

## **Compartment Review Presentation**

**Crystal Falls Forest Management Unit** 

Compartment 12126 Entry Year 2023 Acreage: 1,523 County Iron

Management Area: Michigamme Reservoir

Revision Date: 2021-08-16

Stand Examiner: Legal Description:

T44N R 32W Sections 4, 5, 8, 9,16, 17

### **Identified Planning Goals:**

Optimize sustainable timber production while enhancing and protecting wildlife habitat. Continue to sustainably balance the aspen age class acres. Continue northern hardwood management on a 20 year cycle. Protect the riparian areas and transition zones during management activity.

### Soil and topography:

Soils are generally silt loams and sandy loams with areas of muck soils in the low ground areas. There are rocky outcrops in the west of the compartment. The topography ranges from fairly steep rolling to flat and drainages.

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

Contiguous block of state land, bounded on all sides by private. Access is available and has been no issue in the past.

### **Unique Natural Features:**

The compartment is slightly in state ownership. Parcels of private ownerships border and are inside the compartment boundary. Active forest management has occurred and will continue within and surrounding the compartment.

## Archeological, Historical, and Cultural Features:

Several previously identified.

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

**Deer Wintering Complex** 

### Watershed and Fisheries Considerations:

The Deer River (cold water trout stream) runs north – south through the compartment. It is largely bordered by tag alder flats and mixed swamp conifer. 300 foot buffer set backs should be applied during aspen stand management. There are multiple creeks running throughout the compartment.

Waterbodies within this compartment include Deer River and Shenky Creek. Both are designated Type 1 trout streams less than 50' in width. A 300' buffer is recommended in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, 100' plus 5' per 1% increase in slope. Liver Lake borders the south portion and should receive a 100 foot buffer. Any other unnamed waterbodies should also receive 100ft buffer.

### Wildlife Habitat Considerations:

Deer numbers are fair in the area. Wolves also use the compartment and the surrounding area. The compartment falls within the Deerfoot Deeryard Complex and is heavily utilized by wintering deer. Lowland conifer stands should be maintained and enhanced to continue to provide good winter cover.

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

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and end moraines of coarse-textured glacial till. There is insufficient data to determine the glacial drift thickness. The Precambrian Hemlock Formation and intrusives subcrop below the glacial drift. There is not a current economic use for these rocks. The Porter and Warner abandoned iron mines are located four miles to the west. Part of this compartment was previously leased for metallic exploration and potential may still exist. The nearest gravel pit is located in Section 16. There should be gravel potential in the compartment. There is no economic oil and gas production in the UP.

#### **Vehicle Access:**

Fair to poor. Access is severely limited during spring breakup. Much of the interior is accessed by winter only unimproved roads. Many are not drivable by 4x4 trucks. Access is also limited from private landowners.

#### **Survey Needs:**

## **Recreational Facilities and Opportunities:**

None

#### **Fire Protection:**

Much of the compartment is composed of aspen timber types with balsam fir and hazel understory. Northern hardwoods and mixed conifer swamps also predominate. Access for fire suppression is fair overall. There also exist large expanses of bog and tag alder flats. Access for fire suppression vehicles in those forest types is severely limited. Fire suppression in these areas may wish to consider allowing fire to burn through these low ground areas and prevent its spread into the uplands. There are multiple private camps immediately adjacent to the compartment.

### **Additional Compartment Information:**

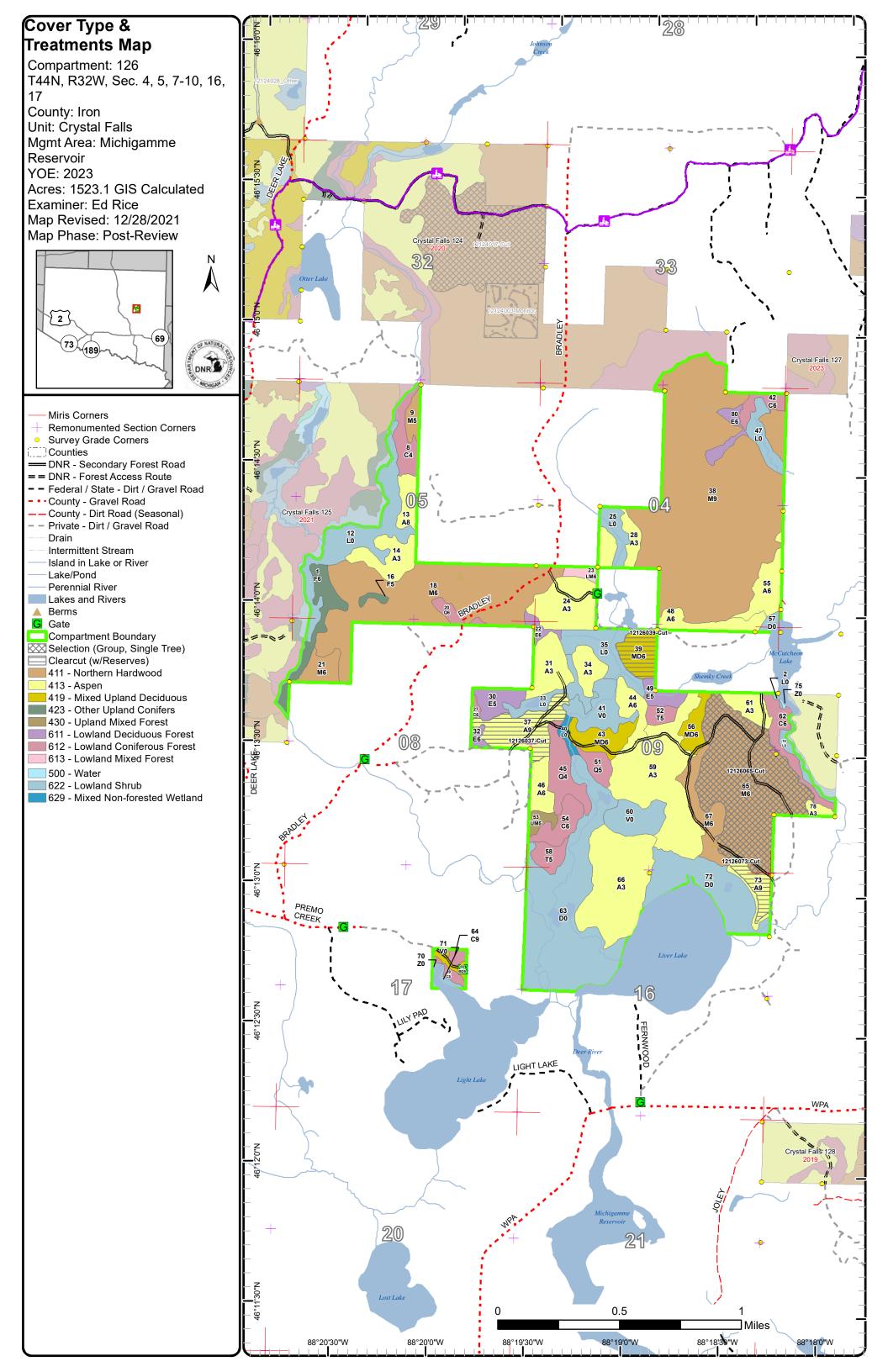
The following reports from the Inventory are attached:

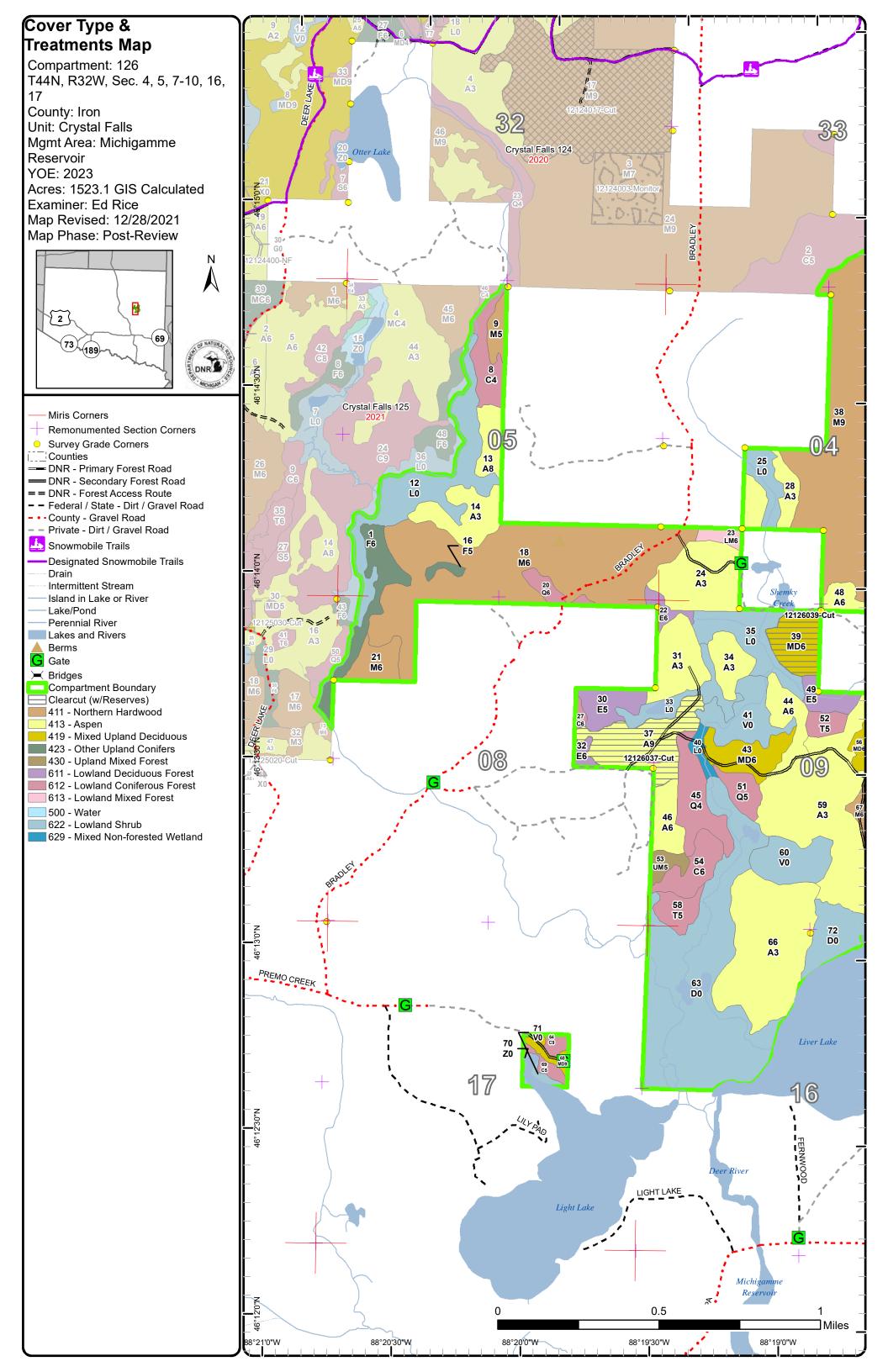
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

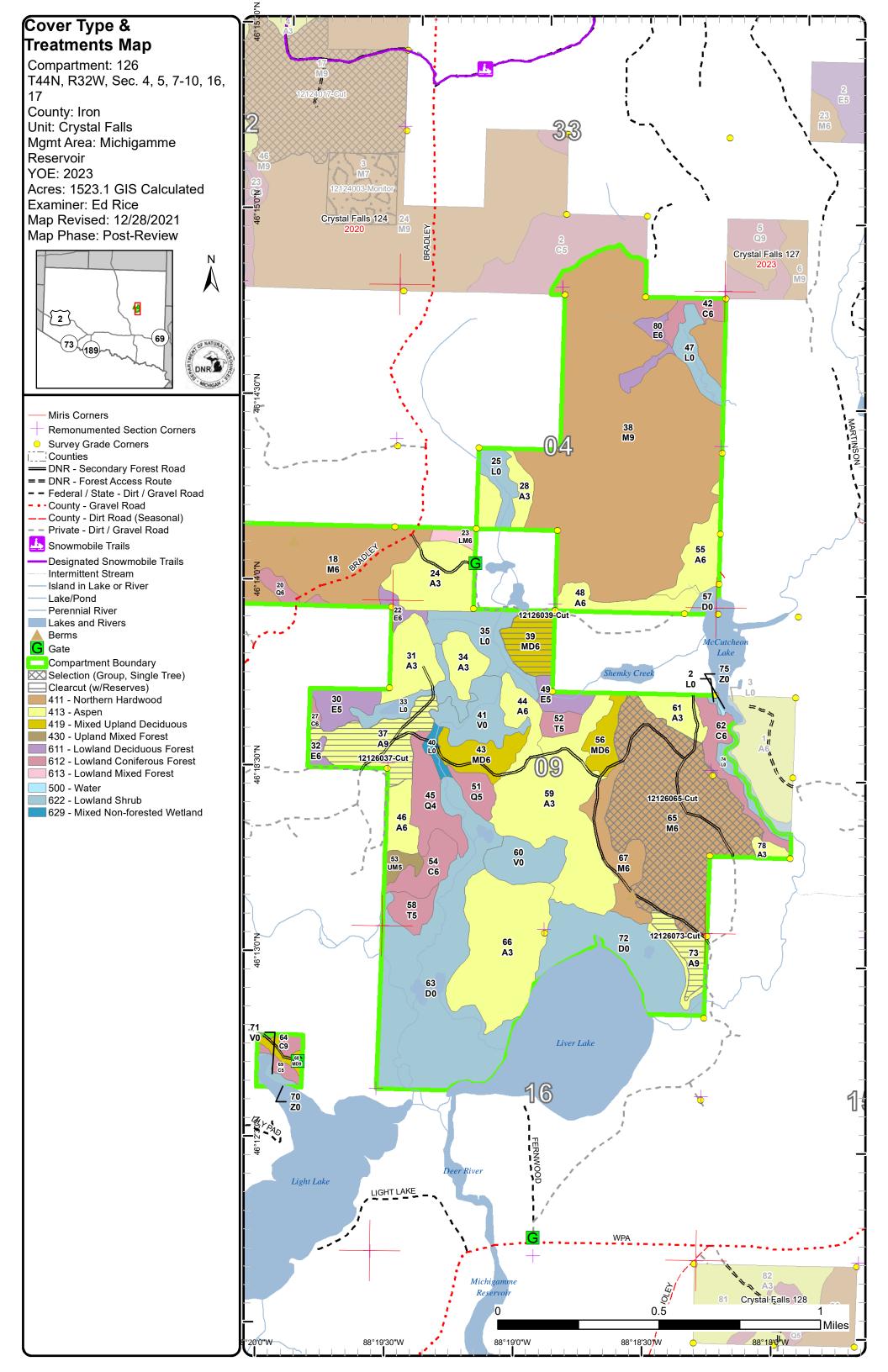
The following information is displayed, where pertinent, on the attached compartment maps:

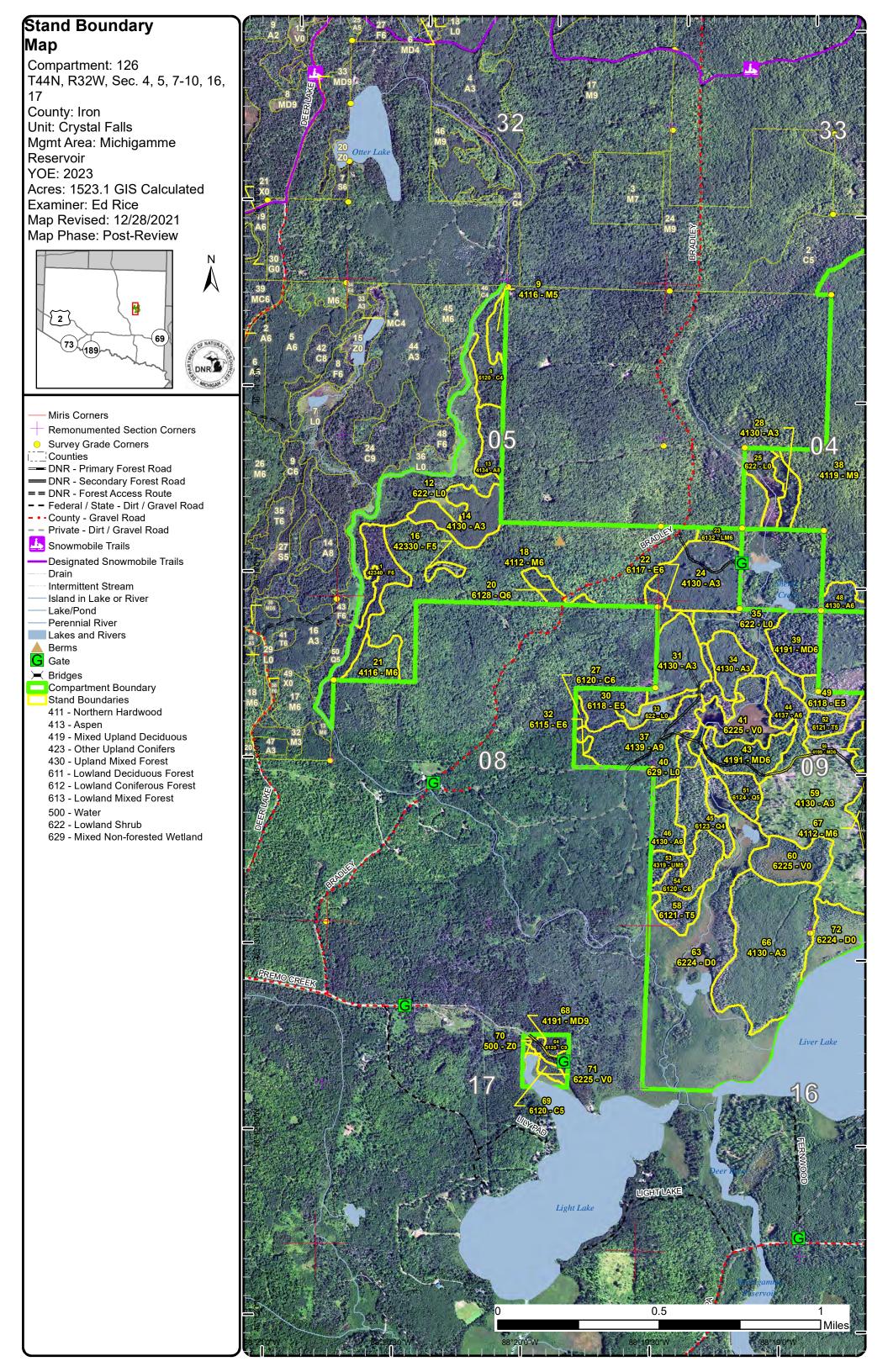
Base feature information, stand boundaries, cover types, and numbers Proposed treatments Site condition boundaries

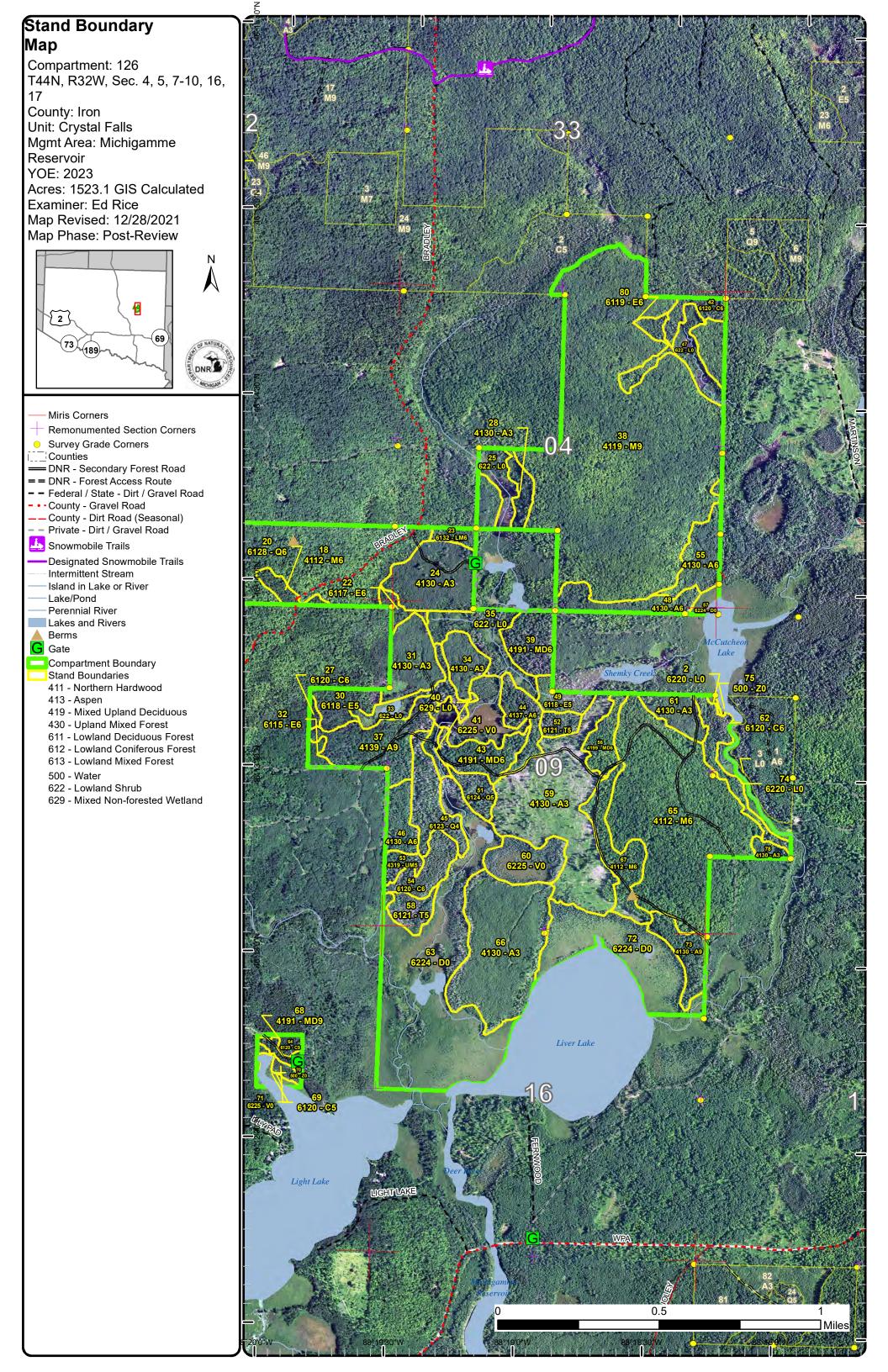
Details on the road access system

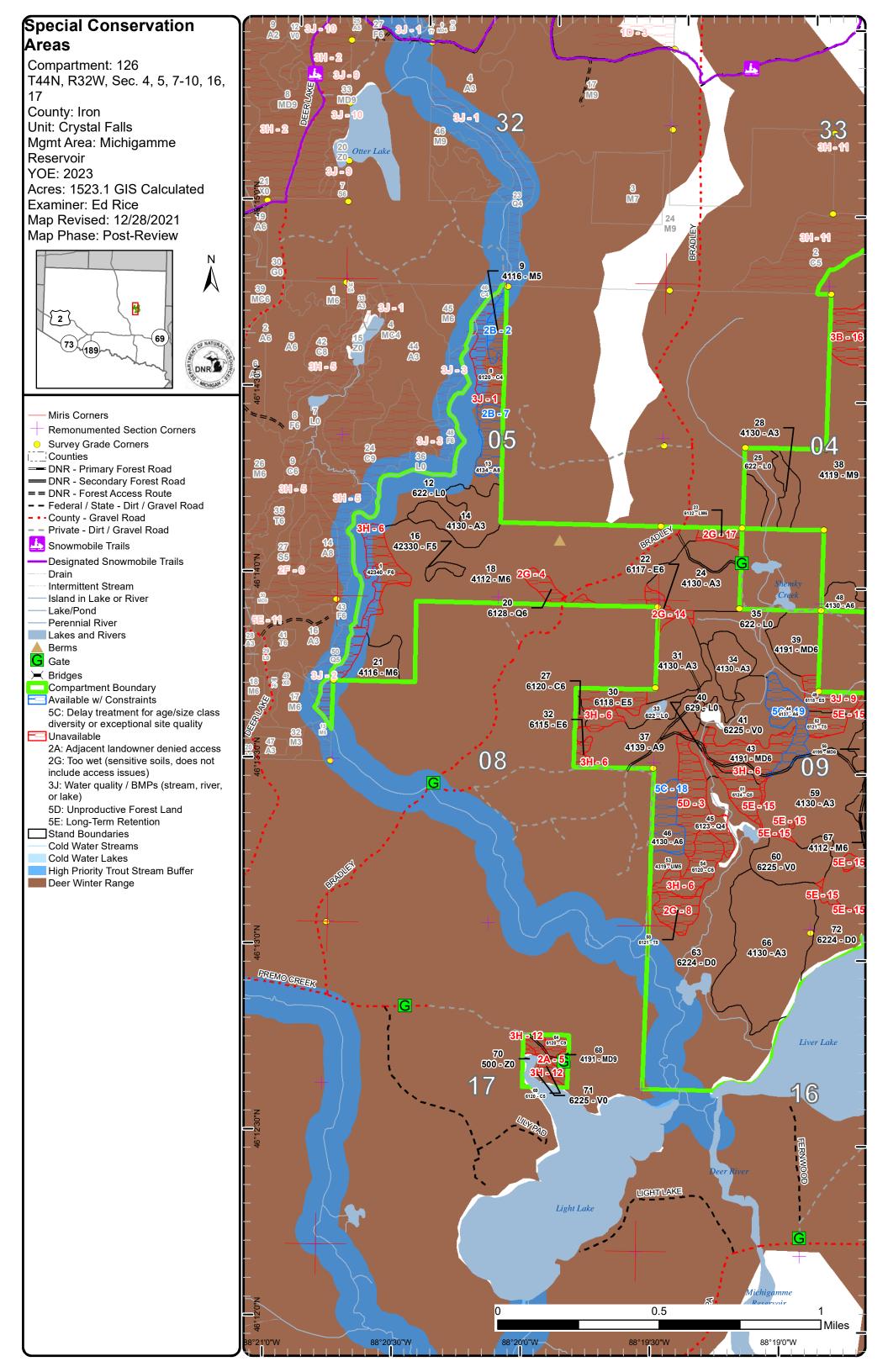


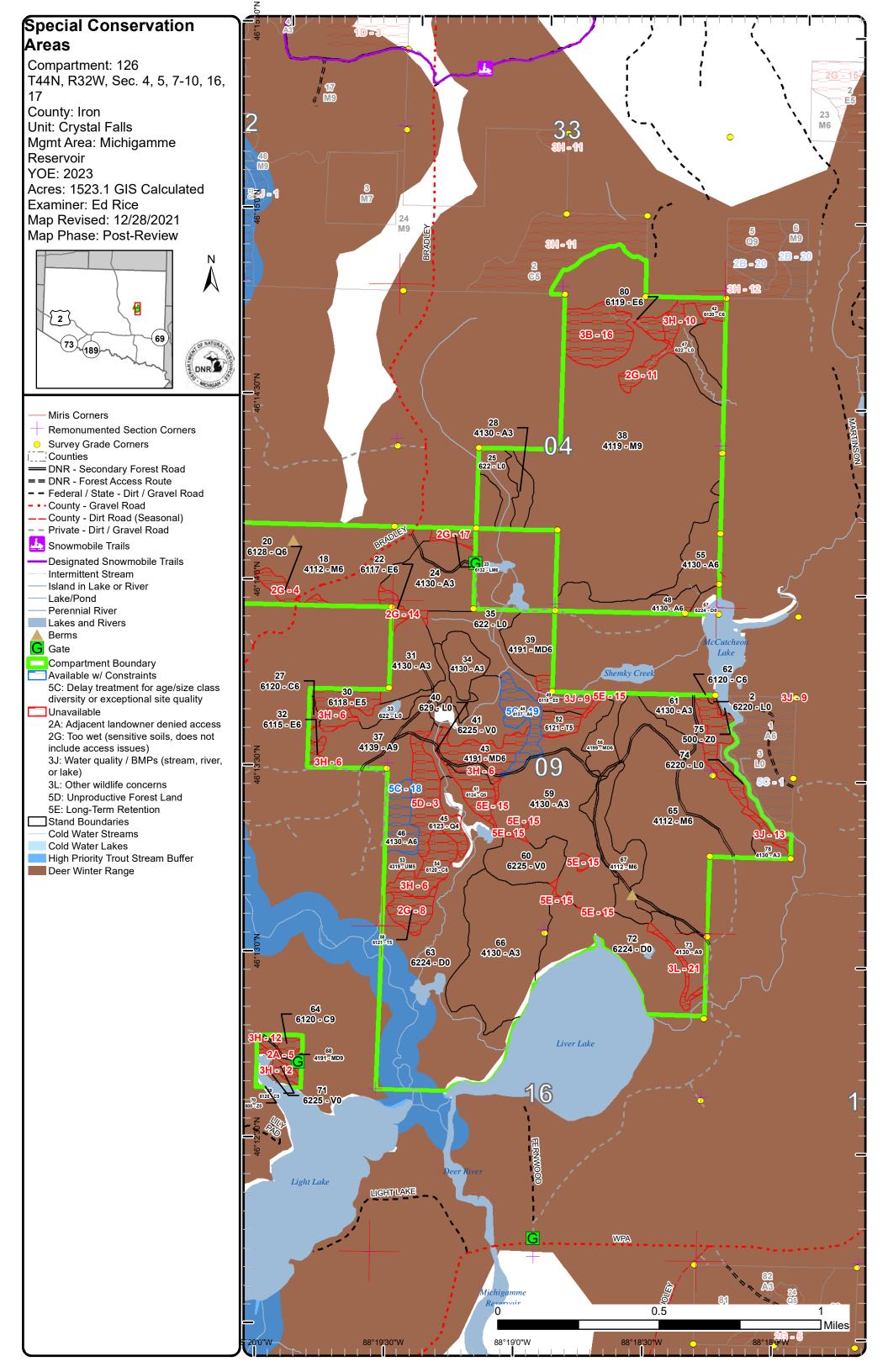












## Report 1 – Total Acres by Cover Type and Age Class

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment 126 Year of Entry 2023



## Age Class

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Aspen	0	79	117	66	0	33	25	0	15	32	10	0	0	0	0	0	0	0	374
Bog	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
Cedar	0	0	0	0	0	0	0	0	3	0	3	15	0	0	36	0	0	0	57
Lowland Conifers	0	0	0	0	0	0	20	0	14	0	0	0	0	0	0	0	0	0	34
Lowland Deciduous	0	0	0	0	0	0	8	15	12	0	0	0	0	0	0	0	0	0	35
Lowland Mixed Forest	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Lowland Shrub	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114
Mixed Upland Deciduous	0	0	0	0	0	0	16	11	17	0	0	4	0	0	0	0	0	0	48
Northern Hardwood	0	0	0	0	0	0	17	283	0	0	0	0	0	0	0	0	0	289	589
Tamarack	0	0	0	0	0	0	0	9	6	0	0	0	0	0	0	0	0	0	15
Treed Bog	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5
Upland Spruce/Fir	0	0	0	0	0	0	2	20	0	0	0	0	0	0	0	0	0	0	22
Water	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	340	79	117	66	0	33	88	342	67	37	13	19	0	0	36	0	0	289	1523



## **Report 2 – Treatment Summary**

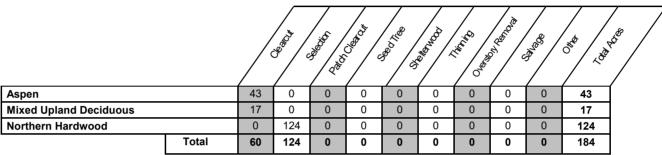
Crystal Falls Mgt. Unit Year of Entry: 2023

#### **Acres of Harvest**

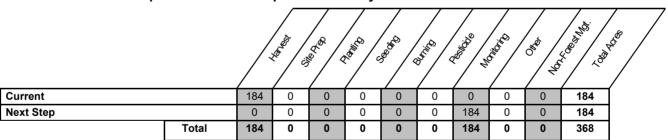
Compartment 126
Total Compartment Acres: 1,523

Commercial Harvest - 184 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

## **Cover Type by Harvest Method**



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



а n d

**Treatment** Name

Acres

Stand CoverType

Size Density

Stand Age

BA **Treatment** Range Type

**Treatment** Method

Cover Type Objective

Compartment: 126

Year of Entry: 2023

Age Structure Habitat Cut

### **Approved Treatments:**

12126037-Cut 32.0 4139 - Aspen, Sawtimber Unspec Clearcut with 4319 - Mixed No Harvest Even-Aged Mixed Deciduous Well ified Retention Upland Forest

Prescription remove merchantable aspen, w birch, spruce, balsam fir, r maple, cherry. where available leave at least 1 w birch and/or cherry per cruise point. do not cut y birch, b ash, w pine, r pine, cedar, or hemlock. protect/buffer any vernal areas found during sale set up. protect Specs:

advanced sapling regeneration

Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

Acceptable upland mixed, aspen, maple, spruce/fir

Regen:

very little understory, aspen is mature, areas with higher component of w birch, yet aspen still present. larger w spruce is mainly dead, very **Other** 

scattered r pine, w pine, cherry S end has an inclusion of smaller aspen 7 - 9" dbh Comment:

Site Condition

Proposed Start Date: 10/1 /2022

12126039-Cut Poletimber 77 Clearcut with 4319 - Mixed 17.0 4191 - Mixed 51-80 Harvest Nο Even-Aged **Upland Deciduous Upland Forest** Well Retention

with Conifer

Prescription remove merchantable aspen, maple, w birch, cherry, tamarack, spruce and balsam fir. where available, leave 1 w birch and/or cherry per cruise plot. do not cut hemlcok, w pine, r pine or oak. if any vernal areas are found, protect/buffer. protect as much as possible advanced Specs:

Monitoring, Natural Regen (Intermediate) Next Step

Treatments:

Acceptable upland mixed, aspen, maple spruce/fir

Regen:

mature aspen. larger spruce has mainly fallen out. W end of stand heavier to w birch. scattered windthrow throughout. widely scattered <u>Other</u>

large w pine, cherry and tamarack. good winter deer usage. Comment:

Site Condition

Proposed Start Date: 10/1 /2022

4112 - Maple. 67 111-Harvest Single Tree 411 - Northern 12126065-Cut 123 7 Poletimber Uneven-Nο Beech, Cherry Well 140 Selection Hardwood Aged

Association

Prescription Thin to 70 BA. concentrate removals on high risk trees that will not survive, or will decrease in value to the next cutting cycle (20 yrs), financially mature sawtimber/yeneer, and if needed to reduce BA to target, thin from below. Keep and promote all age/size classes and

species in the residual stand. Keep large crowned h maple component for viable seed source. Do not cut oak, y birch, basswood, cedar or w

pine. buffer any vernal areas found by not marking within one tree length.

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Acceptable N hardwoods

Regen: **Other** 

Specs:

Fair to good quality hardwoods. open understory. areas of large boulders and rock. scattered oaks. BA 110

Comment:

Site Condition

Proposed Start Date: 10/1 /2022

Crystal Falls Mgt. Unit Report 3 -- Treatments Compartment: 126 S Year of Entry: 2023 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat n Method Objective Density Name CoverType Age Range Type Structure Cut d 72 Even-Aged 73 12126073-Cut 11.4 4130 - Aspen Sawtimber Unspec Harvest Clearcut with 4319 - Mixed No Well ified Retention **Upland Forest** <u>Prescription</u> remove merchantable aspen, maple, w birch, spruce, balsam fir. where available, leave at least one w birch and/or cherry per cruise point. do not cut oak, w pine, r pine, cedar. buffer adjacent lowlands - leave travel and cover corridor Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable upland mixed. aspen, maple, spruce/fir Regen: **Other** mature aspen, fairly good h maple saplings/poles on higher hillside along the road. Aspen in SE corner of stand is of an older age class but Comment: will hold heavily used by wintering deer, notably in transition area

Total Treatment 184.1
Acreage Proposed:

Proposed Start Date: 10/1 /2022

Site Condition

Crystal Falls Mgt. Unit

Ed Rice : Examiner Year of Entry: 2023

Compartment: 126

Availa	ability for	Managemer	ıt											
Total	Acres	Acres Avail	Acres		Oomina	nt Site	Con	ditions	5					
Acres	Available	With Condition	Not Available		2B	5C	2A	2G	3B	3H	3J	3L	5D	5E
375	331	35	9	Aspen	10	25					0	3		6
43	43	0	0	Bog										
58	0	0	58	Cedar			0			30	28			
34	0	0	34	Lowland Conifers				6		8			20	
35	0	0	35	Lowland Deciduous				12		15	8			
4	0	0	4	Lowland Mixed Forest				4						
114	113	0	0	Lowland Shrub	0						0			
48	28	0	20	Mixed Upland Deciduous			4			16				
588	560	6	22	Northern Hardwood	6				22		0			
14	0	0	14	Tamarack				9			6			
180	180	0	0	Treed Bog										0
5	5	0	0	Upland Mixed Forest										
23	2	0	20	Upland Spruce/Fir						20				
3	3	0	0	Water							0			
1,523	1,265	41	217	Total Forested Acres	16	25	4	30	22	90	42	3	20	6
	83%	3%	14%	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.

1 <b>U</b>	Jnavailable						
		3J: Water quality / BMPs (stream, river, or lake)	14	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comm	ments:						
2 ,	Available	2B: Unknown if access through adjacent landowner(s) is possible	6	Unspecified	Unspecified	Unspecified	Unspecified
Comr	ments:						

Crystal Falls Mgt. Unit

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3	Unavailable	5D: Unproductive Forest Land	20	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	5D: Unproductive Forest Land	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	2A: Adjacent landowner denied access	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	75	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Available	2B: Unknown if access through adjacent landowner(s) is possible	10	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: road needed throug	gh private land, stand bounded l	by priva	ate and swamp			

Crystal Falls Mgt. Unit

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8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
9	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	14	5D: Unproductive Forest Land	Unspecified	Unspecified	Unspecified
	Comments:						
10	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
11	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: springs with boulde	ers					
12	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Crystal Falls Mgt. Unit

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14 <b>Com</b>	unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	
<b>Con</b>		soils, does not include	4	Unspecified	Unspecified	Unspecified	
15	mments:					Chopodilou	Unspecified
Com	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
	mments:						
16	Unavailable	3B: Threatened, endangered, and special concern species	22	Unspecified	Unspecified	Unspecified	Unspecified
Com	nments:						
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
Com	nments:						
18	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
	nments: I to harvest with	n stand 37 next cutting cycle					

Crystal Falls Mgt. Unit

Ed Rice : Examiner

19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
_	comments: parvest next cuttin	g cycle with stand 56					
21	Unavailable	3L: Other wildlife concerns	3	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	<b>Comments:</b> ravel/transition co	rridor					

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: 126
Year of Entry 2023



## 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.

Conservati Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions stocked trout populations and those of other coldwater fish specific conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	ies to persist from year to year. Suitable ey are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish specified 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.	ies (e.g., slimy sculpin) to persist from ese 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 effe as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian cts on water quality and quantity, as well



Stand	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
1	42340 - Upla	and Spruce	/Fir I	Poletimb	er Well	20.4	60	81-110	N/A		mix of upland transitioning to lowland conifer and river floodplain.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	very heavy winter deer use.
	White Spruce	45	Log/Pole	10	60	Ва	lsam Fir	Medium	10 - 20 feet	Sapling	voly heavy whiter door doo.
	Balsam Fir	45	Pole	8							
	Quaking Aspen	10	Log/Pole	12							
2	6220 - A	Alder/willow		Nonsto	cked	0.6	0 (	Unspecified	No		heavy tag alder
8	6120 - Lo	wland Ceda	ar F	Poletimb	er Poor	14.0	135 l	Unspecified	N/A		scattered large w. spruce. thick alder. pockets of nearly pure cedar with
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	individual cedar scattered throughout. trace amounts of y. birch and w pine
	Red Maple	10	Pole	8		Re	ed Maple	Low	5 - 10 feet	Sapling	Pille
	Paper Birch	5	Pole	8		Ва	Isam Fir	Medium	5 - 10 feet	Sapling	
	Balsam Fir	10	Pole/Sapling	6		Ta	ag Alder	High	5 - 10 feet	Tall Shrub	
	Black Spruce	20	Pole	8	60						
No	orthern White Cedar	55	Pole/Log	10	135						
9	4116 - Mixed N.	Hardwood -	- Aspen Po	oletimbei	Mediun	n 6.2	58	51-80	N/A		fairly heavy red and hard maple saplings with pockets of good aspen
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	saplings in more open areas. scattered w. birch snags. aspen has about all fallen out of the stand. heavy windthrow
	Red Maple	70	Pole/Log	9	58	Sug	gar Maple	High	10 - 20 feet	Sapling	an idilon out of the statia. Heavy Wilderich
	Quaking Aspen	20	Log	12		Quak	king Aspen	High	5 - 10 feet	Sapling	
	White Spruce	5	Pole	7		Whi	te Spruce	Low	< 5 feet	Sapling	
No	orthern White Cedar	5	Log	12		Blad	ck Cherry	Medium	5 - 10 feet	Sapling	
12	622 - Lov	vland Shrub	)	Nonsto	cked	46.2	l	Unspecified	No		swamp grass openings interspersed among thick tag alder. widely scattered pockets of cedar, spruce, fir, and tamarack. Deer R. runs through stand. stand was heavily influenced by old logging dam activity.
13	4134 - Asp	en, Spruce/	Fir Sa	awtimber	Medium	n 10.2	90 l	Unspecified	N/A		Aspen 6 - 7 sticks tall. w spruce 4 - 5 sticks. high % of windthrow on
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	spruce/fir and aspen. heavy deer browse on r. maple seedlings/saplings
	Red Maple	5	Pole	7		Re	d Maple	Low	< 5 feet	Sapling	
	Paper Birch	5	Pole	7		Ва	lsam Fir	Low	5 - 10 feet	Sapling	
	Quaking Aspen	70	Log	14	90	Hazelr	nut (Beaked)	Low	< 5 feet	Tall Shrub	
	Balsam Fir	10	Pole	7							
	White Spruce	10	Pole/Log	9							
14	4130	- Aspen		Sapling		19.7	25 l	Unspecified	N/A		almost a pure aspen stand. widely scattered spruce/fir
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
					~-	D -		1	4 F 64	0 !:	
	Quaking Aspen	95	Sapling/Pole	3	25	ва	lsam Fir	Low	< 5 feet	Sapling	

Report 7 - Stands



Stan	d Level 4 Co	over Type		Size Der	nsity	Acres Stand Age	BA Range	Managed S	Site	General Comments
16	42330 -	Upland Fir	P	Poletimber		n 2.2 50	Unspecified	N/A		old landing area growing in. pockets of A3 with scattered low quality, open grown maple and r. oak. scattered w. birch saplings. raspberries
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Speci	es Density	Avg. Height	Size	open grown mapic and it. oak. Scattered w. birch sapinings. Taspbernes
	Sugar Maple	20	Log	12		Quaking Aspen	High	10 - 20 feet	Sapling	
	Red Oak	5	Log	14		Balsam Poplar	Low	10 - 20 feet	Sapling	
	Balsam Fir	75	Pole	8	50	White Pine	Low	10 - 20 feet	Sapling	
18	4112 - Maple, Beec					136.4 65	81-110	N/A		high stocking of h. maple saplings in areas. majority of stand has understory of dense ironwood saplings. very widely scattered w. pine
	Canopy Species	% Cover	Size Class			Sub-Canopy Speci	es Density	Avg. Height	Size	sawtimber. Past thinning reduced areas of the stand to 40 - 50 BA,
	Sugar Maple	60	Pole/Log	10	65	Sugar Maple	Medium	5 - 10 feet	Sapling	extremely thick component of ironwood, cherry and h. maple saplings.
	Red Maple	20	Pole	8		White Spruce	Low	< 5 feet	Sapling	current BA 90
	Yellow Birch	5	Pole/Log	10		Ironwood	High	10 - 20 feet	Sapling	
	Basswood	10	Log/Pole	12		Leatherwood	Medium	< 5 feet	Tall Shrub	
	Red Oak	5	Log	16						
20	6128 - Lowland ( Deci	Coniferous iduous	, Mixed	Poletimbe	er Well	5.6 78	Unspecified	N/A		scattered basswoood. good cedar/hemlock at N. end of the stand. widely scattered tag alder. wet stand
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Speci	es Density	Avg. Height	Size	
	Red Maple	15	Pole/Log	10		Yellow Birch	Low	10 - 20 feet	Sapling	
	Yellow Birch	5	Pole/Log	10		Balsam Fir	High	10 - 20 feet	Sapling	
	Balsam Fir	5	Pole	8		Black Spruce	Medium	5 - 10 feet	Sapling	
No	orthern White Cedar	30	Log	12		Black Ash	High	10 - 20 feet	Sapling	
	Hemlock	30	Log	14	78					
	Black Ash	15	Pole	8						
21	4116 - Mixed N.	Hardwood	- Aspen	Poletimbe	er Well	11.0 50	81-110	N/A		fair form, W end of stand has higher % of aspen
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Speci	es Density	Avg. Height	Size	100 BA
	Sugar Maple	30	Pole/Log	10		Sugar Maple	Medium	10 - 20 feet	Sapling	
	Red Maple	30	Pole	8	50	Red Maple	Low	10 - 20 feet	Sapling	
	Basswood	10	Pole	8		White Spruce	Low	< 5 feet	Sapling	
	Red Oak	5	Log	14		Ironwood	Low	< 5 feet	Sapling	
	Paper Birch	5	Log	12						
	Quaking Aspen	20	Log/Pole	12	60					
22	6117 - Lowland I Coni	Deciduous iferous	, Mixed	Poletimbe	er Well	4.4 62	Unspecified	N/A		SW corner had C6 inclusion. good amounts of b. ash saplings (E3)
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Speci	es Density	Avg. Height	Size	
	Red Maple	20	Pole	8		Black Spruce	Low	5 - 10 feet	Sapling	
	Yellow Birch	10	Pole	8		Black Ash	High	< 5 feet	Sapling	
	Paper Birch	20	Pole/Log	8		Tag Alder	Medium	5 - 10 feet	Tall Shrub	
	Black Spruce	5	Pole	8			1		1	
				-						
No	orthern White Cedar	15	Pole/Log							



Stand	d Level 4 Co	over Type	)	Size De	ensity	Acres	Stand Age E	BA Range	Managed Site		General Comments
23	6132 - Mixed Lowla	nd Forest	with Cedar	Poletimb	er Well	4.2	60 U	Inspecified	N/A		W. side heavier to cedar. very wet ground
	Canopy Species	% Cover	r Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	Yellow Birch	5	Pole	7		Bals	sam Fir	High	< 5 feet	Sapling	
	Balsam Fir	10	Pole	7		Tag	g Alder	Full	5 - 10 feet	Tall Shrub	
No	orthern White Cedar	40	Pole/Log	10							
	Black Ash	45	Pole/Sapling	g 7	60						
24	4130	- Aspen		Sapling		31.8	25 U	Inspecified	N/A		A3, 3-5" dbh, scattered trees just moving into poletimber size class. associated large diameter r. pine and w. pine, scattered w spruce, fir
	Canopy Species	% Cover	r Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	understory. H. maple stump sprouts. associated hazel understory
	Quaking Aspen	85	Sapling/Pole	e 3	25	Suga	ar Maple	Medium	5 - 10 feet	Sapling	
	White Pine	10	XLog	18		Bals	sam Fir	Medium	5 - 10 feet	Sapling	
	Red Pine	5	XLog	18		White	e Spruce	Medium	5 - 10 feet	Sapling	
						Whi	te Pine	Low	< 5 feet	Sapling	
25	622 - Low	land Shru	b	Nonst	ocked	10.4	U	Inspecified	No		tag alder/beaver pond with creek. pockets of half - drowned cedar
27	6120 - Lov	vland Ced	ar !	Poletimb	er Well	1.7	105 U	Inspecified	N/A		good cedar canopy. good winter deer usage
	Canopy Species	% Cover	r Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	Balsam Poplar	10	Pole/Log	10		Bals	sam Fir	Medium	5 - 10 feet	Sapling	
	Balsam Fir	5	Pole/Sapling	g 8		Bla	ck Ash	High	5 - 10 feet	Sapling	
	Black Spruce	5	Pole/Sapling	g 8		Tag	g Alder	High	5 - 10 feet	Tall Shrub	
No	orthern White Cedar	60	Log/Pole	14	105						
	Black Ash	20	Pole	8							
28	4130	- Aspen		Sapling		14.1	25 U	Inspecified	N/A		scattered aspen just moving into poletimber size class. along edges of beaver pond where aspen had been cut off by beaver, pin cherry and
	Canopy Species	% Cover	r Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	heavier hazel predominate. Much of previously N end of the stand is
	Quaking Aspen	90	Sapling/Pole		25	Hazelnı	ıt (Beaked)	Medium	< 5 feet	Tall Shrub	converted to beaver dam
	Balsam Fir	5	Sapling	2							
	Pin Cherry	5	Sapling	3							
30	6118 - Lowland De	eciduous v	vith Cedar Po			m 12.4	72 U	Inspecified	N/A		good cedar 8 - 16" dbh. areas heavy to b ash saplings. thick tag alder understory. far W end has slightly higher ground
	Canopy Species	% Cover	r Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	understory. Tal W end has slightly higher ground
	Red Maple	20	Pole/Log	10		Bals	sam Fir	Medium	5 - 10 feet	Sapling	winter deer use
	Yellow Birch	15	Log/Pole	12		Black	Spruce	Medium	5 - 10 feet	Sapling	
	Balsam Fir	5	Pole/Sapling	g 7		Bla	ck Ash	High	5 - 10 feet	Sapling	
	Black Spruce	5	Pole/Sapling	g 7		Та	g Alder	Full	5 - 10 feet	Tall Shrub	
No	orthern White Cedar	20	Log/Pole	12							
- 140				12							

Report 7 - Stands



Stand	d Level 4 C	over Type		Size Density	Acres	Stand Age	BA Range	Managed 9	Site	General Comments
31	4130	- Aspen		Sapling Well	Vell 21.0	16	Unspecified	N/A		widely scattered w pine and b cherry. heavy winter deer usage in riparial
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	buffers
	Quaking Aspen	95	Sapling	3 16	Hazelr	nut (Beaked)	Medium	< 5 feet	Tall Shrub	
	White Pine	2	Pole	8			,			
	Black Cherry	3	Pole	8						
32	6115 - Lo	owland Ash	1	Poletimber Well	3.0	62	Unspecified	N/A		wet ground, heavy b ash saplings
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Quaking Aspen	10	Pole/Log	10	Ва	alsam Fir	Medium	5 - 10 feet	Sapling	
	Balsam Poplar	10	Pole/Log	10	ВІ	lack Ash	High	5 - 10 feet	Sapling	
	Black Ash	80	Pole/Sapling	g 7 62	Ta	ag Alder	Full	5 - 10 feet	Tall Shrub	
33	622 - Lov	vland Shrut	)	Nonstocked	12.8		Unspecified	No		tag alder. scattered b. cherry, aspen, fir/spruce. wet drainage with intermittant creek
34	. 4130 - Aspen			Sapling Well	11.8	11.8 16 Un		N/A		heavy winter deer usage in riparian buffer strips
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Quaking Aspen	94	Sapling	3 16	Hazelr	nut (Beaked)	Low	< 5 feet	Tall Shrub	
	Balsam Fir	2	Sapling	2						
	White Spruce	2	Sapling	2						
	Black Cherry	2	Pole	7						
35	622 - Lov	vland Shrub	)	Nonstocked	22.9		Unspecified	No		series of old beaver dams and meadows. scattered pockets of cedar, b spruce, and tamarack. Shemky Creek runs through stand
37	4139 - Aspen,		Sawtimber Well		32.0 82 Uns		N/A		very little understory, aspen is mature, areas with higher component of w birch, yet aspen still present. larger w spruce is mainly dead, very	
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	scattered r pine, w pine, cherry S end has an inclusion of smaller asper 7 - 9" dbh
	Red Maple	30	Log/Pole	12	Qual	king Aspen	Low	< 5 feet	Sapling	
	Paper Birch	10	Pole	8	Ва	alsam Fir	Medium	5 - 10 feet	Sapling	
	Quaking Aspen	45	Log	12 82	Re	ed Maple	Medium	10 - 20 feet	Sapling	
	Balsam Fir	5	Pole	7						
	White Spruce	5	Log	12						
	Black Cherry	5	Pole/Log	10						

Report 7 - Stands



	Level 4 C	over Type		Size De	,	Acres	Stand Age I		Managed S		General Comments	
38	4119 - Mixed No	Sawtimb	er Well	288.6	82	81-110	N/A		good h maple regen, saplings 20 - 25' in NE part of stand - avoid during			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	harvest. Fair - good form with some veneer. sawtimber 12 - 24" dbh 1 - 3 log heights. widely scattered large w pine. areas of small boulders. N	
	Sugar Maple	45	Pole/Log	10	82	Suga	ır Maple	Medium	>20 feet	Pole	central part of stand upland drainages. access is through private. 100	
	Red Maple	20	Pole/Log	10		Iror	nwood	Medium	5 - 10 feet	Sapling	BA average	
	Yellow Birch	5	Pole	10							•	
	Basswood	5	Pole/Log	10								
	Red Oak	10	Log	16								
	Hemlock	5	Log	14								
	Black Cherry	10	Log	12								
39	4191 - Mixed Upla Co	and Deciduo onifer	ous with F	Poletimb	er Well	17.0	77	51-80	N/A		mature aspen. larger spruce has mainly fallen out. W end of stand heavier to w birch. scattered windthrow throughout. widely scattered	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	large w pine, cherry and tamarack. good winter deer usage.	
	Red Maple	30	Pole/Log	8		Hazelnu	it (Beaked)	Medium	< 5 feet	Tall Shrub		
	Paper Birch	10	Pole/Log	10								
(	Quaking Aspen	35	Log/Pole	12	77							
	Balsam Fir	15	Pole	7								
40	White Spruce 629 - Mixed nor	10 n-forested w	Log/Pole /etland	12 Nonsto	ocked	3.6	l	Jnspecified	No		tag alder along creek, partly open old beaver meadows. widely scattered	
	629 - Mixed nor					3.6		Unspecified Unspecified	No No		tag alder along creek, partly open old beaver meadows. widely scattered poor b spruce and cedar at edges  open bog. widely scattered stunted b spruce sapling sized trees.	
40	629 - Mixed nor	n-forested w	vetland	Nonsto	ocked		l	•			open bog. widely scattered stunted b spruce sapling sized trees.  good cedar. small deer "yard area" for thermal cover - good winter deer	
40 41 42	629 - Mixed nor	n-forested w 5 - Bog wland Ceda	vetland	Nonsto Nonsto	ocked	20.9	l	Unspecified Unspecified	No	Size	open bog. widely scattered stunted b spruce sapling sized trees.	
40 41 42	629 - Mixed nor 6225 6120 - Lov	n-forested w 5 - Bog wland Ceda	vetland	Nonsto Nonsto	er Well	20.9 7.9 <b>Sub-Can</b> e	130 L	Unspecified Unspecified	No N/A	Size Tall Shrub	open bog. widely scattered stunted b spruce sapling sized trees.  good cedar. small deer "yard area" for thermal cover - good winter deer usage. W end of stand heavy to b ash and balm. multiple drainages.	
40 41 42	629 - Mixed nor 6225 6120 - Lov	n-forested w 5 - Bog wland Ceda % Cover	vetland	Nonsto	er Well	20.9 7.9 <b>Sub-Can</b> e	130 l	Unspecified Unspecified Density	No N/A Avg. Height		open bog. widely scattered stunted b spruce sapling sized trees.  good cedar. small deer "yard area" for thermal cover - good winter deer usage. W end of stand heavy to b ash and balm. multiple drainages.	
40 41 42	629 - Mixed nor 6225 6120 - Lov Canopy Species Yellow Birch	n-forested w 5 - Bog wland Ceda % Cover 5	vetland  ir F Size Class Pole	Nonsto	er Well	20.9 7.9 <b>Sub-Can</b> e	130 l	Unspecified Unspecified Density	No N/A Avg. Height		open bog. widely scattered stunted b spruce sapling sized trees.  good cedar. small deer "yard area" for thermal cover - good winter deer usage. W end of stand heavy to b ash and balm. multiple drainages.	
40 41 42	629 - Mixed nor 6225 6120 - Lov Canopy Species Yellow Birch Balsam Poplar	n-forested w 5 - Bog wland Ceda % Cover 5 20	vetland  ir F Size Class Pole Pole/Log/Sap	Nonsto	er Well	20.9 7.9 <b>Sub-Can</b> e	130 l	Unspecified Unspecified Density	No N/A Avg. Height		open bog. widely scattered stunted b spruce sapling sized trees.  good cedar. small deer "yard area" for thermal cover - good winter deer usage. W end of stand heavy to b ash and balm. multiple drainages.	
40 41 42	629 - Mixed nor 6225 6120 - Lov Canopy Species Yellow Birch Balsam Poplar Balsam Fir	n-forested w 5 - Bog wland Ceda % Cover 5 20 5	vetland  Size Class Pole Pole/Log/Sap Pole	Nonsto	er Well Age	20.9 7.9 <b>Sub-Can</b> e	130 l	Unspecified Unspecified Density	No N/A Avg. Height		open bog. widely scattered stunted b spruce sapling sized trees.  good cedar. small deer "yard area" for thermal cover - good winter dee usage. W end of stand heavy to b ash and balm. multiple drainages.	
40 41 42	629 - Mixed nor 6225 6120 - Low Canopy Species Yellow Birch Balsam Poplar Balsam Fir thern White Cedar Black Ash 4191 - Mixed Upla	m-forested when the state of th	vetland  Size Class Pole Pole/Log/Sap Pole Log/Pole Pole	Nonsto	er Well Age 70 130	20.9 7.9 <b>Sub-Can</b> e	130 l <b>opy Species</b> g Alder	Unspecified Unspecified Density	No N/A Avg. Height		open bog. widely scattered stunted b spruce sapling sized trees.  good cedar. small deer "yard area" for thermal cover - good winter deer usage. W end of stand heavy to b ash and balm. multiple drainages.  w birch is healthy overall, scattered top die back, notably in E end of stand, 3 - 4 stick heights. fir/spruce saplings in small pockets. larger w	
40 41 42 Nort	629 - Mixed nor 6225 6120 - Low Canopy Species Yellow Birch Balsam Poplar Balsam Fir thern White Cedar Black Ash 4191 - Mixed Upla	n-forested was 5 - Bog was and Ceda   % Cover   5	vetland  Size Class Pole Pole/Log/Sap Pole Log/Pole Pole	Nonsto  Poletimb  DBH  10  0 10  7  12  7	er Well Age 70 130	7.9 Sub-Cane Tag	130 l <b>opy Species</b> g Alder	Unspecified Unspecified Unspecified Unspecified Unspecified	No N/A Avg. Height 5 - 10 feet		open bog. widely scattered stunted b spruce sapling sized trees.  good cedar. small deer "yard area" for thermal cover - good winter deer usage. W end of stand heavy to b ash and balm. multiple drainages.  w birch is healthy overall, scattered top die back, notably in E end of stand, 3 - 4 stick heights. fir/spruce saplings in small pockets. larger w spruce largely dead. Aspen 8 - 12" dbh. far N end of stand heavier to	
40 41 42 Nort	629 - Mixed nor 6225 6120 - Lov Canopy Species Yellow Birch Balsam Poplar Balsam Fir thern White Cedar Black Ash 4191 - Mixed Upla	n-forested was 5 - Bog was and Ceda   % Cover   5	vetland  Size Class Pole Pole/Log/Sap Pole Log/Pole Pole Dous with	Nonsto  Poletimb  DBH  10  0 10  7  12  7	er Well 70 130 er Well	7.9  Sub-Cane  16.1  Sub-Cane	130 L  opy Species  3 Alder	Unspecified Unspecified Unspecified Unspecified Unspecified	No N/A Avg. Height 5 - 10 feet N/A	Tall Shrub	open bog. widely scattered stunted b spruce sapling sized trees.  good cedar. small deer "yard area" for thermal cover - good winter deer usage. W end of stand heavy to b ash and balm. multiple drainages.  w birch is healthy overall, scattered top die back, notably in E end of stand, 3 - 4 stick heights. fir/spruce saplings in small pockets. larger w	
40 41 42 Nort	629 - Mixed nor 6225 6120 - Lov Canopy Species Yellow Birch Balsam Poplar Balsam Fir thern White Cedar Black Ash 4191 - Mixed Upla	n-forested w 5 - Bog  wland Ceda  % Cover 5 20 5 60 10  and Decidue onifer  % Cover	vetland  Size Class Pole Pole/Log/Sap Pole Log/Pole Pole pous with Size Class	Nonsto	er Well 130 er Well Age	7.9 Sub-Cane Tag	130 L opy Species 3 Alder 58 L opy Species	Unspecified Unspecified Unspecified Unspecified Unspecified Unspecified Unspecified	No N/A Avg. Height 5 - 10 feet  N/A Avg. Height	Tall Shrub	open bog. widely scattered stunted b spruce sapling sized trees.  good cedar. small deer "yard area" for thermal cover - good winter deer usage. W end of stand heavy to b ash and balm. multiple drainages.  w birch is healthy overall, scattered top die back, notably in E end of stand, 3 - 4 stick heights. fir/spruce saplings in small pockets. larger w spruce largely dead. Aspen 8 - 12" dbh. far N end of stand heavier to	



Stand	d Level 4 C	Level 4 Cover Type			Size Density			Acres Stand Age BA Range			General Comments				
44	4137 - As	F	Poletimber Well		13.2	53	Unspecified			w birch 7 - 12" dbh, showing some top die back. aspen 4 - 6 sticks 6 -					
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Can	opy Species	s Density	Avg. Height	Size	12" dbh. very dense fir/spruce saplings along old road leading N into stand.				
	Red Maple	5	Pole	8		Bals	sam Fir	Medium	5 - 10 feet	Sapling	otana.				
	Paper Birch	35	Pole/Log	9	68	White	e Spruce	Medium	5 - 10 feet	Sapling					
	Quaking Aspen	50	Pole/Log	8	53	Hazelnı	ıt (Beaked)	Medium	< 5 feet	Tall Shrub					
	Balsam Fir	5	Pole	7		Pin	Cherry	Medium	< 5 feet	Sapling					
	White Spruce	5	Pole	7											
45	6123 - L	owland Fir	F	Poletimb	er Poor	20.2	50	Unspecified	N/A		small cedar groves 12 - 18" dbh, thick tag alder. smaller, higher ground				
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Can	opy Specie	s Density	Avg. Height	Size	inclusions holding w spruce, fir, aspen, w birch. these areas are not big enough for commercial harvest and the access problems, stand overall is				
	Balsam Poplar	20	Pole/Log	8		Balsa	m Poplar	Low	5 - 10 feet	Sapling	sparse with tag alder filling in between openings. good amounts of small				
	Balsam Fir	50	Pole	7	50	Bals	sam Fir	Medium	5 - 10 feet	Sapling	balm 5 - 7" dbh in areas.				
	Black Spruce	20	Pole	7		Black	Spruce	Medium	5 - 10 feet	Sapling					
No	orthern White Cedar	10	Log/Pole	12		Та	g Alder	Full	5 - 10 feet	Tall Shrub					
46	'				er Well	11.8	53	Unspecified	N/A		Aspen 5 - 6 sticks tall. w spruce largely dead. pockets of F3. small area of old windthrow on spruce/fir along W edge of stand - heavier hazel				
	Canopy Species	% Cover	Size Class	DBF	I Age	Sub-Can	opy Species	s Density	Avg. Height	Size	understory in this area.				
	Red Maple	5	Pole	8			sam Fir	Medium	5 - 10 feet	Sapling					
	Quaking Aspen	80	Pole/Sapling	7	53	White	e Spruce	Medium	5 - 10 feet	Sapling					
	Balsam Fir	15	Pole	8		Hazelnı	ıt (Beaked)	Medium	< 5 feet	Tall Shrub					
47	622 - Lov	vland Shrub	•	Nonst	ocked	11.6		Unspecified	No		heavy tag alder - old beaver meadows. creek runs through stand. Isolated pockets of cedar.				
48	4130	- Aspen	Aspen F		Poletimber Well		15.3 41 Unspecified		N/A		aspen 6 - 8" dbh, 3 - 4 sticks tall. scatted large w pine 18 - 22" dbh.				
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	s Density	Avg. Height	Size	heavier fir in transition area. fairly steep N. end - rock outcrops				
	Red Maple	5	Pole	5		Bals	sam Fir	Medium	5 - 10 feet	Sapling					
	Paper Birch	5	Pole/Sapling	7		White	e Spruce	Medium	5 - 10 feet	Sapling					
	Quaking Aspen	75	Pole	6	41	Hazelnı	ıt (Beaked)	Medium	< 5 feet	Tall Shrub					
	Balsam Fir	10	Pole/Sapling	7											
	White Pine	5	XLog	20											
49	6118 - Lowland Do	eciduous wi	th Cedar Po	letimbe	r Mediun	n 8.1	50	Unspecified	N/A		very wet - thick tag alder understory				
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Can	opy Specie	s Density	Avg. Height	Size					
	Balsam Fir	20	Pole/Log	5		Tag	g Alder	Full	5 - 10 feet	Tall Shrub					
		00	Dolo/Log	_			-		-						
No	orthern White Cedar	20	Pole/Log	8	50										

Crystal Falls Mgt. Unit



Stan	d Level 4 Co	over Type	S	Size De	nsity	Acres Stand Age I	BA Range	Managed S	Site	General Comments			
51	6124 - Lowla	'		Poletimber Medium			Unspecified	N/A		heavy tag alder. good b spruce, fir saplings 2 - 10' tall. scattered dead tamarack. occasional balm.			
	Canopy Species		Size Class		Age	Sub-Canopy Species		Avg. Height	Size				
	Paper Birch	2	Pole	7		Balsam Fir	Medium	5 - 10 feet	Sapling	winter deer use along transition area to uplands			
	Balsam Poplar	3	Pole	9		Black Spruce	Medium	5 - 10 feet	Sapling				
	Balsam Fir	30	Pole	8		Tag Alder	Full	5 - 10 feet	Tall Shrub				
	Black Spruce	35	Pole	8	71								
	Tamarack	30	Pole/Log	10									
52	6121 - 7	Tamarack	Pole	etimbei	Mediu	m 5.6 70 l	Unspecified	N/A		good tamarack 6 -12" dbh, 4 - 6 sticks tall. good associated b spruce 4			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	stick heights. very widely scattered cedar. thick tag alder understory in areas.			
	Black Spruce	10	Pole	7		Balsam Fir	Medium	10 - 20 feet	Sapling				
	Tamarack	90	Pole	8	70	Tag Alder	Full	5 - 10 feet	Tall Shrub				
53	4319 - Mixed	Upland Fo	rest Pole	etimbei	Mediu	m 5.1 80	51-80	N/A		Aspen 10 - 12" dbh in good shape. heavy windthrow several years ago on spruce/fir - heavy hazel in this area. very S end of stand the spruce/fir			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	has held.			
	Quaking Aspen	50	Pole/Log	10	80	Balsam Fir	High	5 - 10 feet	Sapling	The Hold.			
	Balsam Fir	20	Pole/Log	10		White Spruce	High	5 - 10 feet	Sapling				
	White Spruce	25	Log	12		Hazelnut (Beaked)	High	< 5 feet	Tall Shrub				
	Black Cherry	5	Pole	8					,				
54	6120 - Lowland Cedar Poletimber W					13.7 102 Unspecified N/A				good cedar. heavy winter deer usage for thermal cover. Heavy tag alde			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	along E edge of stand.			
	Balsam Fir	5	Pole	7		Balsam Fir	Medium	5 - 10 feet	Sapling				
	Black Spruce	10	Pole	8		Black Spruce	Low	< 5 feet	Sapling				
No	orthern White Cedar	85	Log/Pole	12	102	Tag Alder	High	5 - 10 feet	Tall Shrub				
55	4130	- Aspen	Po	oletimb			Unspecified	N/A		aspen 3 - 8" dbh, 3 - 5 sticks. heavy b ash saplings rock outcrop along W side with associated springs coming out of hill side			
	Canopy Species		Size Class		Age	Sub-Canopy Species	Density	Avg. Height	Size	With accordated opinings containing out of him olde			
	Quaking Aspen	95	Pole/Sapling	7	41	Balsam Fir	Low	10 - 20 feet	Sapling				
	White Spruce	5	Pole	8		Hazelnut (Beaked)	Low	< 5 feet	Tall Shrub				
56	4199 - Other Mixed	d Upland D	eciduous Po	oletimb	er Well	10.9 67	81-110	N/A		A6 M6, maple saplings throughout. Aspen is 7 - 9" dbh. areas of rock outcrop in N 1/2.			
	Canopy Species	% Cover	Size Class		Age	Sub-Canopy Species	Density	Avg. Height	Size	Outolop III 14 1/2.			
	Sugar Maple	10	Pole	7		Sugar Maple	Medium	10 - 20 feet	Sapling				
	Red Maple	35	Pole/Log	9	67	Balsam Fir	Medium	10 - 20 feet	Sapling				
	Yellow Birch	5	Pole	7		White Spruce	Medium	10 - 20 feet	Sapling				
						1 1	NA a alicensa	10 - 20 feet	0 1!				
	Paper Birch	35	Log/Pole	10		Ironwood	Medium	10 - 20 1661	Sapling				
	Paper Birch  Quaking Aspen	35 10	Log/Pole Pole	8	53	Ironwood	Medium	10 - 20 leet	Sapling				



Stand	d Level 4 C	Level 4 Cover Type		Size Density		Acres	Stand Age	BA Range	Managed \$	Site	General Comments
57	6224 - <sup>-</sup>	6224 - Treed Bog			Nonstocked			Unspecified	No		spruce bog with tal alder along lake. b spruce stunted with scattered cedar.
58	6121 -	Tamarack	Ро	letimbe	r Medium	n 8.7	65	Unspecified	N/A		tamarack 5 - 8" dbh, 4 sticks tall. very wet area - transition to open
	Canopy Species	% Cover	Size Class	DBH Age		Sub-Ca	nopy Specie	es Density	Avg. Height	Size	bog/creek. majority of associated cedar is dead due to high water.
	Black Spruce	5	Pole/Sapling	5			ag Alder	Full	5 - 10 feet	Tall Shrub	
No	orthern White Cedar	5	Pole	8				'	1		
	Tamarack	90	Pole	7	65						
59	4130	- Aspen		Sapling	g Well	78.5	6	Immature	N/A		stand cut winter 2016 per prescription below. regenerating to aspen
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size	
	Red Maple	5	Pole	7	1 190		lsam Fir	Low	10 - 20 feet	Sapling	
	Paper Birch	5	Pole/Log	9			te Spruce	Low	5 - 10 feet	Sapling	
	Quaking Aspen	90	Sapling	1	6		nut (Beaked)		< 5 feet	Tall Shrub	
							on Blackberr		Variable	Tall Shrub	
60	6225 - Bog Nonstocked				ocked	18.9	-	Unspecified	No		leatherleaf bog ringed with b spruce and tamarack. fairly dense b spruce along edges but quickly transitions to open bog
61		4130 - Aspen		Sapling Well		<u> </u>		Unspecified	N/A		stand just starting to show growth into scattered poletimber. very widely scattered large w pine
	Canopy Species	% Cover			H Age	Sub-Canopy Species Densit			Avg. Height Size		
	Red Maple	5	Pole/Sapling			Hazelr	nut (Beaked)	Medium	< 5 feet	Tall Shrub	
	Quaking Aspen	80	Sapling/Pole		15						
	Balsam Fir	5	Sapling	3							
	White Spruce	5	Sapling	3							
	White Pine	5	XLog	18							
62	6120 - Lo	vland Cedar		Poletimber We		14.5	130	Unspecified	N/A		fairly thick fir sapling undestory. N end transitions to more upland with
	Canopy Species	% Cover	Size Class	DBH	H Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size	higher component of fir. heavy winter deer usage.
	Yellow Birch	5	Pole	7		Ва	ılsam Fir	High	10 - 20 feet	Sapling	
	Balsam Fir	20	Pole/Sapling	5	50						
	White Spruce	10	Pole	6							
No	orthern White Cedar	65	Log	14	130						
63	6224 - Treed Bog Nonsto			ocked	125.4		Unspecified	No		bog with associated tag alder. creek runs through stand	
64		wland Ceda			er Well	3.1	95	Unspecified	N/A		good cedar with areas of thick tag alder. very SW has heavy alder with balm, spruce/fir. heavy winter deer usage
	Canopy Species		Size Class		H Age		nopy Speci	es Density	Avg. Height	Size	bann, oprasonii. Houvy winter door dodge
	Balsam Poplar	3	Pole/Log	8			lsam Fir	Low	10 - 20 feet	Sapling	
	Black Spruce	2	Pole	8		Ta	ag Alder	High	5 - 10 feet	Tall Shrub	
	orthern White Cedar	95	Log/Pole	12	95		5				

Report 7 – Stands



Stand	Level 4 C	over Type		Size Density		Acres	Stand Age E	BA Range	Managed 9	Site	General Comments
65	4112 - Maple, Beech, Cherry Association				Poletimber Well		67	111-140			Fair to good quality hardwoods. open understory. areas of large boulders and rock. scattered oaks. BA 110
	Canopy Species	% Cover	Size Class	DBI	H Age	\ge Sub-Ca	nopy Species	Density	Avg. Height	Size	boulders and rock. Scattered daks. DA 110
	Sugar Maple	72	Pole/Log	8	67	Sug	jar Maple	Medium	>20 feet	Sapling	
	Red Maple	13	Pole/Log	8		Whi	te Spruce	Low	10 - 20 feet	Sapling	
	Yellow Birch	5	Pole	10							•
	Red Oak	5	Log	12							
	Paper Birch	5	Pole	8							
66	4130	- Aspen		Saplin	g Well	68.7	17 L	Jnspecified	N/A		good aspen regen 2-3" dbh
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	85	Sapling	3	17	Hazelr	ut (Beaked)	Medium	5 - 10 feet	Tall Shrub	
	Balsam Fir	3	Pole/Sapling	9 6							
	White Spruce	2	Pole/Sapling	9 6							
	White Pine	10	Pole/Log	10							
67	4112 - Maple, Beed	Poletimb	er Well	22.5	67	51-80	N/A		Hardwoods are 4 - 7" dbh. very scattered r oak. Cut in the winter of 201		
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	following prescription below.
	Sugar Maple	70	Pole	7	67	Sug	jar Maple	Medium	>20 feet	Sapling	
	Red Maple	15	Pole	7		Whi	te Spruce	Low	10 - 20 feet	Sapling	
	Yellow Birch	5	Pole	10							•
	Red Oak	5	Log	12							
	Paper Birch	5	Pole	8							
68	4191 - Mixed Upla Co	and Decidu onifer	ous with	Sawtimber Well		3.6 106		51-80	N/A		pocket of natural r pine (R9) in SW of stand - well formed trees 10 - 12 sticks high. old aspen 7 - 9 sticks tall 14 - 16" dbh. very scattered w pin-
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	poletimber. r pine sawtimber scattered throughout the stand.
	Paper Birch	35	Log/Pole	10		Ва	lsam Fir	Low	10 - 20 feet	Sapling	
	Quaking Aspen	35	Log	14	106			'			•
	Balsam Fir	5	Pole	6							
Noi	rthern White Cedar	5	Pole	6							
	White Pine	10	Pole	8							
	Red Pine	10	Log	18	114						
69	6120 - Lowland Cedar Poletimber N					n 3.1	70 L	Jnspecified	N/A		cedar 1 - 3 sticks tall. good pure cedar stand. widely scattered b
	Canopy Species	% Cover	Size Class	DBł	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	spruce. good winter deer usage
Noı	rthern White Cedar	100	Pole/Sapling		70		ck Spruce	Low	< 5 feet	Sapling	
						Ta	ımarack	Low	< 5 feet	Sapling	
						Ta	ng Alder	Medium	< 5 feet	Tall Shrub	
70	500	- Water		Nonst	aaltad	1.6		Jnspecified	No		Light Lake

## Report 7 - Stands



Stand	Level 4 Cover Type		Size Density			Acres	Stand Age BA Range		Managed S	Site	General Comments	
71	6225	5 - Bog		Nonst	Nonstocked		ι	Unspecified Unspecified	No		bog along edge of Light Lake	
72	6224 - <sup>-</sup>	Treed Bog		Nonstocke		50.7	ţ		No		heavy tag alder overall. as edges transition towards higher ground, pockets of tamarack and b spruce are present. otherwise widely scattered stunted single trees. leatherleaf bog along Light Lake.	
73	4130	- Aspen	;	Sawtimber Well			72 l	Jnspecified	N/A		mature aspen, fairly good h maple saplings/poles on higher hillside along	
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Cano	nopy Species	Density	Avg. Height	Size	the road. Aspen in SE corner of stand is of an older age class but will hold.	
	Sugar Maple	20	20	Sapling/Pole	9 6		Sug	ar Maple	Medium	10 - 20 feet	Sapling	noid.
	Paper Birch	5	Pole 8		Whi	te Spruce	Low	< 5 feet	Sapling	heavily used by wintering deer, notably in transition area		
	Quaking Aspen	70	Log/Pole	12	72					,	-	
	Balsam Fir	5	Pole	7								
74	6220 - A	lder/willow		Nonst	ocked	5.5	l	Jnspecified	No		tag alder along creek	
75	500 -	- Water		Nonst	ocked	1.1	l	Jnspecified	No		pond	
78	4130	- Aspen	Sapling Well		g Well	3.4	16	Immature	N/A		starting to grow into scattered small poletimber	
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Quaking Aspen	100	Sapling/Pole	9 3	16	Haze	Inut (Spp.)	Medium	< 5 feet	Tall Shrub		
80	6119 - Mixed Lowland Deciduous Forest			Poletimber Well		7.4	60 l	Jnspecified	N/A		E end heavy to mature balm right along a drainage. W end transitions to b ash/y birch with hemlock at edges	
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	b asily blich with hemiock at edges	
	Yellow Birch	30	Pole/Log	10		Ва	lsam Fir	Low	10 - 20 feet	Sapling		
	Balsam Poplar	25	Log/Pole	14		Bla	ack Ash	Low	10 - 20 feet	Sapling		
	Hemlock	5	Log	14								
	Black Ash	40	Pole	10	60							