

## **Compartment Review Presentation**

**Crystal Falls Forest Management Unit** 

Compartment 12005 Entry Year 2022 Acreage: 1,291

**County Dickinson** 

Management Area: Ralph Ground Moraine

Revision Date: 2020-10-19 Stand Examiner: Ed Rice

**Legal Description:** 

T44N R29W section 7,19

T44N R30W Sections 12, 13, 23, 24

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

On sites where pine is regenerating, encourage the pine succession. Harvest aspen for regulated age distribution. Manage oak stands with wildlife considerations as primary. Protect drainages for water quality and wildlife habitat.

#### Soil and topography:

The topography is flat to rolling sand. The soils are suited for a mix of hardwoods, oak, aspen and pine. Large depressions are scattered throughout the compartment.

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

The compartment is contiguous. Private lands border the compartment and along the south, may or may not impact access.

#### **Unique Natural Features:**

None identified

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

None identified

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

Winter deer range

## **Watershed and Fisheries Considerations:**

This compartment contains Twomile Creek, Weber Creek and the Main Branch of the Ford River. Twomile Creek and Weber Creek are designated Type 1 trout streams less than 50' width and both serve as tributaries to the Main Branch of the Ford River. 300' buffers are recommended for Twomile Creek and Weber 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. The Main Branch of the Ford River is designated a Type 1 trout stream less than 50' width. A 300' buffer is recommended for the Main Branch of the Ford River 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:

This compartment contains DWC, between the historic Three Lakes, Channing and Floodwood deeryards, Currently combined into the Iron-Floodwood DWC. The oak and aspen components are extremely important to deer, bear, and grouse to name of few of the wildlife species benefitting from its proper management.

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

Surface sediments consist of end moraines of coarse-textured glacial till. The glacial drift thickness varies between 10 and 200 feet. The Precambrian Michigamme Formation subcrops below the glacial drift. There is not an economic use for the Michigamme. Iron mines are located approximately fifteen miles to the southwest. A gravel pit is indicated one mile to the north and another one mile to the west. There appears to be good gravel potential in the compartment. There is no economic oil and gas production in the UP.

#### **Vehicle Access:**

Overall good access

#### **Survey Needs:**

Several corners may need to be set

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

#### **Fire Protection:**

Through a drier area, the fuels are dominated by aspen. Low to moderate intensity surface fire could carry. Containment of fires in the compartment should not be problematic.

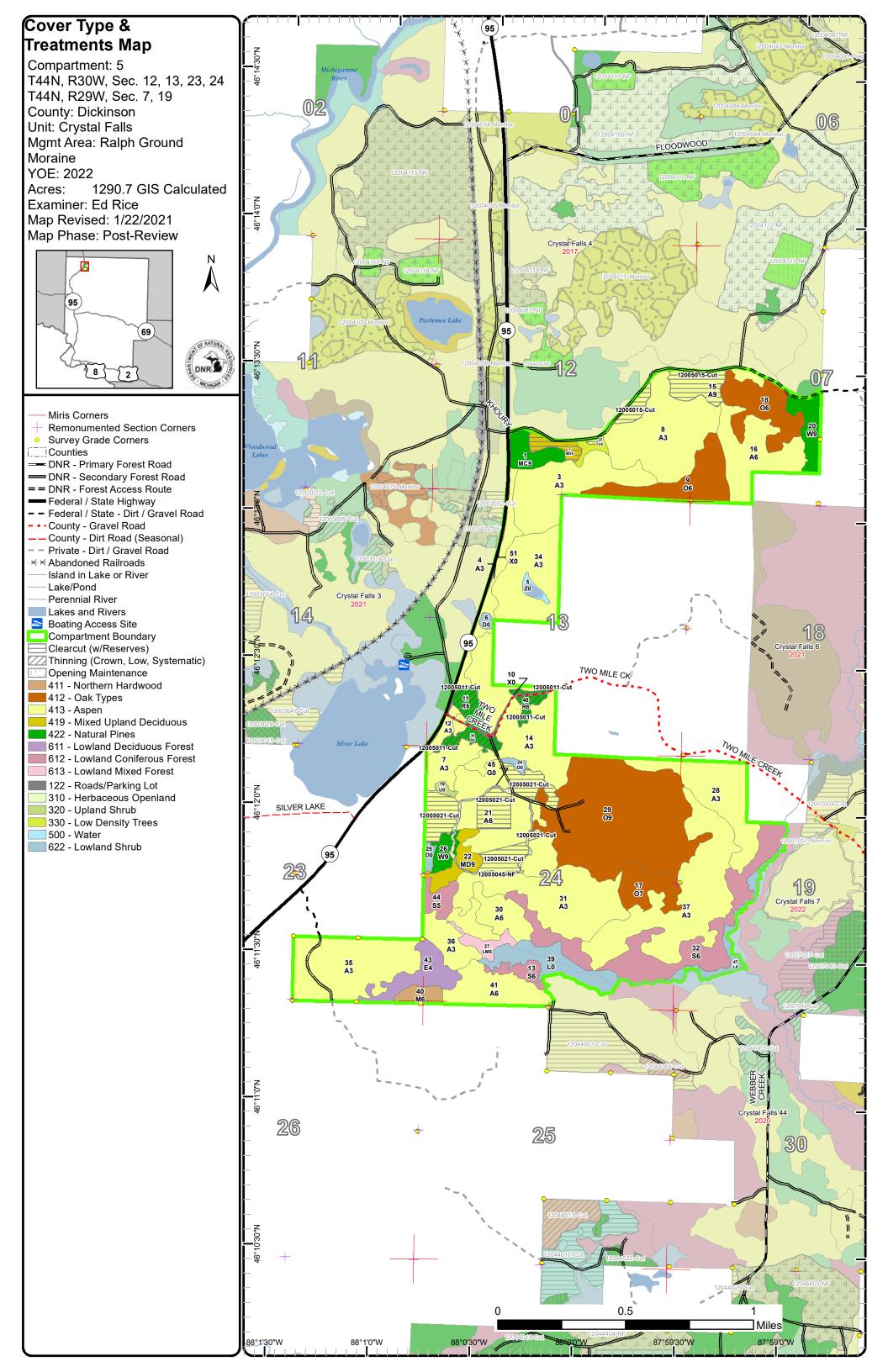
#### **Additional Compartment Information:**

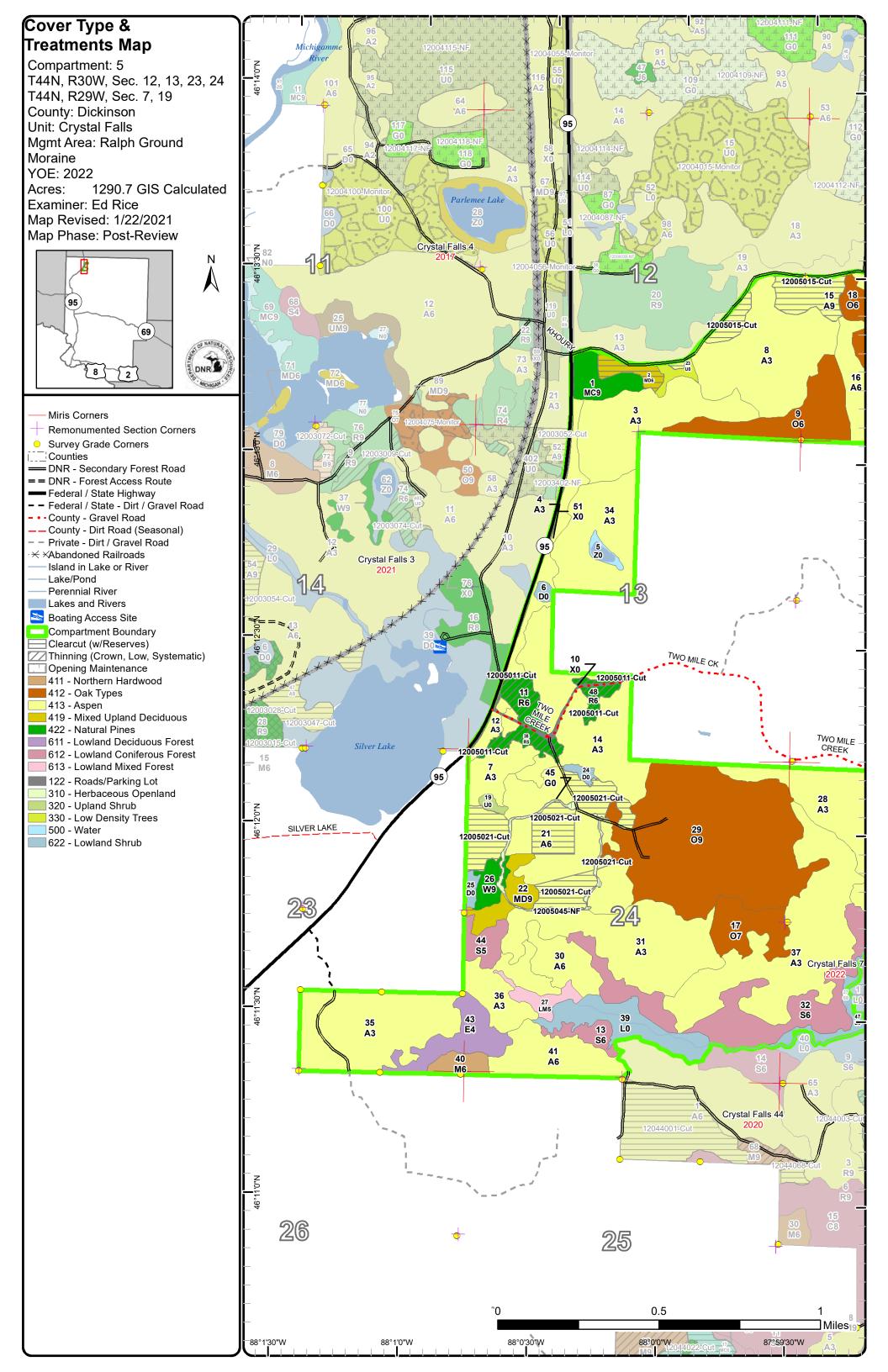
The following reports from the Inventory are attached:

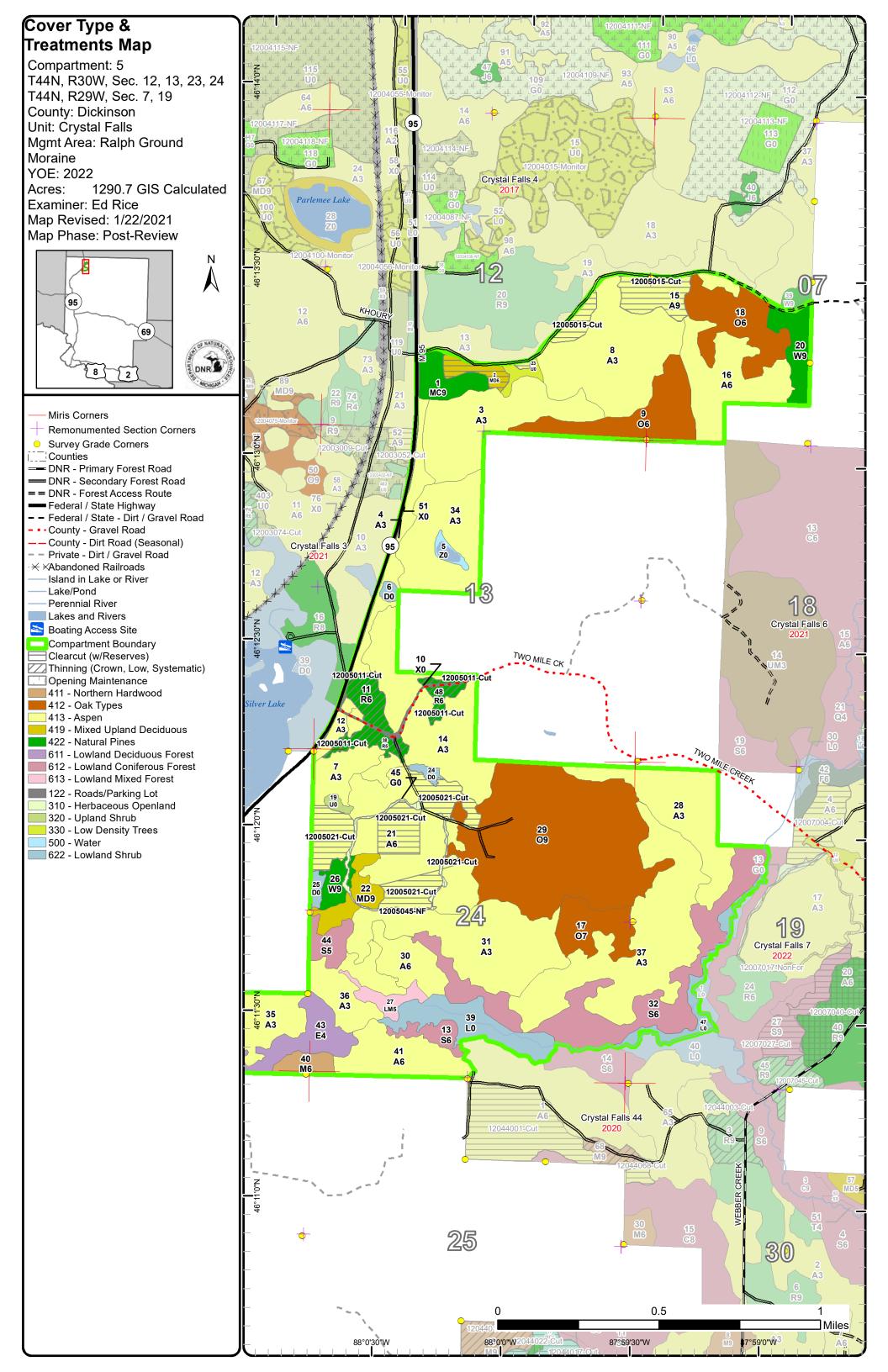
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

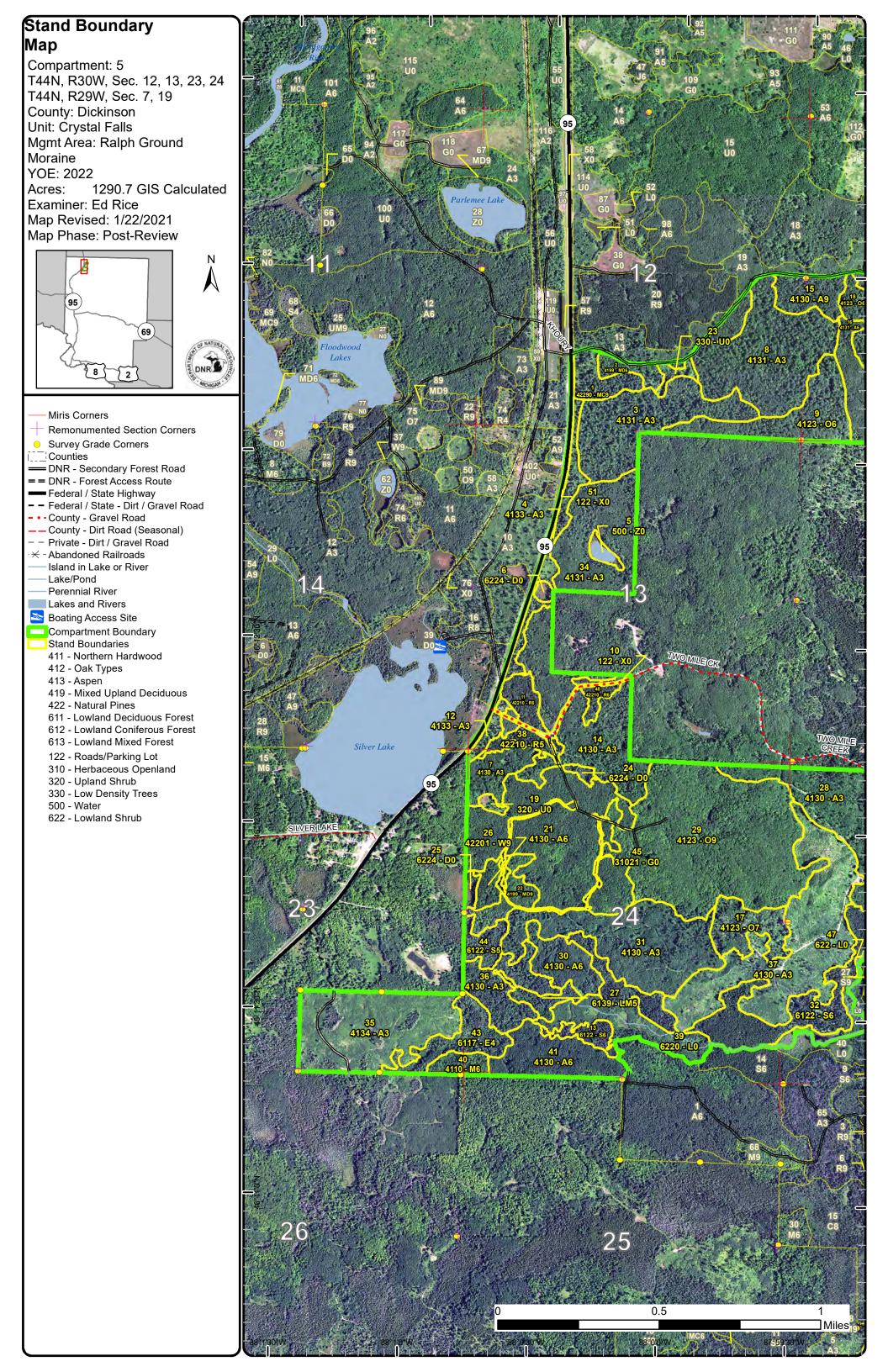
The following information is displayed, where pertinent, on the attached compartment maps:

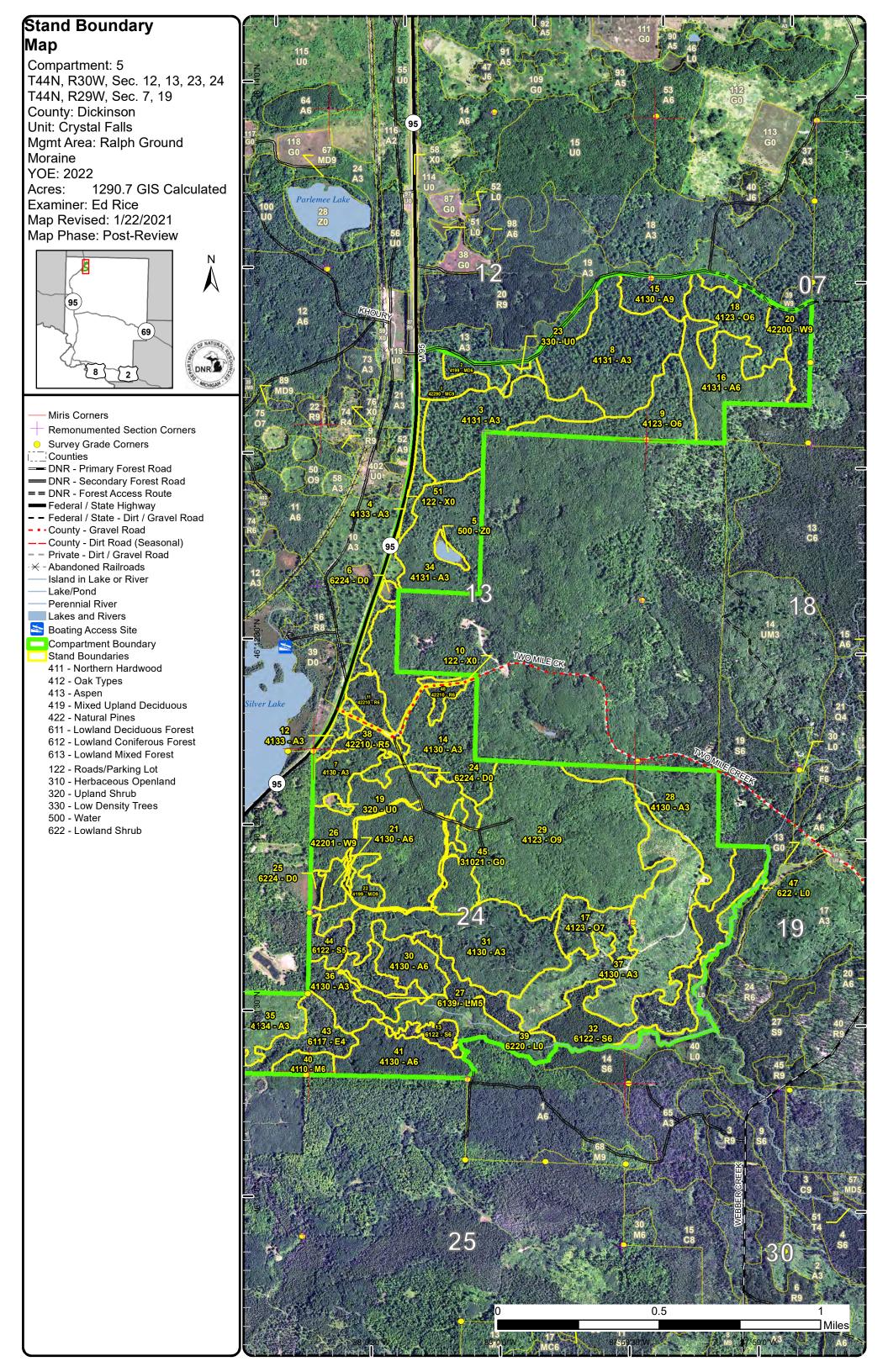
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

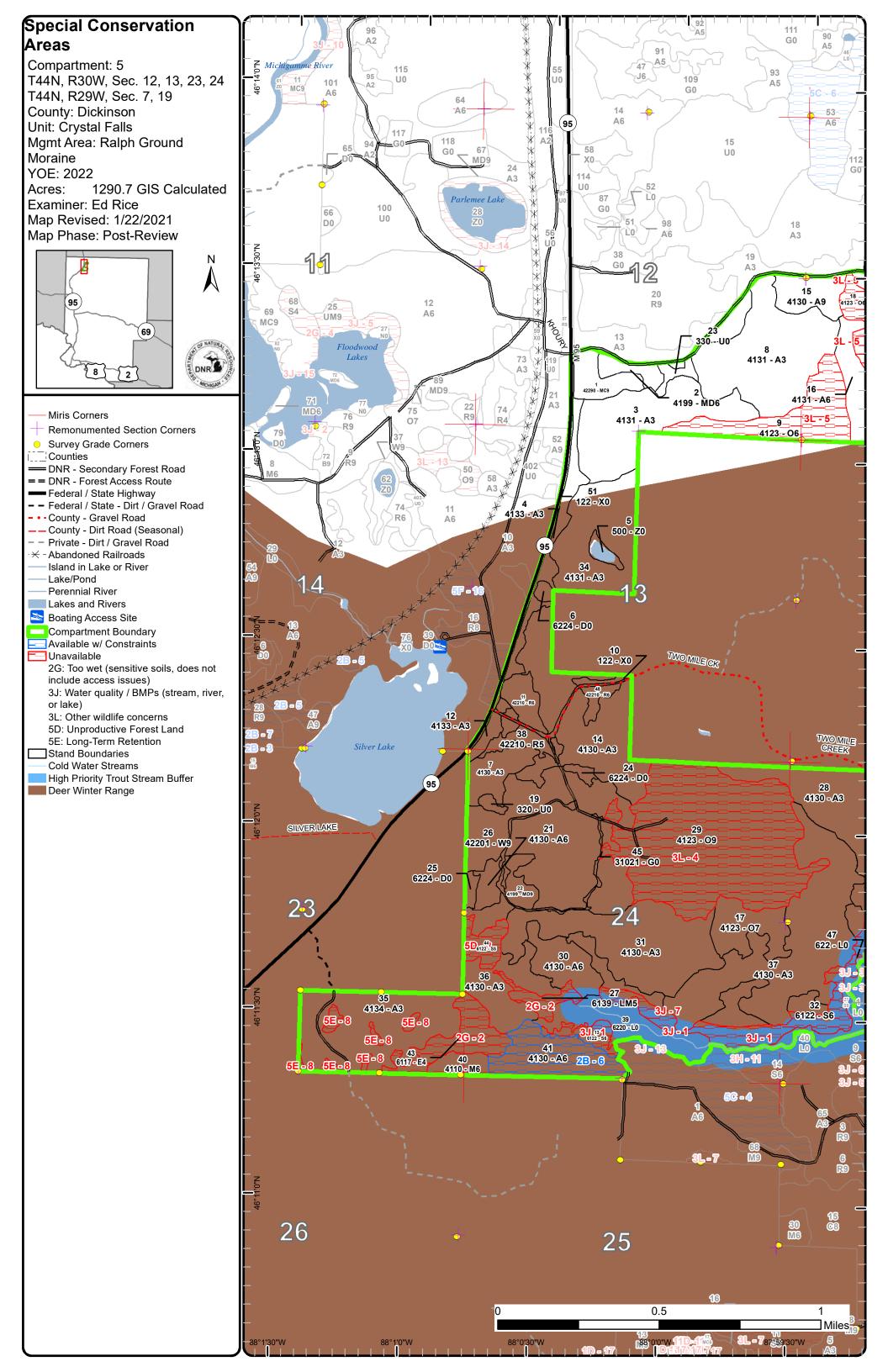


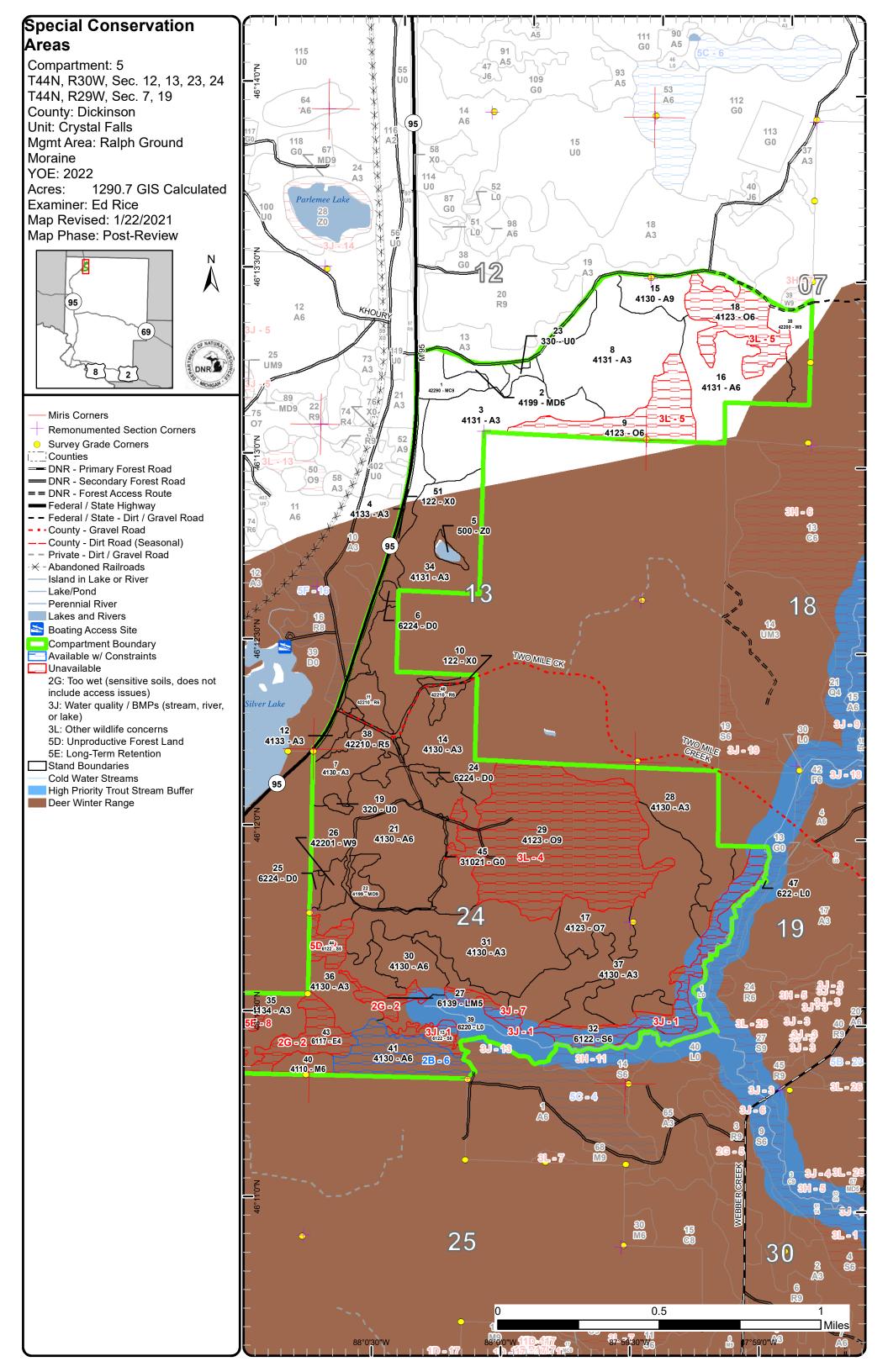












Compartment 5

Year of Entry 2022



Crystal Falls Mgt. Unit

Ed Rice: Examiner

#### Age Class

	₹0°		3 / 8	\$ \$	& /x	3 / 6		3/8	\$ /k	® / &		8 /2	70,			\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	No. of the second	\$ Jugar	LOS LOS
Aspen	0	209	68	301	64	97	30	0	23	0	0	0	0	0	0	0	0	0	791
Herbaceous Openland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
_ow-Density Trees	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
owland Deciduous	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	21
owland Mixed Forest	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7
owland Shrub	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
owland Spruce/Fir	0	0	0	0	0	0	75	9	0	0	0	0	0	0	0	0	0	0	84
lixed Upland Deciduous	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	20
latural Mixed Pines	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	13
lorthern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7
Oak Oak	0	0	0	0	0	0	0	0	232	0	0	0	0	0	0	0	0	0	231
Red Pine	0	0	0	0	0	0	7	15	0	0	0	0	0	0	0	0	0	0	22
Freed Bog	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Jpland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Jrban	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Vater	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
White Pine	0	0	0	0	0	0	0	0	0	7	16	0	0	0	0	0	0	0	23
otal	70	209	68	301	64	97	112	72	255	7	29	0	0	0	0	0	0	7	1289



## **Report 2 – Treatment Summary**

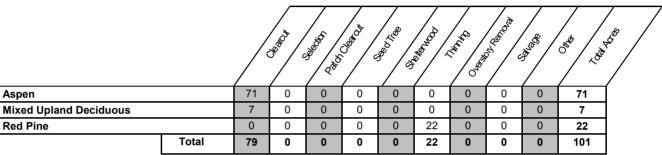
## Crystal Falls Mgt. Unit Year of Entry: 2022

#### **Acres of Harvest**

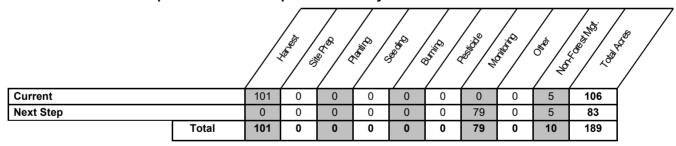
Compartment 5
Total Compartment Acres: 1,291

Commercial Harvest - 101 Harvests with Site Condition - 0 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: 5 Year of Entry: 2022

Age



**Treatment** Acres Stand Size Stand BA **Treatment Treatment** Cover Type n Method Name CoverType Density Age Range Type d

Objective Structure

Deciduous

Habitat Cut

**Proposed Treatments:** 

s

t а

> 12005002-Cut 7.2 4199 - Other Mixed Poletimber 61 81-110 Harvest Clearcut with 4319 - Mixed Even-Aged No **Upland Deciduous** Well Retention **Upland Forest**

> Prescription Cut merchantable aspen, spruce, fir, red maple, w birch, cherry, leave at least one w birch and/or cherry per cruise point where available. Do not cut oak, r pine, or w pine. Protect sub-merchantable oak and conifers present. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of oak, pine and aspen.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2021

12005011-Cut 22.3 42210 - Natural Poletimber 65 111-Harvest Crown Thinning 42141 - Planted Even-Aged Nο Red Pine Well 140 Mixed Pine, Mixed

Prescription thin r pine to 100-110 BA. do not cut w pine unless absolutely necessary for equipment access. do not cut was Specs:

Next Step Treatments:

Acceptable

Regen:

**Other** 

Comment:

Site Condition

Proposed Start Date: 10/1 /2021

12005015-Cut 22.7 4130 - Aspen Sawtimber 71 Unspec Harvest Clearcut with 413 - Aspen Even-Aged No Well Retention

Prescription Cut merchantable aspen, spruce, fir, red maple, w birch, cherry. Leave at least one w birch and/or cherry per cruise point where available. Specs: Do not cut oak, r pine, or w pine. Eastern most block has very dense understory of maple - protect from damage as much as possible. Also protect sub-merchantable conifers and oak present.

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Acceptable Mix of aspen, pine and oak.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2021

S t	С	rystal Falls	Mgt. Unit		Repo	rt 3 <sup>-</sup>	Treatments		Compartmen Year of Entry		DNR DNR DR
a n d	Treatment Name	Acres	Stand CoverType		Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
21	12005021-Cut	48.6	4130 - Aspen	Poletimbe Well	r 46	Unspec ified	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	No
Next Trea Acce Reg	cs: not cu t Step Monito ttments: eptable aspen en:	t oak, r pine oring, Natura	aspen, spruce, fir , or w pine. protec il Regen (Re-Inve	t submerch:				v birch and/or cherr	y per cruise poin	t where availa	ble. Do
	Condition cosed Start Date	e: 5/6/202	0								
45 Pres	12005045-NF scription mecha	4.9 anical site pr	31021 - Cool Season Grass ep, seed, mow	Nonstocke	ed 0	Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	31021 - Cool Season Grass		No
Acce Reg	atments: eptable cool seen:		rbaceous/Crop/G	rass Plantin	g						

Total Treatment Acreage Proposed: 105.7

Proposed Start Date: 10/1 /2021

## Report 4 - Site Conditions

Crystal Falls Mgt. Unit

**Ed Rice: Examiner** 

Compartment: 5
Year of Entry: 2022



#### **Availability for Management** Total Acres Acres Avail Acres **Dominant Site Conditions** Available With Condition Not Available 2G 3J 5D 5E Acres 2B 3L Aspen Herbaceous Openland Low-Density Trees **Lowland Deciduous Lowland Mixed Forest** Lowland Shrub Lowland Spruce/Fir **Mixed Upland Deciduous** Natural Mixed Pines Northern Hardwood Oak Red Pine Treed Bog **Upland Shrub** Urban Water White Pine 1,291 Total Forested Acres 74% 24% Relative Percent 2%

<sup>\*</sup>Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

ond Availability	<b>Dominant Site Condition</b>	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
Unavailable	3J: Water quality / BMPs (stream, river, or lake)	49	Unspecified	Unspecified	Unspecified	Unspecified
omments:						
		(stream, river, or lake)				

# Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Ed Rice : Examiner



2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	29	Unspecified	Unspecified	Unspecified	Unspecified	
	Comments:							
3	Unavailable	5D: Unproductive Forest Land	9	Unspecified	Unspecified	Unspecified	Unspecified	
	Comments: low SI							
4	Unavailable	3L: Other wildlife concerns	142	Unspecified	Unspecified	Unspecified	Unspecified	
	Comments: LF from 2012 YOE.	. stand is an extremely high wild	dlife val	ue oak stand in N Dickinson	County			
5	Unavailable	3L: Other wildlife concerns	68	Unspecified	Unspecified	Unspecified	Unspecified	
	Comments: LF from 2012 YOE	inventory						
6	Available	2B: Unknown if access through adjacent landowner(s) is possible	30	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified	
	Comments: age class diversity	due to adjacent compartment s	tand 1 l	being scheduled for harvest				
7	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	0	Unspecified	Unspecified	Unspecified	Unspecified	
	Comments:							

# Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment: 5
Year of Entry: 2022



8 Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						

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Mgt. Unit

Compartment: #Type! Year of Entry:



#### Report 5 - PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				

Crystal Falls Mgt. Unit





## Report 6 - EXISTING SPECIAL CONSERVATION AREA DETAILS

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

Conservation Area	Туре	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen condi- stocked trout populations and those of other coldwater fish speci- year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	es (e.g., slimy sculpin) to persist from se conditions due to substantial
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildli and Waterfowl Production Areas, deer wintering complexes in low openings and savannas. Habitat areas are distinct from critical hat endangered 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 endangered 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 d communities are ecologically and socially significant in their effect as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, iversity of plants and wildlife. Riparian cts on water quality and quantity, as well



Stan	d Level 4 Ce	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments	CHIGAN .
1	42290 - Natu	ıral Mixed F	Pine S	Sawtimb	er Well	12.8	91	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Specie	s Density	Avg. Height	Size		
	Red Oak	15	Log/Pole	11		Red	Maple	Low	10 - 20 feet	Sapling		
	White Pine	45	Log	18	91	Quakii	ng Aspen	Medium	< 5 feet	Sapling		
	Red Pine	40	Log	18		Hazelnu	ıt (Beaked)	Medium	< 5 feet	Tall Shrub		
2	4199 - Other Mixe	d Upland D	eciduous F	Poletimb	er Well	7.2	61	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Specie	s Density	Avg. Height	Size		
	Red Maple	20	Pole/Log/Sap	8		Hazelnu	ıt (Beaked)	Medium	< 5 feet	Tall Shrub		
	Red Oak	30	Log/Pole/Sap	10								
	Quaking Aspen	35	Pole/Log	8	61							
	White Pine	5	XLog	18								
	Paper Birch	10	Pole/Log	8								
3	4131 - A	spen, Oak		Sapling	Well	53.1	25	Unspecified	N/A		residual overstory oak was left with pine of all sizes when cut.	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Specie	s Density	Avg. Height	Size		
	Red Oak	20	Log	12		Red	Maple	Medium	10 - 20 feet	Sapling		
	Quaking Aspen	65	Sapling/Pole	3	25	Hazelnu	ıt (Beaked)	Medium	< 5 feet	Tall Shrub		
	White Pine	10	Pole/Log	10				'			'	
	Red Pine	5	Pole	8								
4	4133 - Aspe	en, Mixed P	ine	Sapling	Well	16.6	8	Immature	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Specie	s Density	Avg. Height	Size		
	Red Oak	5	Pole/Log	10		Red	Maple	Low	Variable	Tall Shrub		
	Quaking Aspen	60	Sapling	1	8	Bals	sam Fir	Low	Variable	Tall Shrub		
	White Pine	25	Log	16	86	White	Spruce	Low	Variable	Tall Shrub		
	Red Pine	10	Log	16		Hazelnu	ıt (Beaked)	Medium	< 5 feet	Tall Shrub		
5	500 -	- Water		Nonsto	cked	3.4		Unspecified	No		bog pond, edged with leatherleaf	
6	6224 - 1	Freed Bog		Nonsto	cked	1.9		Unspecified	No		small leatherleaf bog with stunted b spruce. seasonally ponded	
7	4130	- Aspen		Sapling	Well	17.3	24	Unspecified	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Specie	s Density	Avg. Height	Size		
	Quaking Aspen	85	Sapling/Pole	4	24	Red	Maple	Low	5 - 10 feet	Sapling		
	White Pine	5	Pole	9		Hazelnu	it (Beaked)	Low	< 5 feet	Tall Shrub		
	Red Pine		Pole									



Stand	d Level 4 C	over Type	S	Size De	ensity	Acres	Stand Age B	BA Range	N/A		General Comments
8	4131 - A	Aspen, Oak		Saplin		69.6	26	Immature			aspen and mixed species removed from stand in 1995. oak left as
	Canopy Species		Size Class		l Age		nopy Species	Density	Avg. Height	Size	Tooldadi
	Red Oak	20	Log/Pole	12	71		d Maple	Low	10 - 20 feet	Sapling	
	Quaking Aspen	60	Sapling/Pole	4	26		ed Oak	Low	10 - 20 feet	Sapling	
	White Pine	5	Log	12			nite Pine	Low	10 - 20 feet	Sapling	
	Red Pine	5	Pole	8		Hazelr	ut (Beaked)	Low	< 5 feet	Tall Shrub	
	Red Maple	10	Sapling/Pole	4							
9	4123 -	Red Oak	P	oletimb	er Well	35.3	71	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Sugar Maple	5	Pole	8		Re	d Maple	Low	10 - 20 feet	Sapling	
	Red Maple	5	Pole	9		Iro	onwood	Low	10 - 20 feet	Sapling	
	Red Oak	75	Log/Pole	10	71						
	Paper Birch	10	Pole	8							
	White Pine	5	Pole/Log	10							
10	122 - Road	d/Parking L	ot	Nonst	ocked	3.0	0 U	Inspecified	No		Fire Tower Rd
11	42210 - Na	tural Red P	ine P	oletimb	er Well	9.3	65	111-140	N/A		
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Pine	15	Pole	9		Quak	ing Aspen	Medium	10 - 20 feet	Sapling	
	Red Pine	85	Pole	8	65						
12	4133 - Aspe	en, Mixed P	ine	Saplin	g Well	4.9	8	Immature	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Oak	5	Pole/Log	10		Re	d Maple	Low	Variable	Tall Shrub	
	Quaking Aspen	60	Sapling	1	8	Ва	lsam Fir	Low	Variable	Tall Shrub	
	White Pine	25	Log	16		Whi	te Spruce	Low	Variable	Tall Shrub	
	Red Pine	10	Log	16		Hazelr	ut (Beaked)	Medium	< 5 feet	Tall Shrub	
13	6122 - Bl	lack Spruce	P P	oletimb	er Well	7.1	58 U	Inspecified	N/A		scattered low ground aspen, areas of smaller diameter trees. tag alder
14		- Aspen		Saplin		65.0		Inspecified	N/A		
	Canopy Species	% Cover	Size Class		l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	5	Pole	7		Re	d Maple	Low	5 - 10 feet	Sapling	
	Red Oak	5	Pole	8		WI	nite Pine	Low	5 - 10 feet	Sapling	
	Quaking Aspen	75	Sapling/Pole	4	24	R	ed Pine	Low	< 5 feet	Sapling	
	White Pine	10	Pole	7		Hazelr	ut (Beaked)	Low	5 - 10 feet	Tall Shrub	
	Red Pine	5	Pole	7							



Stand	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
15	4130	- Aspen	S	awtimb		22.7	71	Unspecified	N/A		west blocks have slightly smaller average dbh on the aspen (8-9"). Eastern most block is noticeably larger average dbh (12"). Eastern area
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	also has very dense sapling under story of r maple with occasional oak.
	Red Oak	10	Log/Pole/Sap	12		Re	d Maple	High	10 - 20 feet	Sapling	, , , ,
	Quaking Aspen	60	Log/Pole	10	71	Wh	nite Pine	Low	10 - 20 feet	Sapling	
	White Pine	5	Log/Pole/Sap	12		Hazeln	ut (Beaked)	Low	< 5 feet	Tall Shrub	
	Paper Birch	5	Pole/Log	8		R	ed Oak	Medium	10 - 20 feet	Sapling	
	Red Maple	15	Log/Pole/Sap	12				·			
	Red Pine	5	Log/Pole	10							
16	4131 - A	spen, Oak	Р	oletimb	er Well	46.2	35	Immature	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
	Red Oak	50	Log	12	76	Re	d Maple	Medium	10 - 20 feet	Sapling	
	Quaking Aspen	40	Pole/Sapling	6	35	Wh	nite Pine	Low	10 - 20 feet	Sapling	
	White Pine	5	Log	12		Hazeln	ut (Beaked)	Low	< 5 feet	Tall Shrub	
	Red Pine	5	Log	12				<u> </u>			
17	4123 -	Red Oak	S	awtimb	er Poor	20.5	71	1-50	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
	Red Oak	85	Log	12	71	Re	d Maple	Low	10 - 20 feet	Sapling	
	White Pine	15	Log	15		Quak	ing Aspen	High	10 - 20 feet	Sapling	
18	4123 -	Red Oak	Р	oletimb	er Well	33.0	76	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
	Red Maple	5	Sapling/Pole	4		Hazeln	ut (Beaked)	Low	< 5 feet	Tall Shrub	
	Red Oak	70	Log/Pole	10	76						
	Quaking Aspen	25	Pole/Sapling	6	35						
19	320 - Up	land Shrub		Nonsto	cked	1.9		Unspecified	No		semi open brush/trees with small wet/low area
20	42200 - Natu	ural White F	Pine S	awtimb	er Well	15.8	91	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
	Red Oak	20	Log	14		Re	d Maple	Low	>20 feet	Sapling	
	White Pine	65	Log	18	91	Ва	lsam Fir	High	Variable	Tall Shrub	
	Red Pine	15	Log	16		Whi	te Spruce	Low	Variable	Tall Shrub	
						Hazeln	ut (Beaked)	Medium	< 5 feet	Tall Shrub	
	4420	- Aspen	Р	oletimb	er Well	97.2	46	Unspecified	N/A		oak present.
21	4130	'		0.00				•			
21	Canopy Species	•	Size Class		Age		nopy Specie		Avg. Height	Size	
21		•				Sub-Ca	nopy Specie Isam Fir			<b>Size</b> Sapling	
21	Canopy Species	% Cover	Size Class	DBH		Sub-Ca Ba		es Density	Avg. Height		



Stand	Level 4 Co	over Type		Size Den	sity	Acres S	Stand Age	BA Range	Managed 9	Site	General Comments	MICHIGAN
22	4199 - Other Mixe	d Upland D	eciduous	Sawtimbe	r Well	12.7	66	81-110	N/A		stand was estimated, should be field verified	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cano	py Species	Density	Avg. Height	Size		
	Red Maple	20	Pole	7		Hazelnut	(Beaked)	Low	< 5 feet	Tall Shrub		
	White Pine	10	Log/Pole	14				·		'		
	Quaking Aspen	20	Pole	7								
	Red Oak	50	Pole/Log	9	66							
23	330 - Low-[	Density Tre	es	Nonstoc	ked	3.8	0 (	Unspecified	429 - Mixed Conife		Opening growing in to cherry and pine.	
24	6224 - 1	reed Bog		Nonstoc	ked	2.1	0 (	Unspecified	No			
25	6224 - 1	reed Bog		Nonstoc	ked	2.6	l	Unspecified	No		leatherleaf bog with stunted b spruce, tamarack	
26	42201 - Natural V Deci	White Pine duous	, Mixed	Sawtimbe	r Well	6.9	81	81-110	N/A		stand was estimated, should be field verified	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cano	py Species	Density	Avg. Height	Size		
	Red Maple	10	Pole	7		Hazelnut	(Beaked)	Low	< 5 feet	Tall Shrub		
	White Pine	65	Log/Pole	14	81			•				
	Quaking Aspen	25	Pole	7								
27	6139 - Mixed	Lowland Fo	orest Po	oletimber I	Medium	n 7.4	61	51-80	N/A		very wet	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cano	py Species	Density	Avg. Height	Size		
	Red Maple	10	Pole/Log	9		Balsa	am Fir	Low	Variable	Sapling		
	Paper Birch	5	Log/Pole	10		Black	Spruce	Low	Variable	Sapling		
	Quaking Aspen	15	Log/Pole	10		Tag	Alder	Medium	5 - 10 feet	Tall Shrub		
	Balsam Fir	20	Pole/Sapling	7				·		'		
	White Spruce	10	Log/Pole/Sap	p 10								
	Black Spruce	10	Pole/Sap/Log	g 8								
	Black Ash	20	Pole/Sapling	9 6	61							
No	rthern White Cedar	10	Log/Pole	10								
28	4130	- Aspen		Sapling \	Well	47.5	29 l	Unspecified	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age		py Species	Density	Avg. Height	Size		
	Red Maple	5	Sapling	2		Hazelnut	(Beaked)	Low	< 5 feet	Tall Shrub		
	Red Oak	5	Log/Pole	10								
	Quaking Aspen	90	Sapling/Pole	9 4	29							



Stan	d Level 4 C	evel 4 Cover Type Size Density Acres Stand Age BA Range Managed Site		General Comments							
29	4123 -	Red Oak	S	Sawtimb	er Well	142.2	76	111-140	N/A		stand is a mix of n hardwoods (mainly maple and y birch) with hemlock
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	inclusions. much of the stand has high stocking of oak. Oak is in good shape, no evidence whatsoever of decline or loss of vigor.
	Sugar Maple	10	Pole	7		Ва	lsam Fir	Low	10 - 20 feet	Sapling	, simps, no sinusino initiato de la solició de la seconda
	Red Maple	10	Pole	7		Whit	te Spruce	Low	10 - 20 feet	Sapling	
	Red Oak	65	Log/Pole	11	76	Re	ed Oak	Low	< 5 feet	Sapling	
	Paper Birch	5	Pole	8							
	Quaking Aspen	5	Log/Pole	11							
	Hemlock	5	Log	14							
30	4130	- Aspen	P	oletimb	er Well	18.4	35 U	nspecified	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	5	Sapling/Pole	4		Ba	lsam Fir	Medium	5 - 10 feet	Sapling	
	Quaking Aspen	95	Pole/Sapling	5	35						
31	4130	- Aspen		Sapling	y Well	68.3	19 I	mmature	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Oak	5	Log/Pole	10		Ва	lsam Fir	Low	5 - 10 feet	Sapling	
	Quaking Aspen	80	Sapling	2	19	Whit	te Spruce	Low	5 - 10 feet	Sapling	
	Balsam Fir	5	Sapling	4							
	White Pine	5	Pole/Log	11							
	Red Pine	5	Pole/Log	11							
32	6122 - Bl	ack Spruce	· F	oletimb	er Well	68.0	56 U	nspecified	N/A		center of stand is slightly different species composition
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Balsam Fir	5	Pole	6		Та	ıg Alder	Medium	5 - 10 feet	Tall Shrub	
	Black Spruce	75	Pole	6	56						
	Balsam Poplar	10	Log	11							
	Tamarack	10	Pole	7							
34	4131 - A	spen, Oak		Sapling	y Well	47.6	25 U	nspecified	N/A		residual overstory oak was left with pine of all sizes when cut in the past.
	Canopy Species	% Cover	Size Class		l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	stand just starting to move into poletimber size class
	Red Oak	20	Log	12		Re	d Maple	Medium	10 - 20 feet	Sapling	
	Quaking Aspen	65	Sapling/Pole	4	25	Hazeln	ut (Beaked)	Medium	< 5 feet	Tall Shrub	
	White Pine	10	Pole/Log	10							
	Red Pine	5	Pole	8							



Stand	Level 4 Cover Type			Size Density		Acres	Stand Age	BA Range	Managed Site		General Comments
35	4134 - Aspen, Spruce/Fir			Sapling Well		67.4	67.4 8 Ur		N/A		
	Canopy Species	% Cover	Size Class	DBF	l Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
	Red Maple	5	Sapling	1		Ва	lsam Fir	Low	5 - 10 feet	Sapling	
	Quaking Aspen	75	Sapling	1	8	Whi	te Spruce	Low	5 - 10 feet	Sapling	
	Balsam Fir	10	Sapling	1							
	White Spruce	10	Sapling	1							
36	4130 - Aspen				g Well	25.4	4	Immature	N/A		Grouse Covey SBW
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
	Quaking Aspen	95	Sapling	1	4	Ва	lsam Fir	Low	Variable	Sapling	
	White Spruce	5	Sapling/Pole	e 4							
37	4130	- Aspen		Sapling	g Well	94.3	7	Immature	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age						
	Red Oak	5	Log	12							
	White Pine	10	Log	15							
	Quaking Aspen	70	Sapling	1	7						
	Red Maple	15	Sapling	1							
38	42210 - Na	tural Red Pi	ne Po	oletimbe	r Mediun	n 7.1	57	51-80	N/A		portion of stand cut through to remove aspen in 1996
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
	White Pine	15	Pole	9		Re	d Maple	Low	5 - 10 feet	Sapling	
	Red Pine	85	Pole	8	57	Hazeln	ut (Beaked)	Low	< 5 feet	Tall Shrub	
						Quak	king Aspen	Medium	>20 feet	Sapling	
39	6220 - A	Alder/willow		Nonsto	ocked	26.8		Unspecified	No		tag alder, open meadow, series of old beaver ponds. multiple drainages, creek feeding into Two Mile Creek
40	4110 - Sugar Maple Association		Poletimber Well		7.4 66		81-110	N/A		access is entirely through pvt	
	Canopy Species	% Cover	Size Class	DBH	l Age						
	Sugar Maple	90	Pole	9	66						
	Red Maple	5	Pole	8							
	Basswood	5	Pole/Log	10							
41	4130 - Aspen			Poletimber Well		30.0	30.0 50 Un		N/A		Fir just below aspen canopy and well stocked, southern edge of stand
	Canopy Species % Cover Size Class		Size Class	DBH Age		Sub-Ca	Sub-Canopy Species		Avg. Height	Size	may have a narrow strip of hardwoods. stand should be field verified.
	Quaking Aspen	85	Pole	8	50	Ва	lsam Fir	High	>20 feet	Pole	
	Balsam Fir	15	Pole	7							



Stand	Level 4 Cover Type			Size Density		Acres	Stand Age E	BA Range	Managed Site		General Comments
43	6117 - Lowland Deciduous, Mixed Coniferous			Poletimber Poor		21.2	21.2 61 51-80		N/A		very wet, drainage. areas of open with tag alder
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	20	Pole/Log	9		Ва	alsam Fir	Low	Variable	Sapling	
	Balsam Poplar	20	Log/Pole	10		Ta	ag Alder	High	5 - 10 feet	Tall Shrub	
	Balsam Fir	5	Pole	6				'			•
	Black Spruce	10	Pole	7							
	Black Ash	35	Pole/Sapling	g 6	61						
Noi	rthern White Cedar	10	Log/Pole	10							
44	6122 - Bl	Black Spruce		Poletimber Medi		m 9.3 61		51-80	N/A		fairly open areas through stand heavier to tag alder
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	90	Pole	7	61	Ва	alsam Fir	Low	Variable	Sapling	
Noi	rthern White Cedar	10	Pole/Log	8		Blad	ck Spruce	Low	Variable	Sapling	
						Ta	ag Alder	Medium	5 - 10 feet	Tall Shrub	
45	31021 - Cool	Season G	rass	Nonsto	ocked	4.9	0 ι	Jnspecified	No		Hunter walking trail
47	622 - Lowland Shrub				ocked	12.5 Unsp		Jnspecified	specified No		tag alder and meadows with Two Mile Creek
48	42210 - Nat	ural Red P	ine	Poletimb	er Well	5.8	65	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Oak	10	Log	14		Qual	king Aspen	Low	5 - 10 feet	Sapling	
	Paper Birch	5	Pole	8		Hazelr	nut (Beaked)	Low	5 - 10 feet	Tall Shrub	
	White Pine	5	Pole	8							-
	Red Pine	80	Pole	8	65						
51	122 - Road	d/Parking L	ot	Nonsto	ocked	7.2	0 ι	Jnspecified	No		Hwy M95