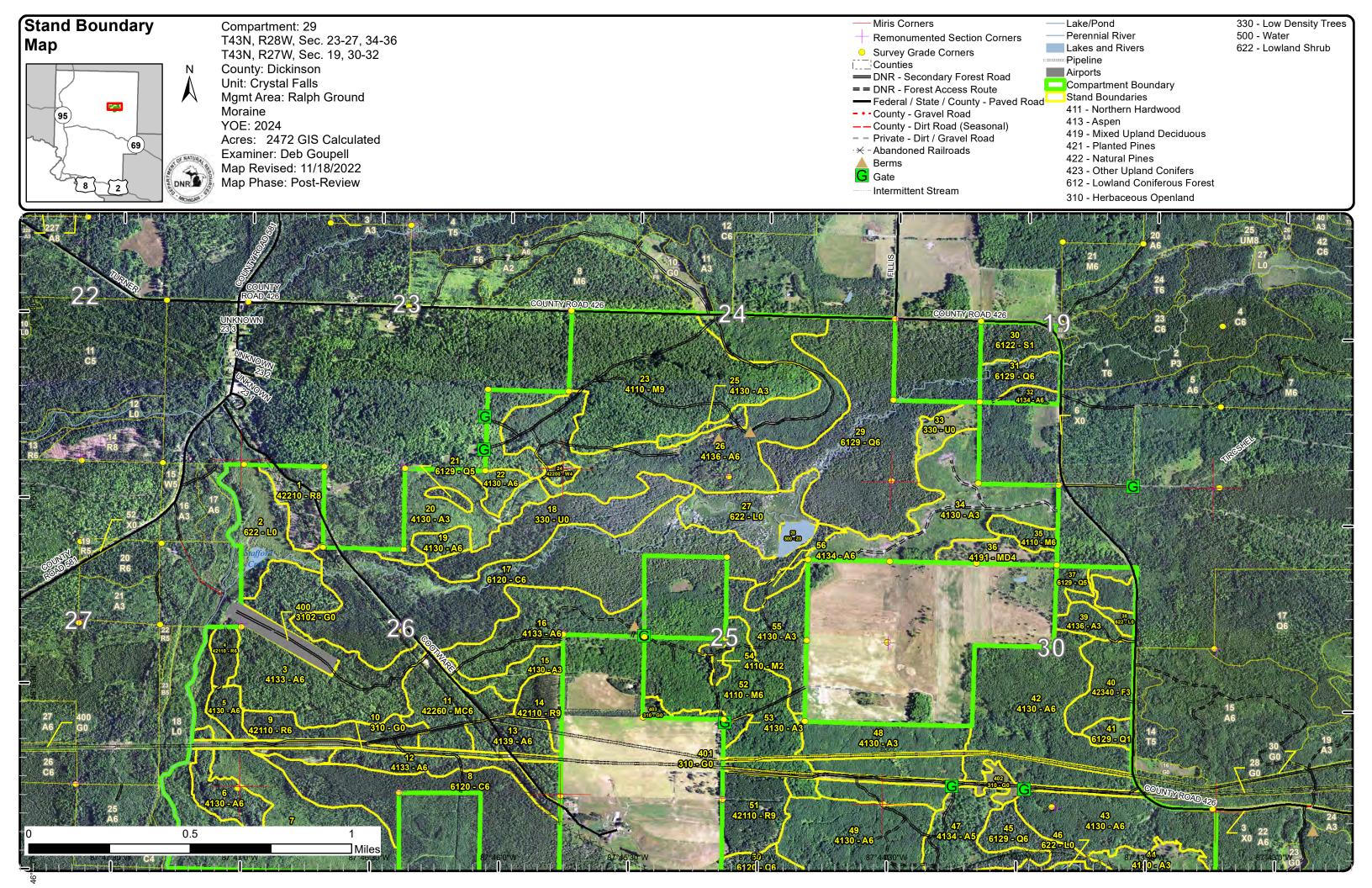
The following information is displayed, where pertinent, on the attached compartment maps:

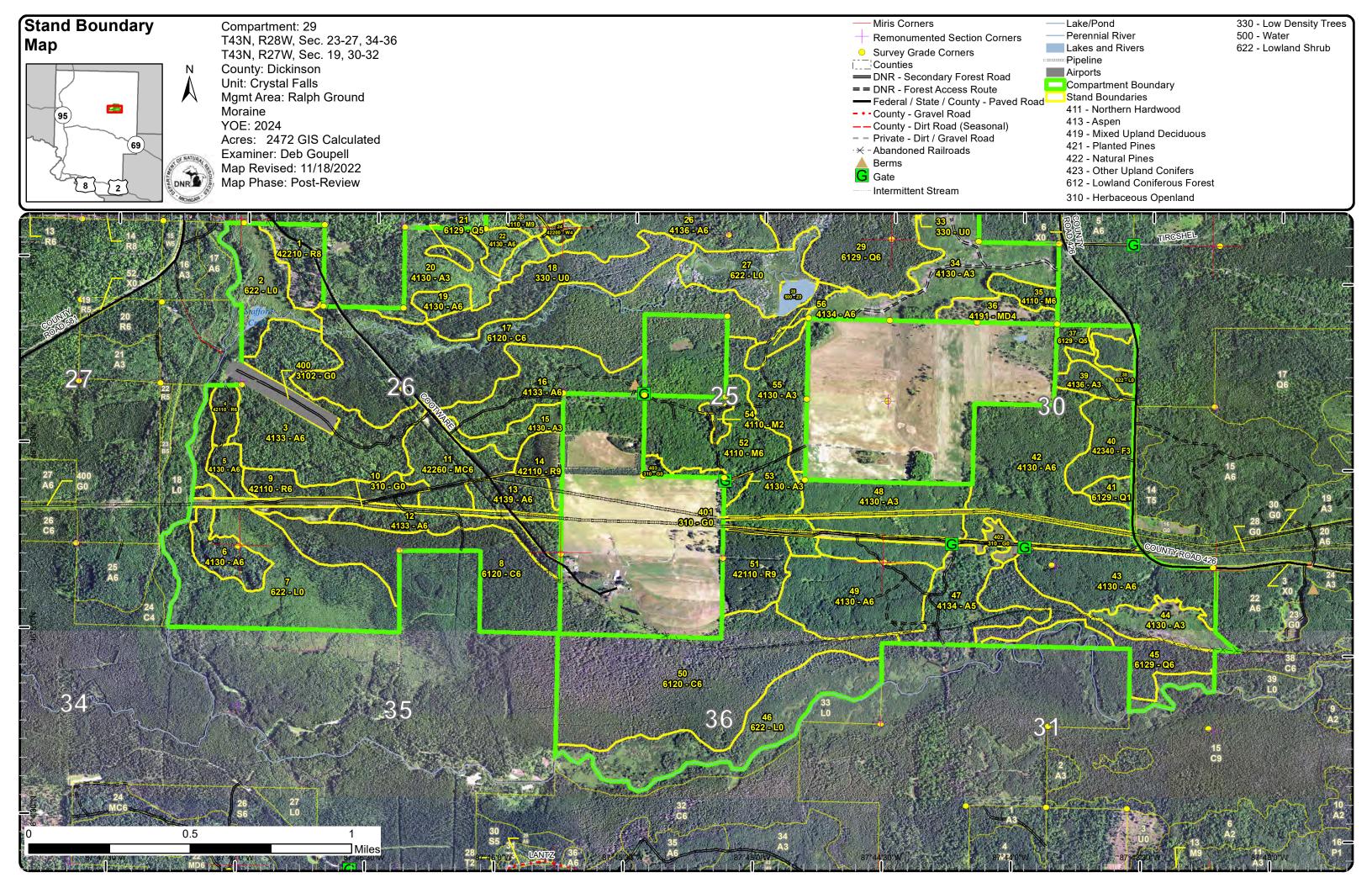
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

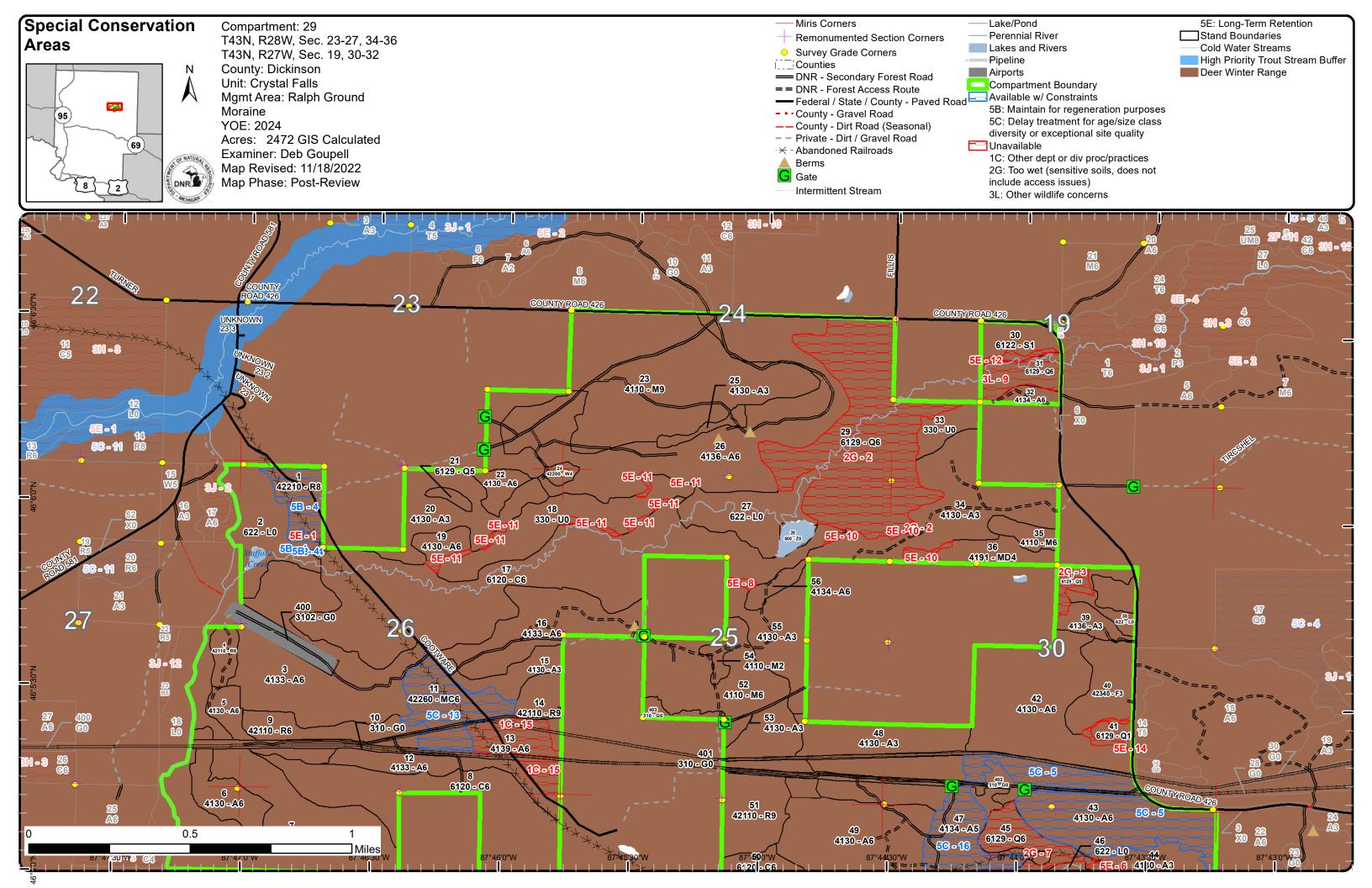


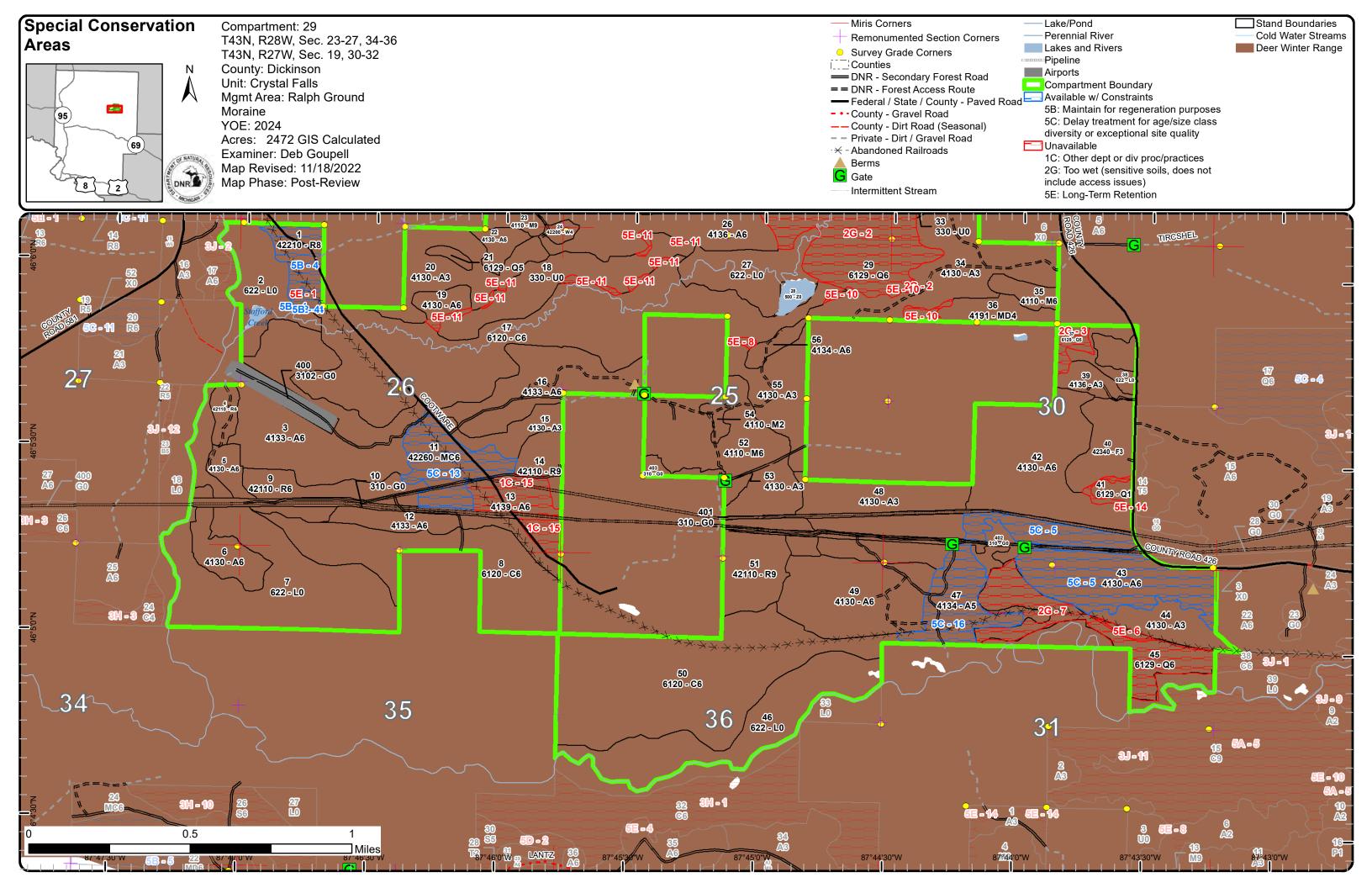












Crystal Falls Mgt. Unit Deb Goupell: Examiner



#### Age Class

	Į de	S. S	\$ / Q	\$ \ \$		3 / 6		3/8		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		g day	70 12 V				84 / E	S July	TO TO
Aspen	0	148	123	196	83	271	90	48	0	0	0	0	0	0	0	0	0	0	958
Cedar	0	0	0	0	0	0	0	0	0	0	244	185	0	0	0	0	0	0	429
Herbaceous Openland	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
Low-Density Trees	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
Lowland Conifers	0	7	0	0	0	0	0	0	3	0	178	24	0	0	0	0	0	0	212
Lowland Shrub	294	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	294
Lowland Spruce/Fir	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Mixed Upland Deciduous	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	15
Natural Mixed Pines	0	0	0	0	0	0	0	36	0	0	0	0	0	0	0	0	0	0	36
Northern Hardwood	0	0	4	0	0	0	0	0	0	0	247	0	0	0	0	0	0	0	251
Red Pine	0	0	0	0	0	0	0	81	0	0	22	0	0	0	0	0	0	0	103
Upland Spruce/Fir	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Water	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
White Pine	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	419	172	127	196	110	275	105	165	3	0	691	209	0	0	0	0	0	0	2471



## **Report 2 – Treatment Summary**

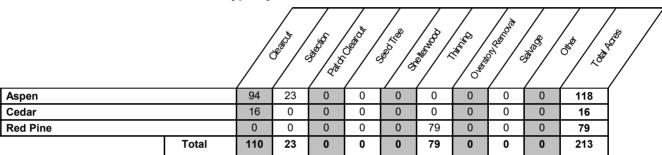
# Crystal Falls Mgt. Unit Year of Entry: 2024

#### **Acres of Harvest**

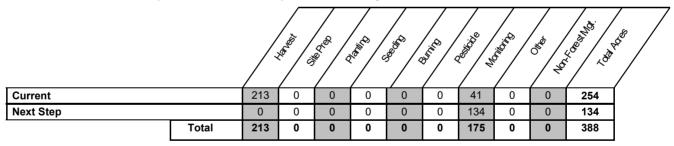
Compartment 29
Total Compartment Acres: 2,472

Commercial Harvest - 209 Harvests with Site Condition - 4 Next Step Harvest - 0 Habitat Cut - 0

## **Cover Type by Harvest Method**



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



Crystal Falls Mgt. Unit

Report 3 -- Treatments

Compartment: 29 Year of Entry: 2024 OF NATURAL DING

t a n

S

d

Treatment Name Acres

Stand CoverType

Size Density Stand Age

BA Range Treatment Type Treatment Method Cover Type Objective Age Structure Habitat Cut

### **Approved Treatments:**

4 12029004-Cut 8.5 42110 - Planted Poletimber 67 111- Harvest Crown Thinning 4211 - Planted Even-Aged No Red Pine Well 140 Red Pine

Prescription Thin to 100 BA

Specs:

Next Step Treatments:

Acceptable

Regen: Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2023

9 12029009-Cut 27.5 42110 - Planted Poletimber 67 111- Harvest Crown Thinning 4211 - Planted Even-Aged No Red Pine Well 140 Red Pine

Prescription Thin to 100 BA

Specs:

Next Step Treatments:

Acceptable Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2023

12 12029012-Cut 23.2 4133 - Aspen, Poletimber 66 81-110 Harvest Group Selection 429 - Mixed Even-Aged No Mixed Pine Well Upland Conifers

Prescription Remove all non-pine stems 2" and greater. Summer cut is preferred for extra scarification which will encourage pine/conifer. Cedar will be

Specs: left if present. Retention will be red & white pine saplings, poles, logs.

Next Step Treatments:

Acceptable mixed conifer/pine, mixed hardwood, aspen

Monitoring, Natural Regen (Re-Inventory)

Regen:
Other
Comment:
Site Condition

Proposed Start Date: 10/1 /2023

Compartment: 29

s

а									Year of Entry	'	DNR
n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habit Cut
13	12029013-0	cut 4.4	4139 - Aspen, Mixed Deciduous	Poletimbe Well	r 66	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
Pres Spe		al harvest al	l stems 2" and great	er except pir	ne and	cedar. We	t pockets will b	e excluded and cou	inted toward reter	ntion	
	<u>t Step</u> Mor atments:	nitoring, Nat	ural Regen (Re-Inve	ntory)							
Acce Reg		en, mixed h	ardwood mixed conif	fer							
Othe Com	e <u>r</u> nment:										
<u>Site</u>	Condition (	Other Dept.	/Div. Processes								
Prop	oosed Start D	ate: 10/1 /2	2023								
14	12029014-0	<b>cut</b> 13.7	42110 - Planted Red Pine	Sawtimbe Well	r 67	111- 140	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	No
Pres Spe	<u>scription</u> Thir <u>cs:</u>	n to BA 100									
	t Step atments:										
Acce Reg	eptable en:										
Othe Con	<u>er</u> nment:										
<u>Site</u>	Condition										
<u>Pro</u> r	osed Start D	ate: 10/1 /2	2023								
				Dalatinaha	r 101	Linence	Harvest	Clearcut	6121 -	Even-Aged	
17	12029017-0	<b>cut</b> 16.0	6120 - Lowland Cedar	Poletimbe Well	1 104	ified	i idi voot	Clearcut	Tamarack	3	No
Pres	scription Cut	all stems 2'		Well cedar or pin	ıe. ELB	ified is starting	to cause mort		Tamarack		
Pres Spe	scription Cut cs: be v	all stems 2' vinter only.	Cedar  and greater except	Well cedar or pin n 100 foot bi	ıe. ELB	ified is starting	to cause mort		Tamarack		
Pres Spe Next Trea	scription Cut be vote temperature of	all stems 2' vinter only.	Cedar " and greater except Stand cut shown with	Well cedar or pin n 100 foot bi ntory)	ıe. ELB	ified is starting	to cause mort		Tamarack		
Pres Sper Next Trea Acce Reg	scription Cut cs: be v t Step Mor atments: eptable mixeen:	all stems 2' vinter only.	Cedar " and greater except Stand cut shown with ural Regen (Re-Inve	Well cedar or pin n 100 foot bi ntory)	ıe. ELB	ified is starting	to cause mort		Tamarack		
Pres Special Next Trea Acce Reg Other	scription Cut cs: be v t Step Mor atments: eptable en: er nment:	all stems 2' vinter only.	Cedar " and greater except Stand cut shown with ural Regen (Re-Inve	Well cedar or pin n 100 foot bi ntory)	ıe. ELB	ified is starting	to cause mort		Tamarack		
Press Special Next Trea Acce Reg Other	scription Cut cs: be v t Step Mor atments: eptable mixeen:	all stems 2' vinter only. itoring, Nat ed conifer, b	Cedar  " and greater except Stand cut shown with rural Regen (Re-Inve	Well cedar or pin n 100 foot bi ntory)	ıe. ELB	ified is starting	to cause mort		Tamarack		
Press Special Next Trea Acce Reg Othe Com	scription Cut cs: be w t Step Mor atments: eptable mixe en: er nment: Condition	all stems 2' winter only. hitoring, Nat ed conifer, b	Cedar  " and greater except Stand cut shown with rural Regen (Re-Inve	Well cedar or pin n 100 foot bi ntory) I hardwood	e. ELB uffer to	ified is starting Stafford C	to cause mort		Tamarack		ill need t
Pres Sper Next Trea Acca Reg Othe Com Site	scription Cut cs: be v  t Step Moratments:  eptable mixeen: er condition cosed Start D  12029018 Monitor scription	all stems 2' winter only. hitoring, Nat ed conifer, b	Cedar " and greater except Stand cut shown with rural Regen (Re-Inver- palm of gilead, mixed	Well cedar or pin n 100 foot bi ntory) I hardwood	e. ELB uffer to	ified is starting Stafford C	to cause mort k.	ality in this stand. T	Tamarack his is a cleanse/s	alvage cut. W	ill need t
Press Spering Next Treas Accord Reg Other Com Site Prop 18 Press Spering Next	scription Cut cs: be v  t Step Moratments:  eptable mixeen: er condition cosed Start D  12029018 Monitor scription	all stems 2' winter only. hitoring, Nat ed conifer, b	Cedar " and greater except Stand cut shown with rural Regen (Re-Inver- palm of gilead, mixed	Well cedar or pin n 100 foot bi ntory) I hardwood	e. ELB uffer to	ified is starting Stafford C	to cause mort k.	ality in this stand. T	Tamarack his is a cleanse/s	alvage cut. W	ill need t
Press Spering Site Prop 18 Press Spering Site Prop 18 Press Spering Sp	scription Cut cs: be v  t Step Mor atments:  eptable mix en: er nment: Condition cosed Start D  12029018 Monitor scription cs: t Step atments: eptable tam	all stems 2'vinter only. initoring, Nated conifer, but the conifer, but the conifer of the conif	Cedar " and greater except Stand cut shown with rural Regen (Re-Inver- palm of gilead, mixed	Well cedar or pin n 100 foot bi ntory) I hardwood  Nonstocke	e. ELB uffer to	ified is starting Stafford C	to cause mort k.	ality in this stand. T	Tamarack his is a cleanse/s	alvage cut. W	ill need t
Press Spering Next Treat According Site Prop 18 Press Spering Next Treat According According Next Treat According Other Next Treat According Other Next Treat According Other Next Treat According Nex	scription Cut cs: be v  t Step Moratments:  eptable mixen: er ment: Condition cosed Start D  12029018 Monitor cscription cs: t Step atments: eptable tament:	all stems 2'vinter only. initoring, Nated conifer, but the conifer, but the conifer of the conif	Cedar  " and greater except Stand cut shown with tural Regen (Re-Invertigation of gilead, mixed  2023  330 - Low-Density Trees	Well cedar or pin n 100 foot bi ntory) I hardwood  Nonstocke	e. ELB uffer to	ified is starting Stafford C	to cause mort k.	ality in this stand. T	Tamarack his is a cleanse/s	alvage cut. W	ill need to
Press Special Next Treat According Site Property 18  Press Special Next Treat According Next Treat According Communication (Communication) Press Special Next Treat According to the According Treat Ac	scription Cut cs: be v  t Step Moratments: eptable mixen: er ment: Condition cosed Start D  12029018 Monitor cs: t Step atments: eptable taments: eptable tamen: er Pere	all stems 2' vinter only. hitoring, Nat ed conifer, t  ate: 10/1/2 - 41.1  arack, mixe	Cedar  " and greater except Stand cut shown with tural Regen (Re-Invertigation of gilead, mixed  2023  330 - Low-Density Trees	Well cedar or pin n 100 foot bi ntory) I hardwood  Nonstocke	e. ELB uffer to	ified is starting Stafford C	to cause mort k.	ality in this stand. T	Tamarack his is a cleanse/s	alvage cut. W	No ill need to

Crystal Falls Mgt. Unit

s

Report 3 -- Treatments

Compartment: 29 Year of Entry: 2024 DNR MICHIGAN

t										rear or Linu	y. 2024	DNR
a n d	Treatmen Name	t	Acres	Stand CoverType		Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
32	12029032-	Cut	5.6	4134 - Aspen, Spruce/Fir	Poletimbe Well	r 56	Unspec ified	Harvest	Clearcut	413 - Aspen	Even-Aged	No
Pre Spe		al ha	arvest usir	ng 4" spec. Leave	Cedar, Hem	nlock, P	ine if foun	d. Try to sell w	vith adjacent stand (	(negotiated) if tim	e permits.	
	<u>kt Step</u> Mo atments:	nitor	ing, Natur	ral Regen (Re-Inve	entory)							
	<u>:eptable</u> as <sub>l</sub> gen:	oen,	mixed har	rdwood, mixed soft	wood							
Oth Cor	<u>er</u> nment:											
Site	<u>Condition</u>											
Pro	posed Start I	Date:	10/1 /20	)22								
42	12029042-	Cut	84.4	4130 - Aspen	Poletimbe Well	r 50	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
			arvest all s d (=6%).	stems 2" and great	er except wh	nite/red	pine, ced	ar, oak, hemloo	ck (if found). WLD re	equests 5 acre bl	ock of retention	n in center
	<u>kt Step</u> Mo atments:	nitor	ing, Natur	ral Regen (Re-Inve	entory)							
	<u>eptable</u> as <sub>l</sub> gen:	oen,	mixed cor	nifer, mixed hardwo	ood							
Oth Cor	<u>er</u> nment:											
Site	<u>Condition</u>											
Pro	posed Start I	Date:	10/1 /20	)23								
51	12029051-	Cut	29.7	42110 - Planted Red Pine	Sawtimbe Well	r 67	111- 140	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	No
	scription Th	n to	BA 100									
	<u>kt Step</u> atments:											
	eptable gen:											
Oth Cor	<u>er</u> nment:											
Site	<u>Condition</u>											
1 _												

Total Treatment Acreage Proposed: 254.1

Proposed Start Date: 10/1 /2023

Crystal Falls Mgt. Unit

Deb Goupell: Examiner

Compartment: 29
Year of Entry: 2024

Availa	ability for	Managemer	nt							
Total	Acres	Acres Avail	Acres		Domina	nt Site	e Con	ditions	S	
Acres	Available	With Condition	Not Available		5B	5C	1C	2G	3L	5E
958	809	114	36	Aspen		114	25	4	0	7
429	429	0	0	Cedar						
58	58	0	0	Herbaceous Openland						
63	56	0	7	Low-Density Trees						7
211	10	0	202	Lowland Conifers				182	16	3
294	293	0	1	Lowland Shrub				1		
17	15	0	3	Lowland Spruce/Fir					0	3
15	15	0	0	Mixed Upland Deciduous						0
36	0	36	0	Natural Mixed Pines		36				
251	251	0	0	Northern Hardwood						
103	81	21	0	Red Pine	21					0
27	27	0	0	Upland Spruce/Fir						
5	5	0	0	Water						
4	4	0	0	White Pine						
2,472	2,052	172	248	Total Forested Acres	21	150	25	186	16	21
	83%	7%	10%	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.

Comments:  2 Unavailable 20	: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
2 Unavailable <b>2</b> 0						
	G: Too wet (sensitive oils, does not include access issues)	131	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						

# Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Deb Goupell: Examiner

3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Available	5B: Maintain for regeneration purposes	22	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Understory has thic	ck white pine regeneration, parti	cularly	north/east of Cootware Rd.			
5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	79	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	5E: Long-Term Retention	2	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments: St 72 retention						
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	49	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	comments: st 37 retention						

# Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Deb Goupell: Examiner

9	Unavailable	3L: Other wildlife concerns	16	Unspecified	Unspecified	Unspecified	Unspecified
	<b>Comments:</b> Leaving for deer w	inter cover and bear corridor alo	ng cre	eek- Ryan McGillviray WLD			
10	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
11	Unavailable	5E: Long-Term Retention	7	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
12	Unavailable	5E: Long-Term Retention	3	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments: st 47 retention						
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	36	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
14	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
15	Unavailable	1C: Other dept or div proc/practices	25	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
-		heavily by turkeys during winter ese birds- Ryan McGillviray WLD		arm adjacent to this stand is a	large turkey wintering a	rea (200-300 birds). This s	tand is used for loafing

# **Report 4 – Site Conditions**

Crystal Falls Mgt. Unit

Year of Entry: 2024 **Deb Goupell: Examiner** 

16 **Available** 5C: Delay treatment for 35 Unspecified Unspecified Unspecified Unspecified age/size class diversity or exceptional site quality

Compartment: 29

#### Comments:

Stand composition of conifer is primarily understory and located on edges of stand within buffer areas. Stand loss should be minimal due to small diameter of spruce/fir Evaluated 2017

11/18/2022 11:20:53 AM - Page 4 of 4 **SWARTZN3**  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				

Crystal Falls Mgt. Unit Compartment: 29





# 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	і 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 cond stocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	es (e.g., slimy sculpin) to persist from se conditions due to substantial
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildl and Waterfowl Production Areas, deer wintering complexes in lo openings and savannas. Habitat areas are distinct from critical hendangered or threatened species (such as Kirtland's warbler or general in nature, are not primarily associated with threatened or covered by species recovery plans that are developed in cooperations.	wland conifer communities, grassland abitat designated for recovery of piping plover areas) in that they are more rendangered species, and are not
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their efferas aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, liversity of plants and wildlife. Riparian cts on water quality and quantity, as well



Stan	d Level 4 C	over Type	;	Size De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments			
1	42210 - Nat	tural Red F	Pine Sa	wtimbe	Medium	22.0	92	1-50	N/A		Broken Leg Pine TS cut 2015. More white pine saplings north of			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Cootware road; larger pine south.			
	Red Pine	60	Log/Pole	10	92	Quak	ing Aspen	Low	< 5 feet	Sapling				
	White Pine	40	Pole/Sap/Log	9	92	Wh	nite Pine	High	10 - 20 feet	Sapling				
2	622 - Lov	vland Shru	b	Nonst	ocked	36.9	U	nspecified	No					
3	4133 - Aspe	en, Mixed F	Pine P	oletimb	er Well	95.8	40 U	nspecified	N/A		Small strip planted red pine in far north center. Better aspen on west h			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Brushy and more dead confiler on east end.			
	White Spruce	10	Pole/Sapling	7		Hazelnı	ıt (American)	Full	< 5 feet	Tall Shrub				
	Red Maple	15	Pole	7		Wh	nite Pine	Medium	Variable	Sapling				
	Red Pine	5	Log/Pole	10		Ва	lsam Fir	Low	Variable	Sapling				
	Quaking Aspen	50	Pole	7	40									
	White Pine	15	Pole/Sap/Log	9										
	Jack Pine	5	Pole	8										
4	42110 - Pla	nted Red F	Pine P	oletimb	er Well	8.5	67	111-140	N/A		Broken Leg Pine 2015; ready to be thinned			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size				
	White Pine	2	XLog/Log	18		Hazelnu	ıt (American)	Medium	< 5 feet	Tall Shrub				
	Red Pine	98	Log	11	67	Whit	te Spruce	Low	5 - 10 feet	Sapling				
5	4130	- Aspen	Р	oletimb	er Well	9.1	46 U	nspecified	N/A					
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size				
	Quaking Aspen	65	Pole	9	46	Ва	lsam Fir	Low	Variable	Sapling				
	White Pine	5	Log	14		Hazelnı	ıt (American)	High	< 5 feet	Tall Shrub				
	Red Maple	10	Pole	9		Whit	te Spruce	Medium	Variable	Sapling				
	White Spruce	3	Pole	9							-			
	Paper Birch	7	Pole	9										
	Red Pine	10	Pole/Log	9										
6	4130	- Aspen	Р	oletimb	er Well	21.3	46 U	nspecified	N/A		Wet swale divides the stand. There's an opening on the south with re			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	the Ford River and has large white pine, aspen, white spruce			
	Quaking Aspen	65	Pole/Log	9	46	Whit	te Spruce	Low	Variable	Sapling	J , , , , , , , , , , , , , , , , , , ,			
	Red Maple	20	Pole	9		Ва	lsam Fir	Medium	Variable	Sapling				
	White Pine	5	Log/Pole	14										
	Paper Birch	7	Pole	9										
	White Spruce	3	Pole/Log	9										
7	622 - Lov	vland Shru	h	Nonst	ncked	116.6	11	nspecified	No					
7	022 - LUV	viaria Offici		11011510	oneu	1 10.0	U	napeomeu	INO					

Report 7 - Stands



Stan	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
8	6120 - Lo	wland Ced		Poletimb	oer Well	83.3	96 U	Inspecified	N/A		
	Canopy Species	% Cove	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	
No	orthern White Cedar	50	Pole	10	96	Black	Spruce	Low	< 5 feet	Seeding	
	Black Spruce	30	Pole	8							
	Tamarack	15	Pole	8							
	Paper Birch	5	Pole	7							
9	42110 - Pla	nted Red F	Pine F	Poletimb	er Well	29.1	67	111-140	N/A		
	Canopy Species	% Cove	Size Class	DBH	H Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	White Pine	5	Pole	8		White	Spruce	Low	Variable	Sapling	
	Red Pine	95	Pole/Log	11	67	Hazelnut	(American)	High	< 5 feet	Tall Shrub	
10	310 - Herbac	eous Oper	nland	Nonst	ocked	16.5	U	Inspecified	No		This is an underground pipeline
11	42260 - Natural Pi	ne, Mixed	Deciduous F	Poletimb	oer Well	36.3	61	111-140	N/A		This is a mixed conifer, unplanted stand. Will hold another entry to cut
	Canopy Species	% Cove	Size Class	DBH	H Age	Sub-Can	opy Species	Density	Avg. Height	Size	non pine species along with some additional pine thinning.
	White Pine	40	Log/Pole/Sap	12	61	Whi	te Pine	Medium	Variable	Sapling	
	Paper Birch	10	Pole/Log	8		Bals	am Fir	Medium	Variable	Sapling	
	Quaking Aspen	25	Pole	9		White	Spruce	Medium	Variable	Sapling	
	Red Pine	25	Log/Pole	10							
12	4133 - Aspe	en, Mixed F	Pine F	Poletimb	er Well	23.2	66	81-110	N/A		Mixed upland stand with pine. Remove all species but pine which is
	Canopy Species	% Cove	Size Class	DBH	H Age	Sub-Can	opy Species	Density	Avg. Height	Size	further west. Take aspen reachable from the north side of southernmost pipeline.
	Quaking Aspen	45	Pole	8	66	Black	Spruce	Low	Variable	Sapling	pipeline.
	White Spruce	15	Pole	8		Bals	am Fir	Low	Variable	Sapling	
	White Pine	25	Log/Pole	11		White	Spruce	Medium	Variable	Sapling	
	Paper Birch	5	Pole	9				'			
	Red Maple	10	Pole	8							
13	4139 - Aspen,	Mixed Dec	iduous F	Poletimb	oer Well	24.7	66 U	Inspecified	N/A		Cut leaving pine. Couple of wet pockets on Cootware Rd to be excluded
	Canopy Species	% Cove	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	Sugar Maple	13	Pole	9		Hazelnut	(American)	Medium	< 5 feet	Tall Shrub	
	Paper Birch	15	Pole	9		Iror	nwood	Low	Variable	Sapling	
	Quaking Aspen	55	Log/Pole	10	66	Whi	te Pine	Medium	Variable	Sapling	
	White Spruce	2	Pole	9		Leath	erwood	Low	< 5 feet	Tall Shrub	
	White Pine	5	Log/XLog	14							



Stand	d Level 4 C	over Type	;	Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
14	42110 - Pla			Sawtimbe		13.7	67	111-140	N/A		Broken Leg Pine TS thinned 2015. Thin and final harvest next entry. BA: 100, 170, 130, 80
	Canopy Species Red Pine	% Cover	Size Class Log/Pole	14	Age 67						
15		- Aspen		Sapling		15.5	16	Unspecified	N/A		Chevy TS closed 2006
15	Canopy Species		Size Class	DBH		10.0	10	Onopcomed	14// (		Shovy 10 dissed 2000
	White Pine	10	Pole/Sapling		Age						
	Quaking Aspen	80	Sapling	2	16						
	Red Maple	10	Sapling	1							
16	4133 - Aspe	en, Mixed P	ine P	oletimbe	er Well	53.1	22	Unspecified	N/A		Chevy TS 1990. Good diverse stand. Scattered and pockets of red/white
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size	pine/conifer. Some cherry and red maple.
	Red Pine	10	Pole	8	7.50		Inut (Spp.)	Full	5 - 10 feet	Tall Shrub	
	Balsam Fir	10	Pole/Sapling	7	22		Isam Fir	Medium	Variable	Sapling	
	White Spruce	5	Pole/Sapling	7		Wh	nite Pine	Low	5 - 10 feet	Sapling	
	White Pine	10	Pole	8				1			ı
	Paper Birch	5	Sapling	3							
	Quaking Aspen	60	Pole/Sapling	5	22						
17	6120 - Lo	wland Ceda	ar P	oletimb	er Well	185.1	104	Unspecified	N/A		most of the tamarack is concentrated along Cootware Rd. There is some nortality showing up but tamarack on west side of Cootware is small
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size	diameter (5-6")
	Paper Birch	5	Pole/Sapling				marack	Medium	10 - 20 feet	Sapling	
No	orthern White Cedar	50	Pole	10	104	Ta	ng Alder	High	< 5 feet	Tall Shrub	
	Tamarack	25	Pole	7							
	Black Spruce	20	Pole	7							
18	330 - Low-	Density Tre	es	Nonsto	cked	51.1	0	Unspecified	613 - Lowland M	lixed Forest	Seed tree pockets of black spruce left plus along north edges. Cut 2016 with TS If Kneed Be #12-001-15. Full on cattails. A couple of black spruce seedlings seen. Only been 5 yearscontinue monitoring.
19	4130	- Aspen	P	oletimb	er Well	8.4	46	Unspecified	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age		nopy Speci	es Density	Avg. Height	Size	
	Balsam Fir	10	Pole	7			te Spruce	Low	5 - 10 feet	Sapling	
	Paper Birch	10	Pole	6		Ва	lsam Fir	Low	5 - 10 feet	Sapling	
	Quaking Aspen	80	Pole	8	46						
20	4130	- Aspen		Sapling	Well	41.3	16	Immature	N/A		Palluconi TS closed 2006
	Canopy Species		Size Class		Age						
	White Spruce	5	Pole/Sapling								
	White Pine	5	Log/XLog	16							
	Balsam Fir	5	Pole/Sapling		4.0						
	Quaking Aspen	85	Sapling	1	16						

Crystal Falls Mgt. Unit Report 7 - Stands



Stand	Level 4 C	Level 4 Cover Type		Size Density		Acres	Stand Age	BA Range	Managed S	Site	General Comments
21	6129 - Mixed Coniferous Lowland Forest Po			oletimber Medium		n 3.1	75	Unspecified	N/A		this stand was probably more of a retention pocket
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
	Black Spruce	40	Pole	8		Ta	ag Alder	Medium	< 5 feet	Tall Shrub	
	Tamarack	40	Pole	8	75	Ва	ılsam Fir	Medium	Variable	Sapling	
No	rthern White Cedar	20	Pole/Log	9	101						
22	4130	- Aspen	F	Poletimb	er Well	9.0	46	Unspecified	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
	Quaking Aspen	80	Pole	8	46	Ва	ılsam Fir	Low	5 - 10 feet	Sapling	
	Paper Birch	10	Pole	6		Whi	te Spruce	Low	5 - 10 feet	Sapling	
	Balsam Fir	10	Pole	7							
23	4110 - Sugar M	laple Asso	ciation :	Sawtimb	er Well	155.7	97	51-80	N/A		Ralph Hill TS closed 2005. If Kneed Be Tsale #12-001-15. BAs 90, 60, 8
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Sugar Maple	60	Log/Pole	12	97	In	onwood	Full	Variable	Sapling	
	Basswood	30	Log	14		W	hite Ash	Low	Variable	Sapling	
	White Pine	5	XLog	18						1	
	White Ash	3	Log/Pole	10							
	Paper Birch	2	Pole	9							
24	42200 - Natu	ıral White F	Pine F	Poletimb	er Poor	3.5	46	1-50	N/A		white pine is completely bushed out. This stand was clearcut and burned
	Canopy Species	% Cover	Size Class	DBH	l Age						in 1976
	White Pine	70	Pole/Sapling	7	46						
	Balsam Fir	30	Pole	7							
25	4130	- Aspen		Sapling Well		5.6	6	Immature	N/A		Cut 2016 with TS If Kneed Be. Far east is less stocked. Trace of
	Canopy Species	% Cover	Size Class	DBH	l Age						red/white pine residual
	Red Maple	5	Sapling	1							
	White Pine	5	Log/XLog	16							
	Quaking Aspen	55	Sapling	1	6						
	Bigtooth Aspen	35	Sapling	1	6						
26	4136 - Aspen	, Mixed Co	nifer F	Poletimber W		143.2	28	Unspecified	N/A		Hintz Lake TS closed 1993. Tamarack is located in far south side of
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	stand. There are more open areas on north side of east half of stand; they are filling in with balsam, spruce, jack, white and some red pine and
	Tamarack	2	Sapling	3		WI	hite Pine	Low	Variable	Sapling	tamarack. Residual red pine log sized trees in southeast corner of stand
	Balsam Fir	10	Pole/Sapling	9 6		Ва	ılsam Fir	Medium	Variable	Sapling	
	White Pine	3	XLog	18		Ja	ck Pine	Low	5 - 10 feet	Sapling	
	Red Pine	5	Log	14		Whi	te Spruce	Medium	Variable	Sapling	
	White Spruce	5	Pole/Sapling	9 6							



				Size Density	710100	Stand Age	BA Range	Managed	Site	General Comments
27	622 - Low	land Shrub	1	Nonstocked	35.4		Unspecified	No		
28	500 -	Water		Nonstocked	5.3		Unspecified	No		
29	6129 - Mixed Conife	erous Lowla	and Forest	Poletimber Well	131.7	99	Unspecified	N/A		Drainage in north off CR 426 into Hayes Ck
(	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Paper Birch	5	Pole	7	Blac	k Spruce	Medium	Variable	Sapling	
	Balsam Fir	5	Pole	8	Ва	lsam Fir	Medium	Variable	Sapling	
	Black Spruce	30	Pole	7			,		,	•
Nort	hern White Cedar	45	Pole	10 99						
	Tamarack	15	Pole	9						
30	6122 - Bla	ack Spruce		Sapling Poor	17.4	6	Immature	N/A		Silver Palace TS cut 2016. All cedar was left; county cut and left some cedar around corner for clear vision. 100 foot buffer to Stafford Creek left
(	Canopy Species	% Cover	Size Class	DBH Age						for retention. WC is residual. Black spruce is coming in 1-3', some
C	Quaking Aspen	5	Sapling	1						tamarack as well.
Nort	hern White Cedar	5	Log/Pole	10						
	Tamarack	30	Sapling	1						
	Black Spruce	60	Sapling	1 6						
31	6129 - Mixed Conife	erous Lowla	and Forest	Poletimber Well	16.6	103	Unspecified	N/A		Smaller diameter trees
	Canopy Species		Size Class	DBH Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Paper Birch	5	Pole	7	Blac	k Spruce	Low	Variable	Sapling	
	Black Spruce	25	Pole	7	Ta	g Alder	Medium	< 5 feet	Tall Shrub	
	Tamarack	30	Pole/Sapling		Whit	te Spruce	Low	Variable	Sapling	
Nort	hern White Cedar	40	Pole/Log	10 103	Ва	lsam Fir	Low	Variable	Sapling	
32	4134 - Aspe	•		Poletimber Well	5.6	56	Unspecified	N/A		
	Canopy Species		Size Class	DBH Age		nopy Specie		Avg. Height	Size	
	Quaking Aspen	60	Pole	8 56	Hazelnı	ıt (American)	Low	< 5 feet	Tall Shrub	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	White Spruce	20	Pole/Log	9						
<u> </u>	Balsam Fir	20	Pole	8						
33	330 - Low-E	ensity Tre	es	Nonstocked	11.5	0	Unspecified	613 - Lowland N	lixed Forest	Silver Palace TS cut 2016Cedar trees left. Cattails. Needs further monitoring. Some black spruce/tamarack beginning to appear mostly along upland edge, less than 3 ft tall
34	4130	- Aspen		Sapling Well	75.5	7	Immature	N/A		Silver Palace cut 2016
(	Canopy Species	% Cover	Size Class	DBH Age						
C	Quaking Aspen	100	Sapling	1 7						

Report 7 - Stands



Stand	d Level 4 C	vel 4 Cover Type Size Density Acres Stand Age BA Range Managed Site		Site	General Comments						
35	4110 - Sugar N	<b>5</b> ,			er Well	8.9	99	81-110	N/A		Thinned 2015 Silver Palace TS
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Sugar Maple	60	Pole	7	99	Whit	te Spruce	Low	< 5 feet	Sapling	
	Basswood	30	Log/Pole	12		Iro	onwood	High	< 5 feet	Sapling	
	Balsam Fir	5	Pole	9							
	Quaking Aspen	5	Log/Pole	11							
36	4191 - Mixed Upla Co	and Decidu onifer	ous with F	Poletimb	er Poor	15.3	52	1-50	N/A		Field filling in with aspen, some hardwood, conifer, cherry, elm
	Canopy Species	% Cover	Size Class	DBH	Age						
	Sugar Maple	50	Pole/Log	9	52						
	Balsam Fir	10	Pole	8							
	Quaking Aspen	15	Pole	8							
	Balsam Poplar	5	Pole	7							
	White Spruce	20	Pole	8							
37	6129 - Mixed Conif	erous Lowl	and Forest Po	letimber	Mediun	n 7.0	101 L	Jnspecified	N/A		tamarack is heaviest north of tag swale, also very thick balsam fir
<u> </u>	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	understory.
	Black Spruce	5	Pole	10		Ta	ng Alder	High	5 - 10 feet	Tall Shrub	
No	orthern White Cedar	45	Pole	10	101		Isam Fir	High	Variable	Sapling	
	Tamarack	35	Pole	9		Bla	ack Ash	Low	Variable	Sapling	
	Balsam Poplar	15	Log/Pole	10		Re	d Maple	Low	5 - 10 feet	Sapling	
38	622 - Lov	vland Shrub	)	Nonsto	cked	9.3	L	Jnspecified	No		
39	4136 - Asper	n, Mixed Co	nifer	Sapling	Well	18.0	31	Immature	N/A		426 TS, closed in 1991 Some lower, wet pockets
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Balsam Fir	5	Pole	8		Ва	lsam Fir	Low	Variable	Sapling	
	Tamarack	5	Sapling	2		Whit	te Spruce	Low	Variable	Sapling	
	White Spruce	10	Pole	8		Ta	ng Alder	Medium	< 5 feet	Tall Shrub	
	Balsam Poplar	10	Pole/Sapling	6						1	1
	Quaking Aspen	70	Pole/Sapling		31						
40	42340 - Upl	and Spruce	/Fir	Sapling	Well	26.9	31	Immature	N/A		Some low places. Tag scattered throughout. 426 Ts closed 1991
	Canopy Species	% Cover	Size Class		Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	- 
	Quaking Aspen	25	Sapling/Pole		31		Isam Fir	Medium	5 - 10 feet	Sapling	
	Balsam Fir	35	Pole/Sapling		31		te Spruce	Medium	5 - 10 feet	Sapling	
	White Spruce	25	Pole/Sapling				ng Alder	Medium	10 - 20 feet	Tall Shrub	
	Tamarack	5	Pole/Sapling								1
	Red Maple	10	Pole	7							
			. 0.0								



Stand	d Level 4 Cover Type		Size Density	Acres	Stand Age	BA Range	Managed \$	Site	General Comments	
41	6129 - Mixed Conife	6129 - Mixed Coniferous Lowland Forest			7.1	6	Immature	N/A		All cedar left; ring left around perimeter is cedar, tamarack, black spruce
	Canopy Species	% Cover	Size Class	DBH Age						Stand cut 2016 Silver Palace TS.
No	rthern White Cedar	20	Pole/Log	9						
	Tamarack	40	Sapling	1						
	Black Spruce	40	Sapling	1 6						
42	4130	4130 - Aspen		Poletimber Wel	l 84.4	50	Unspecified	N/A		Brushy understory but aspen is quite consistent (low variablility, cruise
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size	1:1.5 or 2). Enbridge pipeline emergency # 800-858-5253. Posts/wire st
	Red Maple	10	Log/Pole	10	Hazeln	ut (Americar	n) High	< 5 feet	Tall Shrub	аюту рустте.
	Sugar Maple	5	Pole	9	Ва	alsam Fir	Low	Variable	Sapling	
	Black Cherry	5	Pole	6			·			-
	Quaking Aspen	80	Pole/Log	9 50						
43	4130	- Aspen		Poletimber Wel	l 79.7	48	Unspecified	N/A		Rather short stems, 5-6 sticks. Will hold for next entry
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size	
	Balsam Fir	5	Pole	8	Su	gar Maple	Medium	5 - 10 feet	Sapling	
	White Spruce	5	Log/Pole	12	Re	ed Maple	Medium	5 - 10 feet	Sapling	
	Quaking Aspen	90	Pole	9 48	Hazeln	ut (Americar	n) Full	< 5 feet	Tall Shrub	
44	4130	- Aspen		Sapling Well	23.8	3 6	Immature	N/A		Cut in 2016. North central is an old opening (~2ac). Pocket retention just
	Canopy Species	% Cover	Size Class	DBH Age						south of RR track SW corner
	Quaking Aspen	100	Sapling	1 6						
45	6129 - Mixed Conife	erous Lowla	and Forest	Poletimber Wel	l 45.9	97	Unspecified	N/A		Drainage with bed/bank in NW halfof stand.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size	
	Quaking Aspen	10	Pole	9	Ta	ag Alder	Medium	5 - 10 feet	Tall Shrub	
	Balsam Poplar	3	Log/Pole	11	Wh	ite Spruce	Low	Variable	Sapling	
	Mhita Carusa	10	Pole/Log	10	Ba	alsam Fir	Low	Variable	Sapling	
	White Spruce			. •						
	Black Spruce	20	Pole	7						
	•									•
	Black Spruce	20	Pole	7						

DNR DICHIGAN

Stand	i Level 4 C	over Type	;	Size Density		Acres	Stand Age	BA Range	Managed S	Site	General Comments
47	4134 - Aspen, Spruce/Fir			Poletimber Medium			48	Unspecified	N/A		Some wind bent aspen in north. Black cherry in open areas.South of RR
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Specie	s Density	Avg. Height	Size	tracks is where spruce/pine are concentrated. Very brushy stand. Tall hazel, cherry
	White Pine	2	Log/Pole	12		Hazelnu	ut (American)	) High	< 5 feet	Tall Shrub	
	Red Maple	5	Pole	9		Ва	lsam Fir	Medium	Variable	Sapling	
	Quaking Aspen	70	Pole	9	48						
	Black Cherry	15	Pole	9							
	Balsam Poplar	5	Log/Pole	10							
	Red Pine	3	Pole	8							
48	4130 - Aspen			Sapling	g Well	65.7	15	Unspecified	N/A		Two Pipelines TS closed 2007. There is a wet swale on north side of
	Canopy Species	% Cover	Size Class	DBH	l Age						north pipeline with cedar, black ash, red maple, tamarack, white spruce. (retention). Still has wire fencing along pipelines
	Sugar Maple	2	Sapling	1							( ),
	White Spruce	3	Sapling	1							
	Black Cherry	5	Sapling	2							
	Quaking Aspen	80	Sapling	2	15						
	Balsam Poplar	10	Sapling	2							
49	4130 - Aspen			oletimb	er Well	65.1	31	Unspecified	N/A		'87 Blizzard TS closed 1991; wet swale runs through center of stand (still
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	fully stocked).
	Quaking Aspen	95	Pole/Sapling	5	31	Ва	lsam Fir	Medium	< 5 feet	Sapling	
	Balsam Poplar	5	Pole/Sapling	5		Whit	te Spruce	Medium	Variable	Sapling	
						11					
50					L	Haze	Inut (Spp.)	Full	5 - 10 feet	Tall Shrub	
อบ	6120 - Lov	wland Ceda	ır P	oletimb	er Well	160.5	( 11 /	Full Unspecified	5 - 10 feet N/A	Tall Shrub	Far south of stand is less stocked.
อบ	6120 - Lov		r F		er Well	160.5	( 11 /	Unspecified		Tall Shrub	
อบ				DBH		160.5 <b>Sub-Ca</b>	97	Unspecified	N/A		
50	Canopy Species	% Cover	Size Class	<b>DB</b> H		160.5 Sub-Car Whit	97 nopy Specie	Unspecified es Density	N/A Avg. Height	Size	
อบ	Canopy Species Tamarack	% Cover	Size Class Pole/Sapling	<b>DB</b> H		160.5 Sub-Car Whit	97 nopy Specie te Spruce	Unspecified es Density Medium	N/A  Avg. Height  Variable	<b>Size</b> Sapling	
50	Canopy Species Tamarack Paper Birch	% Cover 20 5	Size Class Pole/Sapling Pole/Sapling	7 5		160.5  Sub-Car  Whit	97 nopy Specie te Spruce ck Spruce	Unspecified  S Density  Medium  Medium	N/A  Avg. Height  Variable  < 5 feet	Size Sapling Sapling	
50	Canopy Species Tamarack Paper Birch Balsam Fir	% Cover 20 5 5	Size Class Pole/Sapling Pole/Sapling Pole	7 5 8		160.5  Sub-Car  Whit  Blace  Ta	97 nopy Specie te Spruce ck Spruce amarack	Unspecified  S Density  Medium  Medium  Medium	N/A  Avg. Height  Variable  < 5 feet  Variable	Size Sapling Sapling Sapling	
	Canopy Species Tamarack Paper Birch Balsam Fir Black Spruce	% Cover 20 5 5 15	Size Class Pole/Sapling Pole/Sapling Pole Pole	7 5 8 8		160.5  Sub-Car  Whit  Blace  Ta	97 nopy Specie te Spruce ck Spruce amarack ag Alder	Unspecified  S Density  Medium  Medium  Medium  Medium  Medium	N/A  Avg. Height  Variable  < 5 feet  Variable  < 5 feet	Size Sapling Sapling Sapling Tall Shrub	
	Canopy Species Tamarack Paper Birch Balsam Fir Black Spruce White Spruce	% Cover 20 5 5 15 5 15 5	Size Class Pole/Sapling Pole/Sapling Pole Pole Pole Log/Pole	7 5 8 8 9	Age	160.5  Sub-Car  Whit  Blace  Ta	97 nopy Specie te Spruce ck Spruce amarack ag Alder	Unspecified  S Density  Medium  Medium  Medium  Medium  Medium	N/A  Avg. Height  Variable  < 5 feet  Variable  < 5 feet	Size Sapling Sapling Sapling Tall Shrub	
No	Canopy Species Tamarack Paper Birch Balsam Fir Black Spruce White Spruce orthern White Cedar	% Cover 20 5 5 15 5 50 nted Red P	Size Class Pole/Sapling Pole/Sapling Pole Pole Pole Log/Pole	7 5 8 8 9 111 Sawtimb	Age	160.5  Sub-Cal Whit Blacc Ta Ta Ba	97 nopy Specie te Spruce ck Spruce amarack ag Alder alsam Fir	Unspecified  Solution  Density  Medium  Medium  Medium  Low  111-140	N/A  Avg. Height  Variable  < 5 feet  Variable  < 5 feet  Variable  Variable	Size Sapling Sapling Sapling Tall Shrub	Far south of stand is less stocked.



Stand	Level 4 C	Level 4 Cover Type Size Density Acres Stand Age BA Range Managed Site		ite	General Comments						
52	4110 - Sugar Maple Association		ciation	Poletimber Well		82.8	97	81-110	N/A		Thinned 2017 Hardware Ralph TS. 1-2 acre pocket of red pine along private line in southwest on west line.
	Canopy Species	% Cover	Size Class	DBH A	Age	Sub-Car	nopy Species	s Density	Avg. Height	Size	private line in Southwest on west line.
	Basswood	15	Log	12		Whit	e Spruce	Low	10 - 20 feet	Sapling	
	Red Maple	8	Pole	9		Iro	nwood	High	5 - 10 feet	Sapling	
	White Pine	2	Log	14		Leat	therwood	Low	< 5 feet	Tall Shrub	
	Sugar Maple	75	Pole	9	97						
53	4130	- Aspen		Sapling V	Vell	5.5	5	Immature	N/A		Cut 2017 Hardware Ralph TS
	Canopy Species	% Cover	Size Class	DBH A	Age						
	Quaking Aspen	100	Sapling	1	5						
54	4110 - Sugar N			Sapling Me		4.0	14	Immature	N/A		All red pine was harvested to permit the sugar maple saplings to be released. 2017 Hardware Ralph TS.
	Canopy Species		Size Class								Tolousou. 2017 Haraware Halpin To.
	Sugar Maple	100	Sapling	2	14						
55	4130 - Aspen			Sapling Well		37.2	5	Immature	N/A		Cut 2017 Hardware Ralph TS. Planted pine to south was thinned and is now lumped in as residual in this stand, as it is too small acreage to
	Canopy Species	% Cover			Age						manage separately.
	Red Pine	5	Log/Pole		_						
	Quaking Aspen	95	Sapling	1	5						
56	4134 - Aspe	en, Spruce/	Fir	Poletimber	Well	6.6	45 l	Unspecified	N/A		
	Canopy Species		Size Class	DBH A	Age		nopy Species		Avg. Height	Size	
	Balsam Fir	15	Pole	6			sam Fir	Medium	Variable	Sapling	
	White Spruce	5	Pole	6		Whit	e Spruce	Medium	Variable	Sapling	
	Quaking Aspen	80	Pole	7	45						
400	3102	- Grass		Nonstock	ced	11.4	l	Unspecified	No		this was an abandoned airport
401	310 - Herbac	eous Open	land	Nonstocked		8.1	8.1 Unspecified		No		Pipeline
402	310 - Herbac	eous Open	land	Nonstock	ked	18.7	18.7 Unspecifie		No		pipeline
403	310 - Herbac	eous Open	land	Nonstock	ked	2.7	l	Unspecified	No		conifers filling in from center