

## **Compartment Review Presentation**

**Crystal Falls Forest Management Unit** 

Compartment 12032 Entry Year 2026 Acreage: 4,024

**County Dickinson** 

Management Area: Ralph Moraine

Stand Examiner: Deb Goupell

**Legal Description:** 

T44N R27W Sec 27, 28, 33, 34 T43N R27W Sec 3-5, 9, 10

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

This compartment is about two-thirds lowland. Aspen makes up most of the upland cover type with a mix of upland combinations comprising the rest of the uplands, including just over 200 acres of hardwood. 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 lowland is dominated by Carbondale and Cathro mucks and some peats. Rousseau and Zimmerman fine sands and Escanaba loamy fine sand, which are well drained soils found on level to rolling hills, dominate the uplands.

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

The compartment is contiguous State land with one private landowner within. State land adjoins the compartment on all sides except the far north/northeast. The area is heavily used by loggers, hunters, fishermen, campers, trappers, and ATV riders.

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

West Branch of the Escanaba and North Branch of the Ford Rivers

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

No Archeological, Historical, or Cultural Features known.

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

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

The northern region of this compartment borders the West Branch Escanaba River. The West Branch Escanaba River is a designated Type 1 trout stream less than 50-ft wide and has a predicted mean July temperature of 67.3 °F (cool stream). The southern region of this compartment borders the North Branch Ford River. The North Branch Ford River is a Type 1 trout stream less than 50-ft wide and has a predicted mean July temperature of 66.9 °F (cool stream). 300' buffers are recommended for the West Branch Escanaba River and the North Branch Ford River in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, a minimum 100 feet, plus 5 feet per 1% increase in slope, buffer is recommended to protect riparian areas in accordance with Best Management Practices.

### Wildlife Habitat Considerations:

Aspen harvest should provide age class diversity that is favorable for grouse, woodcock, deer, bear and numerous songbirds. Den and snag trees should be retained for both game and non-game species. Mesic conifers and lowland conifers should be retained and promoted whenever possible to provide diversity, and cover.

## 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 Pit is just outside the southwest end of the compartment; the pit is currently leased to the Dickinson County Road Commission. Most of the compartment consists of low wetlands, but there is some good potential for sand & gravel in the compartment on the few isolated upland drumlins. However, the compartment might be too far from populated areas (markets) for any aggregate resources present to have much economic potential beyond use by the county road commission or DNR for local road maintenance. Some remote geophysical surveys covering this area have been conducted and have revealed a potential metallic mineral target in the subsurface of the south end of the compartment in the form of a linear magnetic anomaly. No known boreholes have been drilled to test this geophysical feature, but the site has good potential for future exploration, and State-owned mineral rights covering the feature are currently leased or nominated for leasing. The State does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, the surface

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owner must provide the owner of the mineral rights reasonable access to the surface for mineral exploration and development.

#### **Vehicle Access:**

Buckler Road & Skelly Ranch Road are the primary access along the south third; additional access is via unimproved two-track roads. The north portion of the State land in this compartment is accessed via private property over a private bridge.

### **Survey Needs:**

None

#### **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:**

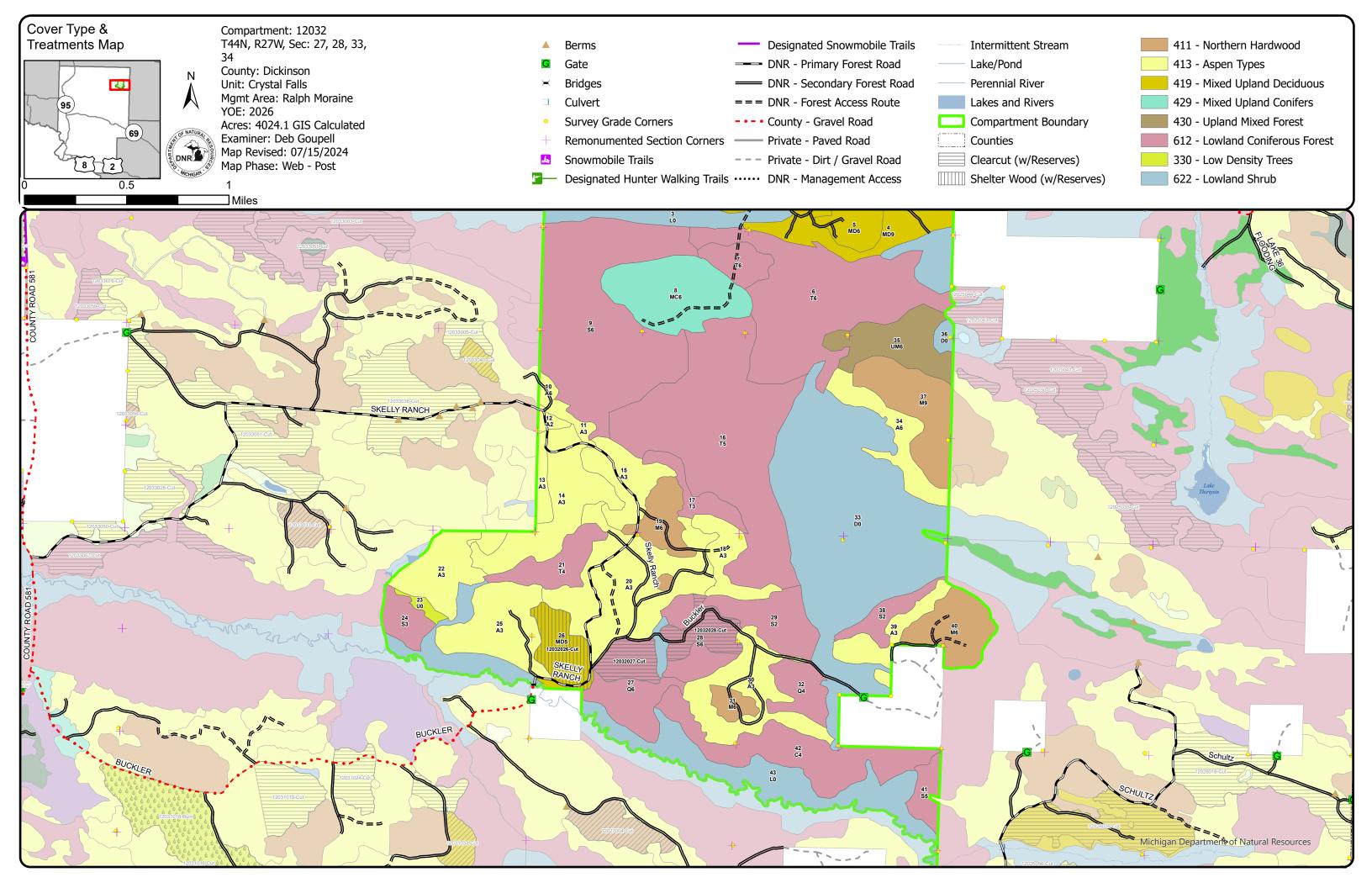
The following reports from the Inventory are attached:

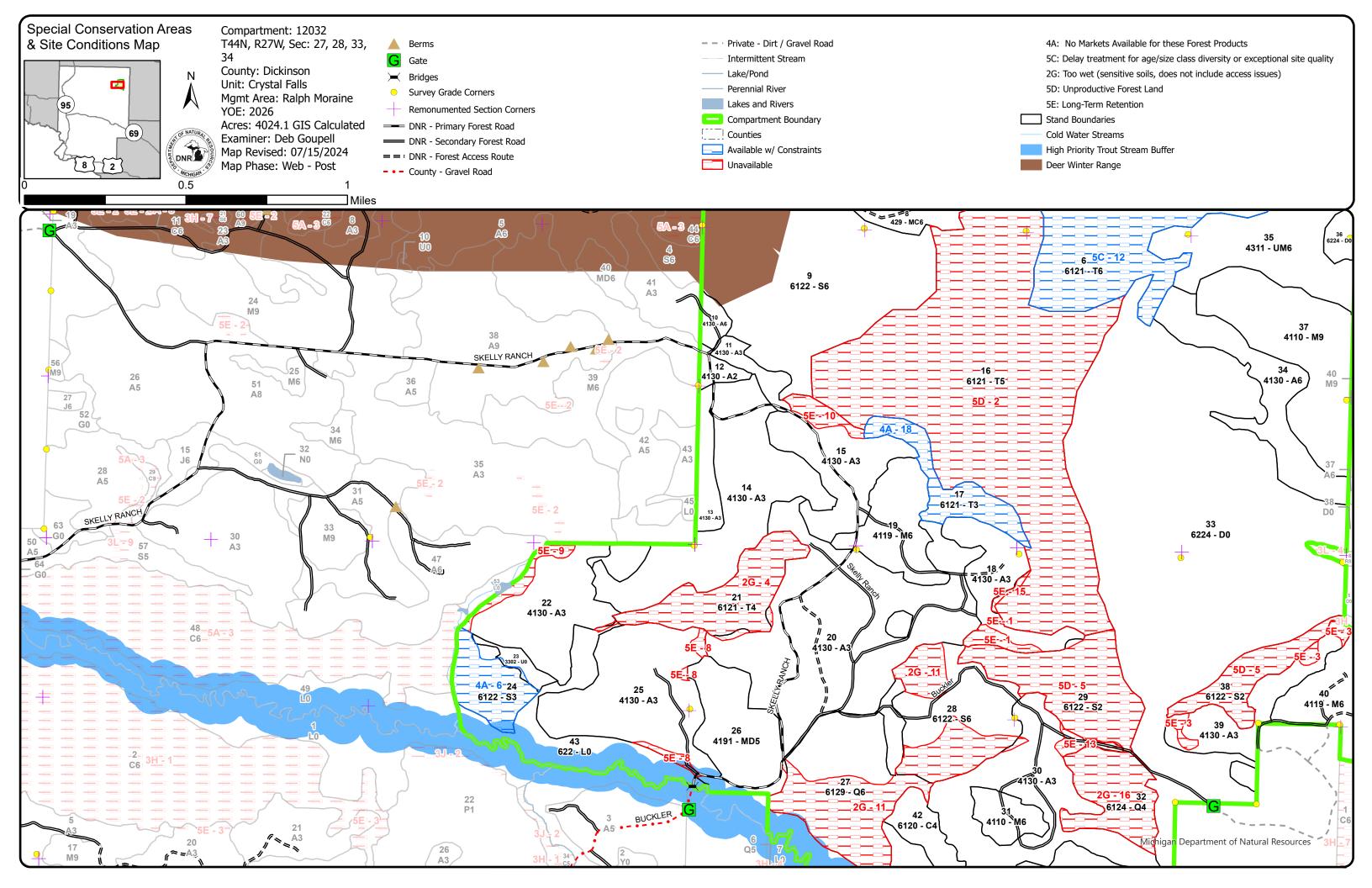
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

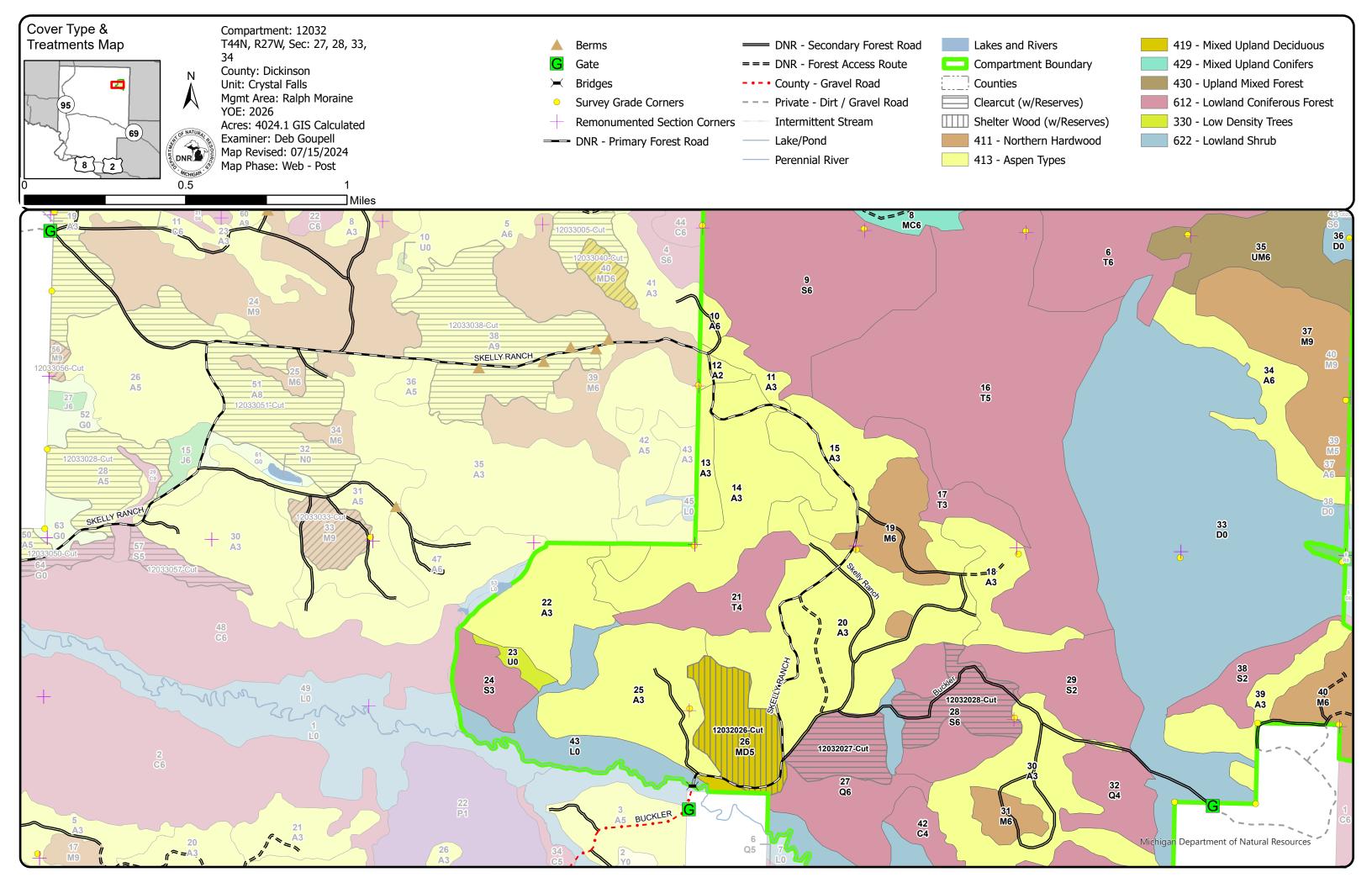
The following information is displayed, where pertinent, on the attached compartment maps:

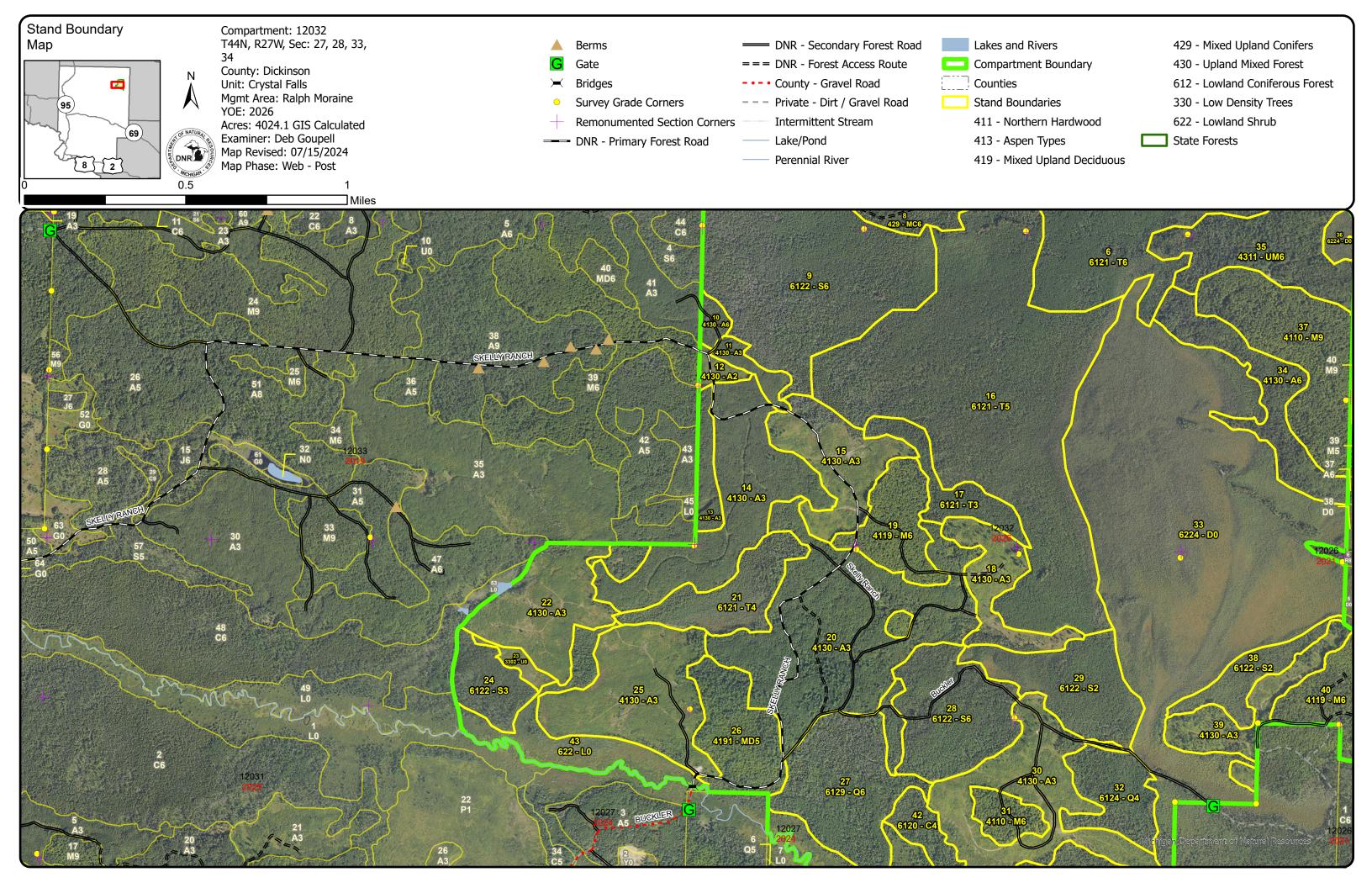
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries

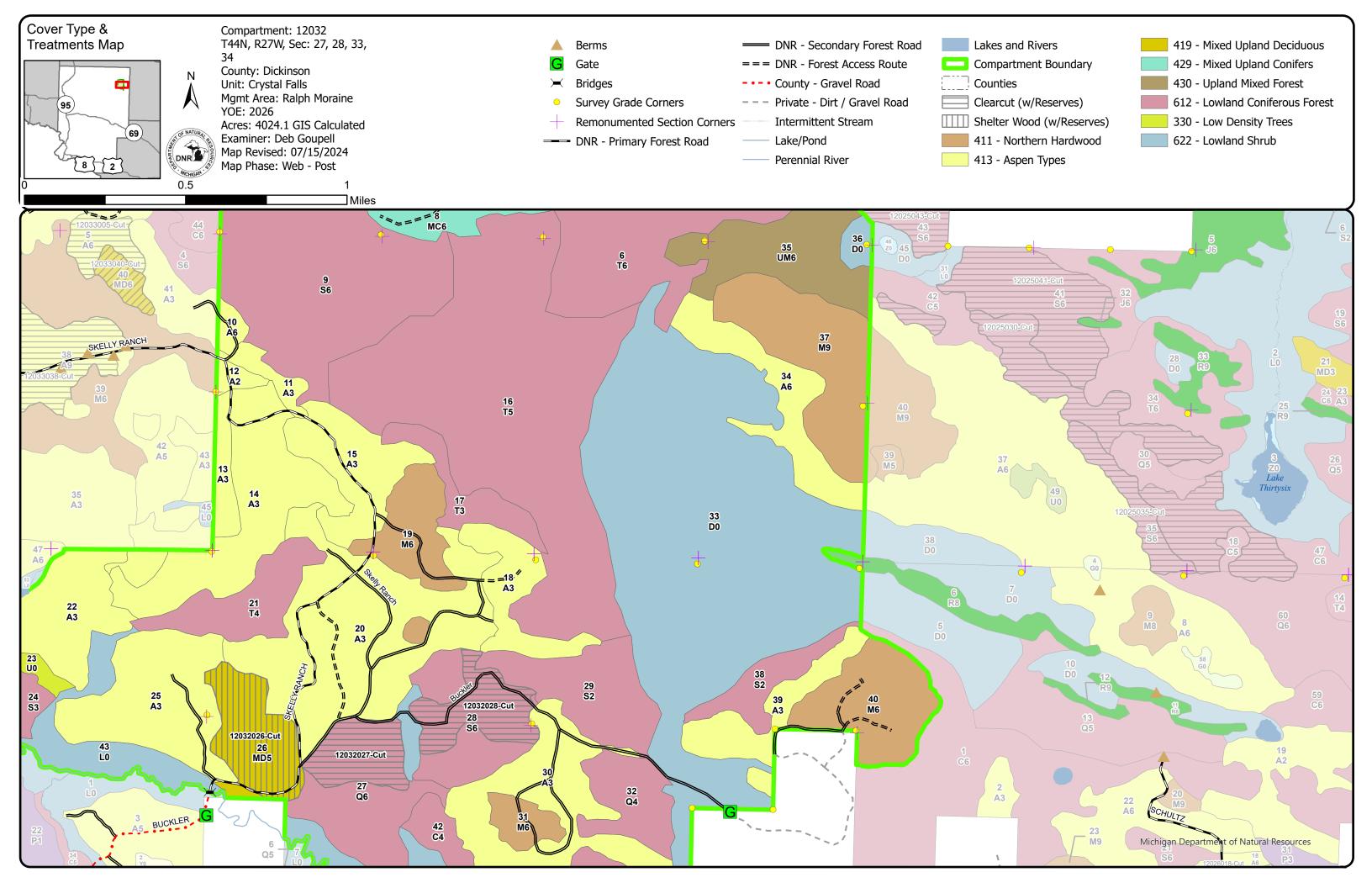
Details on the road access system

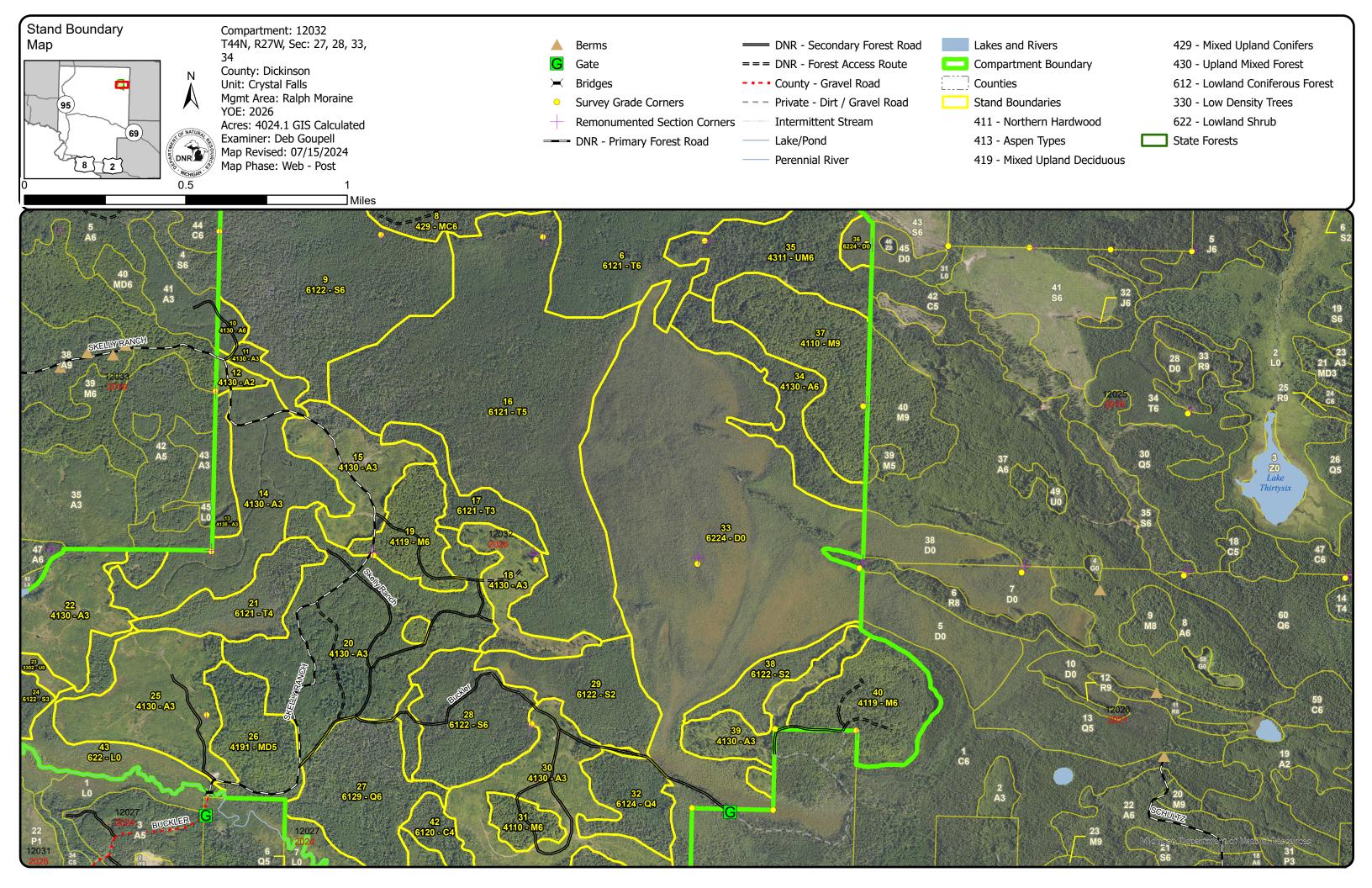


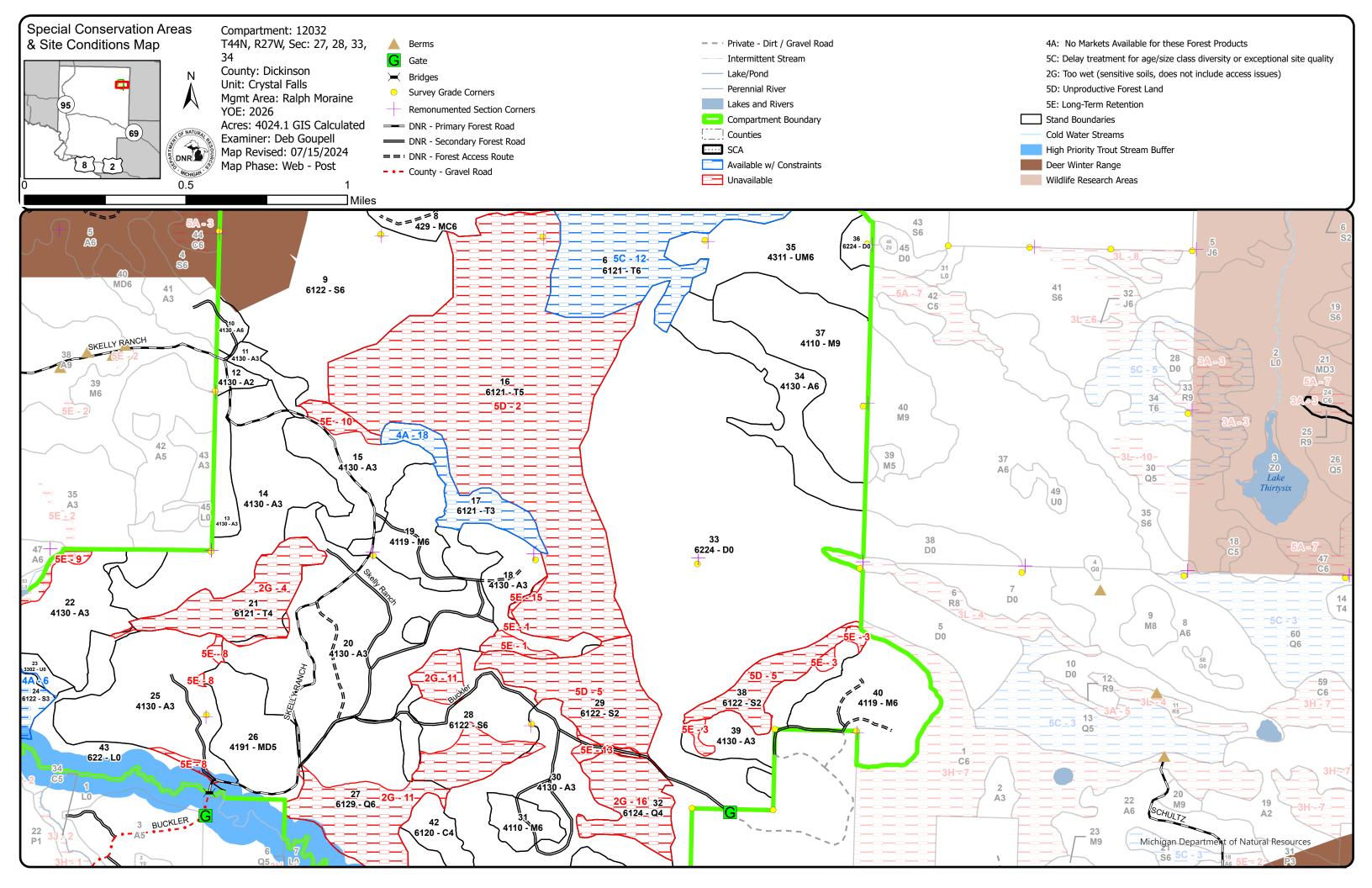












Compartment 32 Year of Entry 2026

**Crystal Falls Mgt. Unit Deb Goupell: Examiner** 



## Age Class

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Aspen	0	420	42	297	32	60	0	0	0	0	0	0	0	0	0	0	0	0	851
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	133	0	0	0	0	0	133
Low-Density Trees	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	20
Lowland Conifers	0	0	0	0	0	0	0	0	87	0	41	0	0	0	0	0	0	0	128
Lowland Shrub	383	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	382
Lowland Spruce/Fir	0	0	0	0	0	0	0	327	0	133	97	0	0	0	0	0	0	0	556
Mixed Upland Deciduous	0	0	0	0	0	0	55	0	0	45	0	0	166	0	0	0	0	0	266
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	48	182	0	0	0	0	0	0	230
Tamarack	0	0	0	0	0	0	307	0	0	33	365	49	0	0	0	0	0	0	754
Treed Bog	492	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	492
Upland Conifers	0	0	0	0	0	0	126	0	0	0	0	0	0	0	0	0	0	0	126
Upland Mixed Forest	0	0	0	0	0	80	0	0	0	0	0	0	0	0	0	0	0	0	80
Total	882	420	42	297	32	140	488	327	87	211	571	231	299	0	0	0	0	0	4025



## **Report 2 - Treatment Summary**

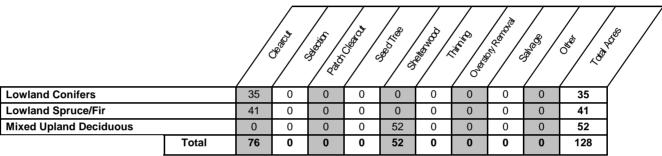
Crystal Falls Mgt. Unit Year of Entry: 2026

#### **Acres of Harvest**

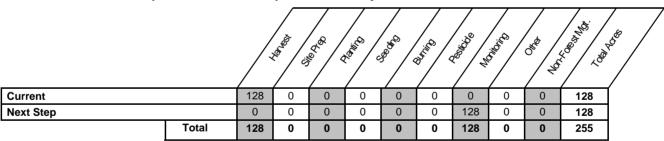
Compartment 32
Total Compartment Acres: 4,024

Commercial Harvest - 128 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

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**Treatment** Name

Acres Stand CoverType

Size Density

Stand BA Age Range

**Treatment** Type

**Treatment** Method

**Cover Type** Objective

Compartment: 32

Year of Entry: 2026

Age Structure

Two-Aged

Habitat Cut

#### **Proposed Treatments:**

12032026-Cut

51.7 4191 - Mixed Upland Deciduous

with Conifer

Poletimber 55 81-110 Medium

Harvest

Shelterwood

4319 - Mixed Upland Forest No

Prescription Shelterwood Harvest: Do not cut any cedar, hemlock, oak. Retain a mix of the pine, aspen, and hardwood species to maintain

Specs:

approximately 40 to 50 BA residual throughout.

Next Step Treatments:

Acceptable mixed pine, mixed aspen, mixed softwood, hardwood

Monitoring, Natural Regen (Re-Inventory)

Regen:

The intent of the harvest is maintain a mixed upland Forest cover type with pine and hardwood vs conversion to aspen. Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2025

12032027-Cut 27

34 7

6129 - Mixed Coniferous Lowland

Forest

Poletimber 79

Well

Unspec ified

Harvest

Clearcut with Retention

6129 - Mixed Even-Aged Coniferous

Lowland Forest

Nο

Prescription Harvest all stems 2" and greater within sale treatment area. Cedar, white pine, red pine will be retained. No additional retention as only a

portion of stand is being cut. Specs:

Next Step

Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

Acceptable tamarack, mixed spruce, aspen species, mixed softwood or hardwood will be acceptable

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2025

12032028-Cut

41.3 6122 - Black Spruce Poletimber Well

Unspec ified

Harvest

Clearcut

612 - Lowland Coniferous Forest

Even-Aged

No

Prescription Harvest all stems 2" dbh and greater except cedar, red pine, white pine. Winter harvest recommended.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable mixed spruce, tamarack, aspen species, mixed softwood or hardwood acceptable

Regen:

Treatment area may be adjusted depending on merchantability and operability. <u>Other</u>

Comment:

Site Condition

Proposed Start Date: 10/1 /2025

**Total Treatment** Acreage Proposed: Crystal Falls Mgt. Unit

**Deb Goupell: Examiner** 

Availa	ability for	Managemer	nt								
Total	Acres	Acres Avail	Acres	De	omina	nt Site	e Cond	ditions	S		
Acres	Available	With Condition	Not Available		4A	5C	2G	2H	3J	5D	5E
851	810	0	41	Aspen			2			0	38
133	128	0	5	Cedar				5			
7	7	1	0	Low-Density Trees	1						
20	0	0	20	Lowland Aspen/Balsam Poplar			20				
128	35	0	94	Lowland Conifers			93				0
382	382	0	0	Lowland Shrub			0	0			
555	371	29	156	Lowland Spruce/Fir	29		37	25		94	0
265	55	187	23	Mixed Upland Deciduous		187	0		23		
230	230	0	0	Northern Hardwood							
754	0	340	414	Tamarack	30	309	49			364	1
492	492	0	0	Treed Bog							
126	126	0	0	Upland Conifers							
80	80	0	0	Upland Mixed Forest							
4,024	2,715	556	753	Total Forested Acres	60	496	203	30	23	457	40
	67%	14%	19%	Relative Percent							

<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.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
2	Unavailable	5D: Unproductive Forest Land	364	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: low site index, slow	growing stand					
3	Unavailable	5E: Long-Term Retention	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

# Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Deb Goupell: Examiner

4	Unavailable	e 2G: Too wet (sensitive soils, does not include access issues)		5D: Unproductive Forest Land	4A: No Markets Available for these Forest Products	Unspecified	Unspecified
	Comments: This is a slowly filling	ng in bog, trees are primarily uni	mercha	antable			
5	Unavailable	5D: Unproductive Forest Land	94	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
	Comments: Stand has been gro	owing very slowly, has small dia	meter				
6	Available	4A: No Markets Available for these Forest Products	29	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Average dbh of spr	uce is 4"					
7	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	31	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
9	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

# Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Deb Goupell: Examiner

10	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
11	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	91	5A: Not able to obtain desirable regeneration	Unspecified	Unspecified	Unspecified
	comments: mall diameters						
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	277	Unspecified	Unspecified	Unspecified	Unspecified
	comments: tand only average	s 7" dbh					
13	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
14	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	23	Unspecified	Unspecified	Unspecified	Unspecified
	comments: nis is the 300 ft bu	ffer if clear cut; if select cut, a n	arrowei	buffer may be implemented			
15	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
С	Comments:						
							_

## Report 4 - Site Conditions

Compartment: 32 Year of Entry: 2026

**Crystal Falls Mgt. Unit** 

**Deb Goupell: Examiner** 

this piece could not be harvested previously; much of it is partial floodplain

Unavailable Unspecified Unspecified Unspecified 16 2G: Too wet (sensitive 41 5A: Not able to obtain soils, does not include desirable regeneration access issues) Comments: Unspecified 5C: Delay treatment for Unspecified Unspecified Unspecified 17 **Available** 33 age/size class diversity or exceptional site quality Comments: will be managed with stand 8 next entry 5B: Maintain for Unspecified Unspecified Unspecified 18 30 **Available** 4A: No Markets Available for these Forest Products regeneration purposes Comments: 5C: Delay treatment for Unspecified Unspecified Unspecified Unspecified 19 **Available** 187 age/size class diversity or exceptional site quality Comments: overall stand will hold til stand 7 & 8 are ready at next entry; portable bridge will be needed 21 2G: Too wet (sensitive 20 Unspecified Unspecified Unspecified Unspecified Unavailable soils, does not include access issues) 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 Compartment: 32





## 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 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 loopenings 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 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 communities are ecologically and socially significant in their effect as 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

Report 7 - Stands



Stan	d Level 4 Co	Level 4 Cover Type		Size Density		Acres	Stand Age	BA Range	nge Managed Site		General Comments		
1	6111 - Lowland	d Balsam F	Poplar Sav	Sawtimber Medium		m 19.8	95 l	Jnspecified	N/A				
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size			
No	orthern White Cedar	5	Log/Pole	11		Hazelnı	ıt (American)	Low	< 5 feet	Tall Shrub			
	Tamarack	10	Pole	9						,			
	Balsam Poplar	75	Log	14	95								
	Red Maple	10	Log	12									
2	4134 - Aspe	en, Spruce	/Fir	Saplino	g Well	30.4	15 l	Jnspecified	N/A		Two Rivers TS cut 2009		
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size			
	Quaking Aspen	75	Sapling	1	15	Hazelnu	ıt (American)	Low	< 5 feet	Tall Shrub			
	Balsam Fir	10	Pole/Sapling	5									
	Balsam Poplar	5	Sapling	1									
	White Spruce	10	Pole/Sapling	5									
3	622 - Low	vland Shrul	)	Nonsto	ocked	165.6	Į	Jnspecified	No				
4		onifer			er Well		113	81-110	N/A		300 foot buffer from W. Br. Escanaba River has birch 10-12" dbh, Far east portion of this stand was cut in 2008 (Two Rivers TS), leaving all pine. Understory is red maple, aspen 1-2" dbh in this portion with little to		
	Canopy Species	% Cover	Size Class	DBF	1 1 2 2 2	Sub-Ca	nopy Species	s Density	Ava Haiaht				
1				_	l Age		., .		Avg. Height	Size	no pine regeneration. Unmerchantable conifers were left in this far east		
	Bigtooth Aspen	5	Log	11	Age	Re	d Maple	Medium	10 - 20 feet	Sapling	portion. Most of the red pine is on south center of stand and could use a		
	Balsam Fir	5	Log Pole	11 7		Re Quak	d Maple ing Aspen	Medium Medium	10 - 20 feet 5 - 10 feet	Sapling Sapling			
	Balsam Fir White Pine	5 5 25	Log Pole XLog/Log	11 7 18	113	Re Quak Ba	d Maple sing Aspen Isam Fir	Medium Medium Medium	10 - 20 feet 5 - 10 feet Variable	Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a		
	Balsam Fir White Pine Red Pine	5 5 25 10	Log Pole XLog/Log Log/XLog	11 7 18 16		Re Quak Ba	d Maple ing Aspen	Medium Medium	10 - 20 feet 5 - 10 feet	Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a		
	Balsam Fir White Pine Red Pine Sugar Maple	5 5 25 10 10	Log Pole XLog/Log Log/XLog Pole	11 7 18 16 9		Re Quak Ba	d Maple sing Aspen Isam Fir	Medium Medium Medium	10 - 20 feet 5 - 10 feet Variable	Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a		
	Balsam Fir White Pine Red Pine Sugar Maple Red Maple	5 5 25 10 10 25	Log Pole XLog/Log Log/XLog Pole Log/Pole	11 7 18 16 9 10		Re Quak Ba	d Maple sing Aspen Isam Fir	Medium Medium Medium	10 - 20 feet 5 - 10 feet Variable	Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a		
	Balsam Fir White Pine Red Pine Sugar Maple	5 5 25 10 10	Log Pole XLog/Log Log/XLog Pole	11 7 18 16 9		Re Quak Ba	d Maple sing Aspen Isam Fir	Medium Medium Medium	10 - 20 feet 5 - 10 feet Variable	Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a		
5	Balsam Fir White Pine Red Pine Sugar Maple Red Maple	5 5 25 10 10 25 10	Log Pole XLog/Log Log/XLog Pole Log/Pole Pole/Log	11 7 18 16 9 10		Re Quak Ba Wh	d Maple sing Aspen Isam Fir	Medium Medium Medium	10 - 20 feet 5 - 10 feet Variable	Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a thinning when this stand is treated next entry.  The true hardwood of this stand is only about 5 acres in the south center;		
5	Balsam Fir White Pine Red Pine Sugar Maple Red Maple Paper Birch	5 5 25 10 10 25 10	Log Pole XLog/Log Log/XLog Pole Log/Pole Pole/Log	11 7 18 16 9 10 10	113 eer Well	Re Quak Ba Wh	d Maple ing Aspen Isam Fir nite Pine	Medium Medium Medium Low	10 - 20 feet 5 - 10 feet Variable < 5 feet	Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a thinning when this stand is treated next entry.  The true hardwood of this stand is only about 5 acres in the south center; otherwise stand is mostly birch/red maple. Some conifer (& princess		
5	Balsam Fir White Pine Red Pine Sugar Maple Red Maple Paper Birch 4199 - Other Mixe	5 5 25 10 10 25 10	Log Pole XLog/Log Log/XLog Pole Log/Pole Pole/Log	11 7 18 16 9 10 10	113 Der Well	Re Quak Ba Wh 44.7 Sub-Ca	d Maple  ing Aspen  Isam Fir  nite Pine	Medium Medium Medium Low	10 - 20 feet 5 - 10 feet Variable < 5 feet	Sapling Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a thinning when this stand is treated next entry.  The true hardwood of this stand is only about 5 acres in the south center;		
5	Balsam Fir White Pine Red Pine Sugar Maple Red Maple Paper Birch  4199 - Other Mixe	5 5 25 10 10 25 10 d Upland E	Log Pole XLog/Log Log/XLog Pole Log/Pole Pole/Log  Deciduous Pole Size Class	11 7 18 16 9 10 10	113 eer Well	Re Quak Ba Wh  44.7  Sub-Cal	d Maple  ing Aspen  Isam Fir  nite Pine	Medium Medium Medium Low  81-110 B Density	10 - 20 feet 5 - 10 feet Variable < 5 feet  N/A  Avg. Height	Sapling Sapling Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a thinning when this stand is treated next entry.  The true hardwood of this stand is only about 5 acres in the south center; otherwise stand is mostly birch/red maple. Some conifer (& princess		
5	Balsam Fir White Pine Red Pine Sugar Maple Red Maple Paper Birch  4199 - Other Mixe Canopy Species Sugar Maple	5 5 25 10 10 25 10 d Upland E % Cover 25	Log Pole XLog/Log Log/XLog Pole Log/Pole Pole/Log  Deciduous Pole Size Class Pole	11 7 18 16 9 10 10 DBH 9	113 eer Well Age 95	Re Quak Ba Wh  44.7  Sub-Cal	d Maple Ling Aspen Isam Fir Lite Pine  80  Ropy Species Lite Pine	Medium Medium Medium Low  81-110 S Density Low	10 - 20 feet 5 - 10 feet Variable < 5 feet  N/A  Avg. Height Variable	Sapling Sapling Sapling Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a thinning when this stand is treated next entry.  The true hardwood of this stand is only about 5 acres in the south center; otherwise stand is mostly birch/red maple. Some conifer (& princess		
5	Balsam Fir White Pine Red Pine Sugar Maple Red Maple Paper Birch  4199 - Other Mixe  Canopy Species Sugar Maple Red Maple	5 5 25 10 10 25 10 d Upland E ** Cover 25 30	Log Pole XLog/Log Log/XLog Pole Log/Pole Pole/Log  Peciduous Pole Size Class Pole Log/Pole	111 7 18 16 9 10 10 DBH 9	113 eer Well Age 95	Re Quak Ba Wh  44.7  Sub-Cal	d Maple Ling Aspen Isam Fir Lite Pine  80  Ropy Species Lite Pine	Medium Medium Medium Low  81-110 S Density Low	10 - 20 feet 5 - 10 feet Variable < 5 feet  N/A  Avg. Height Variable	Sapling Sapling Sapling Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a thinning when this stand is treated next entry.  The true hardwood of this stand is only about 5 acres in the south center; otherwise stand is mostly birch/red maple. Some conifer (& princess		
5	Balsam Fir White Pine Red Pine Sugar Maple Red Maple Paper Birch  4199 - Other Mixe  Canopy Species Sugar Maple Red Maple Red Maple Paper Birch	5 5 25 10 10 25 10 4 Upland E 25 30 30 30	Log Pole XLog/Log Log/XLog Pole Log/Pole Pole/Log  Deciduous Pole Size Class Pole Log/Pole Log/Pole	111 7 18 16 9 10 10 Deletimb	113 eer Well Age 95	Re Quak Ba Wh  44.7  Sub-Cal	d Maple Ling Aspen Isam Fir Lite Pine  80  Ropy Species Lite Pine	Medium Medium Medium Low  81-110 S Density Low	10 - 20 feet 5 - 10 feet Variable < 5 feet  N/A  Avg. Height Variable	Sapling Sapling Sapling Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a thinning when this stand is treated next entry.  The true hardwood of this stand is only about 5 acres in the south center; otherwise stand is mostly birch/red maple. Some conifer (& princess		
5	Balsam Fir White Pine Red Pine Sugar Maple Red Maple Paper Birch  4199 - Other Mixe  Canopy Species Sugar Maple Red Maple Paper Birch  Quaking Aspen White Pine	5 5 25 10 10 25 10 Cover 25 30 30 10	Log Pole XLog/Log Log/XLog Pole Log/Pole Pole/Log  Deciduous Pole Size Class Pole Log/Pole Log/Pole Log/Pole Log XLog	111 7 18 16 9 10 10 DBH 9 10 10 12 20	113 eer Well Age 95	Re Quak Ba Wh  44.7  Sub-Ca Wh Ba	Maple Ling Aspen Isam Fir Lite Pine  80  Loopy Species Lite Pine  Isam Fir	Medium Medium Medium Low  81-110 S Density Low	10 - 20 feet 5 - 10 feet Variable < 5 feet  N/A  Avg. Height Variable	Sapling Sapling Sapling Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a thinning when this stand is treated next entry.  The true hardwood of this stand is only about 5 acres in the south center; otherwise stand is mostly birch/red maple. Some conifer (& princess		
	Balsam Fir White Pine Red Pine Sugar Maple Red Maple Paper Birch  4199 - Other Mixe  Canopy Species Sugar Maple Red Maple Paper Birch  Quaking Aspen White Pine	5 5 25 10 10 25 10 Cover 25 30 30 10 5	Log Pole XLog/Log Log/XLog Pole Log/Pole Pole/Log  Poeciduous Pole Log/Pole Log/Pole Log/Pole Log/Pole Log XLog	11	113 eer Well I Age 95 80	Re Quak Ba Wh  44.7 Sub-Cal Wh Ba	Maple Ling Aspen Isam Fir Lite Pine  80  Loopy Species Lite Pine  Isam Fir	Medium Medium Medium Low  81-110 S Density Low Medium  Low  Medium	10 - 20 feet 5 - 10 feet Variable < 5 feet  N/A  Avg. Height Variable Variable	Sapling Sapling Sapling Sapling Sapling Sapling	portion. Most of the red pine is on south center of stand and could use a thinning when this stand is treated next entry.  The true hardwood of this stand is only about 5 acres in the south center; otherwise stand is mostly birch/red maple. Some conifer (& princess pine) throughout. Rolling hills and bowls.		



Stand	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age	BA Range	Managed S	Site	General Comments			
7	6121	Tamarack		Poletimb	er Well	32.8	88	Unspecified	N/A		Looks healthy; some cedar on far south edge. Cut next entry.			
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size				
	Black Spruce	20	Pole	8		Ва	lsam Fir	Low	Variable	Sapling				
	Tamarack	80	Pole	8	88	Ta	ag Alder	High	Variable	Tall Shrub				
						Blac	k Spruce	Low	Variable	Sapling				
8	429 - Mixed l	Jpland Con	ifers	Poletimb	er Well	126.1	55	81-110	N/A		Pine and hemlock are throughout this stand. Much mortality of spruce/fir.  Hardwood is very poor stem quality and should not be managed as a			
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	hardwood type. Trace of black spruce/cedar on edges. Red pine thicker			
	White Spruce	5	Pole	10		Re	d Maple	Medium	Variable	Sapling	on far west.			
	White Pine	25	XLog/Log	20	107	Blac	k Spruce	Low	10 - 20 feet	Sapling				
	Red Pine	5	Pole	6		Wh	nite Pine	Low	Variable	Sapling				
	Red Maple	30	Pole	8	55	Ва	lsam Fir	Medium	Variable	Sapling				
	Hemlock	30	Log/Pole	16				,		•				
	Sugar Maple	5	Pole	9										
9	6122 - BI	ack Spruce	)	Poletimb	er Well	326.7	65	Unspecified	N/A		1953 photos show the north half of this stand was cut; 1964 photos show the south half of stand cut. First 3 chains of stand edges are largest dbh			
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size	the south hall of stand cut. First 3 chains of stand edges are largest dbif			
	Black Spruce	50	Pole/Saplin	g 5	65	Ва	lsam Fir	Low	Variable	Sapling				
No	orthern White Cedar	10	Pole	8		Ta	ag Alder	High	5 - 10 feet	Tall Shrub				
	Tamarack	40	Pole/Saplin	g 6				'						
10	4130	- Aspen		Poletimb	er Well	7.3	30	Unspecified	N/A		Hilsinki TS cut in 1992 adjacent Comp 33			
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size				
	Quaking Aspen	80	Pole/Saplin	g 5	30	Whi	te Spruce	Low	Variable	Sapling				
	Tamarack	10	Pole/Saplin	g 5										
	Balsam Poplar	10	Pole/Saplin	g 5										
11	4130	- Aspen		Saplin	g Well	11.8	15	Unspecified	N/A		Two Rivers Aspen TS 2008 diameters range from 2-4"			
	Canopy Species	% Cover	Size Class	DBI	l Age									
	Quaking Aspen	100	Sapling	3	15									
12	4130	- Aspen		Sapling	Medium	7.2	6	Unspecified	N/A		Cut summer 2018 with Tess' Farewell TS.			
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size				
	Quaking Aspen	75	Sapling	1	6	Sug	jar Maple	Low	Variable	Sapling				
	Bigtooth Aspen	25	Sapling	1	6					,				
13	4130	- Aspen		Saplin	g Well	24.8	32	Immature	N/A		Part of Bear in the Bush TS Comp 33 cut 1992; southwest portion does			
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	not line up with the sale map but imagery confirms cut with this sale.			
	Quaking Aspen	100	Sapling	3	32	Sug	ar Maple	Low	5 - 10 feet	Sapling				
						D -	Isam Fir	Low	Variable	Sapling				

Crystal Falls Mgt. Unit Report 7 – Stands



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed \$	Site	General Comments
14	4130	- Aspen		Sapling	y Well	108.3	24	Unspecified	N/A		Skelly Ranch Rd TS 1999
	Canopy Species	% Cover	Size Class	DBH	Age						
	Sugar Maple	3	Sapling	2							
	Quaking Aspen	92	Pole/Sapling	5	24						
	Balsam Fir	5	Pole/Sapling	5							
15	4130	- Aspen		Sapling	y Well	60.7	6	Immature	N/A		Cut summer/fall 2018 Tess' Farewell TS.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Sugar Maple	3	Sapling	1							
	Bigtooth Aspen	20	Sapling	1							
	White Pine	2	XLog	20							
	Quaking Aspen	75	Sapling	1	6						
16	6121 - <sup>-</sup>	Гатагаск	Po	oletimbe	Medium	365.0	97	Unspecified	N/A		Low site index, slow growing. Black spruce dbh ranges from 1-4"
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Black Spruce	35	Sapling	3		Bal	lsam Fir	Low	Variable	Sapling	
No	orthern White Cedar	5	Pole	8		Та	ng Alder	Medium	< 5 feet	Tall Shrub	
	Tamarack	60	Pole/Sapling	6	97						
17	6121 - <sup>-</sup>	Гатагаск		Sapling	y Well	30.3	59	Unspecified	N/A		Some cedar along south edge. Black spruce also more prominent along
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Specie	s Density	Avg. Height	Size	stand edges.
	Tamarack	90	Sapling/Pole	: 4	59	Та	ıg Alder	High	Variable	Tall Shrub	
	Black Spruce	10	Sapling	4							
18	4130	- Aspen		Sapling	y Well	41.7	6	Immature	N/A		Stand cut fall 2018 Tess' Farewell TS.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Bigtooth Aspen	5	Sapling	1							
	Quaking Aspen	70	Sapling	1	6						
	White Pine	5	XLog	20							
	Red Maple	20	Sapling	1							
19	4119 - Mixed No	orthern Hard	dwoods F	Poletimb	er Well	48.1	99	81-110	N/A		Cut summer 2017 in Tess' Farewell TS.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Specie	s Density	Avg. Height	Size	
	Quaking Aspen	2	Log	12		Hazelnu	ut (American)	Medium	< 5 feet	Tall Shrub	
	Paper Birch	15	Log/Pole	10		Sug	ar Maple	Low	< 5 feet	Sapling	
	. apo. =	.0			1.1						
	Red Maple	5	Pole	8		Irc	onwood	High	Variable	Sapling	
			Pole Log			Irc	onwood	High	Variable	Sapling	



Stanc	Level 4 C	over Type	5	Size De	ensity	Acres	Stand Age	BA Range	Managed S	Site	General Comments					
20	4130	- Aspen		Sapling	g Well	189.1	22	Unspecified	N/A		White pine and birch regen is heaviest along roads. Aspen dbh ranges					
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Specie	s Density	Avg. Height	Size	from 4-8".,Trace black spruce. Horned Owl TS cut 1991					
	Bigtooth Aspen	30	Pole/Sapling	5		Red	d Pine	Low	5 - 10 feet	Sapling						
	White Spruce	5	Sapling/Pole	4		Suga	ar Maple	Medium	10 - 20 feet	Sapling						
	Quaking Aspen	48	Pole/Sapling	5	22	Bals	sam Fir	Low	Variable	Sapling						
	White Pine	2	XLog	18		White	e Spruce	Low	Variable	Sapling						
	Balsam Fir	10	Pole/Sapling	5		Whi	te Pine	Medium	5 - 10 feet	Sapling						
	Paper Birch	5	Sapling	2		Hazelnut	t (American)	High	< 5 feet	Tall Shrub						
21	6121 - '	Tamarack	Po	oletimb	er Poor	49.0	100	Unspecified	N/A		Low site quality					
	Canopy Species	% Cover	Size Class	DBH	l Age											
	Black Spruce	30	Pole	6												
No	rthern White Cedar	10	Pole	8												
	Tamarack	60	Pole	6	100											
22	4130	- Aspen		Sapling	g Well	68.6	8	Immature	N/A		Sale cut Bucky Beaver TS fall 2016 #12-002-16. Retention focused along					
	Canopy Species	% Cover	Size Class	DBH	l Age						west edge					
	White Pine	5	Log/Pole	10												
	Quaking Aspen	95	Sapling	1	8											
23	3302 - Low Den	nsity Conife	Trees	Nonsto	ocked	7.3	0	Unspecified	613 - Lowland M	lixed Forest	Cut Bucky Beaver TS #12-002-16. Was part of stand 24 to south, was mostly black spruce with some tamarack that was cut.					
24	6122 - BI	ack Spruce	;	Sapling	g Well	30.5	95	Unspecified	N/A		Large cedar along north edge of stand with black spruce scattered in.					
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Specie	s Density	Avg. Height	Size	Trees are SLOW growing.					
	Black Spruce	85	Pole/Sapling	4	95	Tag	g Alder	Low	Variable	Tall Shrub						
No	rthern White Cedar	13	Pole/Log	10												
	Tamarack	2	Pole	9												
25	4130	- Aspen		Sapling	g Well	96.7	8	Immature	N/A		Cut with Bucky Beaver TS #12-002-16					
	Canopy Species	% Cover	Size Class	DBH	l Age											
		-	Sapling	1												
	Red Maple	5	Sapility	'												
	Red Maple White Pine	5	Log/Pole	10												

Report 7 - Stands Compartment: 32

	0. you	uno m	j 0				•				Year of Entry: 2026				
Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed \$	Site	General Comments				
26	4191 - Mixed Upla Co	and Decidu onifer	ous with Po	oletimber	Medium	54.6	55	81-110	N/A		There are some overmature aspen/spruce along road, particularly sou side. White pine is heaviest on edges and on the north.				
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size					
	Sugar Maple	10	Sapling	5		Sug	ar Maple	Medium	10 - 20 feet	Sapling					
	Quaking Aspen	10	Pole	9		Re	d Maple	Medium	Variable	Sapling					
	Red Maple	40	Pole	8	55	Ва	lsam Fir	Low	Variable	Sapling					
	White Pine	30	XLog	18	120	Haze	Inut (Spp.)	Medium	5 - 10 feet	Tall Shrub					
	Paper Birch	10	Pole	8		Wh	nite Pine	Low	< 5 feet	Sapling					
27	6129 - Mixed Conif	erous Lowl	and Forest F	Poletimb	er Well	87.2	79	Unspecified	N/A		Almost 2 different stands: black spruce heavier on north, tamarack on				
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	south. Spruce and tamarack healthy, good shape. Stand is wetter as you go south. First 4 chains from road are almost upland spruce.				
	Balsam Poplar	5	Log	12		Та	ıg Alder	High	Variable	Tall Shrub	go south. That 4 chains nom road are almost upland aprace.				
	Balsam Fir	5	Pole	7		Blac	k Spruce	Medium	5 - 10 feet	Sapling					
	Black Spruce	40	Pole	7		Ва	lsam Fir	Medium	Variable	Sapling					
	Tamarack	45	Pole	8	79										
No	rthern White Cedar	5	Pole	8											
28	6122 - B	lack Spruce	e F	Poletimb	er Well	78.7	87	Unspecified	N/A		Tamarack and spruce nearest road average 8" dbh as it is more upland.				
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	Trace amounts of red pine and white pine are along the road. Dwarf mistletoe is in this stand, particularly south side of road.				
	Black Spruce	55	Pole	6	87	Re	d Maple	Low	Variable	Sapling	mistace to in this starta, particularly count of the country				
	Tamarack	45	Pole	8		Та	ıg Alder	Medium	< 5 feet	Tall Shrub					
29	6122 - B	lack Spruce	e \$	Sapling N	/ledium	65.9	97	Unspecified	N/A		1939 photos show cut; West finger tag alder swale				
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size					
	Black Spruce	60	Sapling/Pole	5	97	Та	ıg Alder	High	5 - 10 feet	Tall Shrub					
No	rthern White Cedar	10	Pole/Sapling	g 7											
	Tamarack	30	Sapling/Pole	5											
30	4130	- Aspen		Sapling	Well	101.5	6	Immature	N/A		Couple white pine residuals. Cut summer 2018 Elsa's Art TS.				
	Canopy Species	% Cover	Size Class	DBH	Age										
	Tamarack	2	Sapling	1											
	Balsam Poplar	5	Sapling	1											
	Quaking Aspen	70	Sapling	1	6										

Red Maple

Sugar Maple

15

8

Sapling

Sapling

1 1 Report 7 - Stands



Stan	d Level 4 Cover Type			Size Density		Acres	Stand Age BA Range		Managed Site		General Comments
31	4110 - Sugar M	laple Asso	ciation I	Poletimb	er Well	17.7	100	81-110	N/A		Cut summer 2018 Elsa's Art TS. White birch is dying out.
	Canopy Species	% Cover	Size Class	DBH	I Age						
	Sugar Maple	80	Log/Pole	10	100						
	Paper Birch	5	Pole/Log	8							
	Quaking Aspen	10	Log	12							
	Ironwood	5	Pole	6							
32	6124 - Lowla	and Spruce	-Fir f	Poletimb	er Poor	40.8	99	Unspecified	N/A		Low density stand with small diameter trees and VERY wet.
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	s Density	Avg. Height	Size	
No	orthern White Cedar	20	Pole	8		Ta	g Alder	High	5 - 10 feet	Tall Shrub	
	Black Spruce	40	Pole/Sapling	5	99						-
	Balsam Fir	10	Pole/Sapling	5							
	Tamarack	30	Pole/Sapling	9 6							
33	6224 - T	reed Bog		Nonsto	ocked	483.2	ı	Unspecified	No		
34		- Aspen		Poletimb		59.5		Unspecified	N/A		Dead Squirrel TS cut 1978. Most of pine along south edge but scattered.  Most bf/ws has died and fallen out. Could be harvested if needed but
	Canopy Species	% Cover			I Age		nopy Species		Avg. Height	Size	should hold to cut when adjacent hardwood is ready
	Red Maple	20	Pole	7			k Spruce	Low	Variable	Sapling	
	White Pine	13	Log/XLog	14			sam Fir	Low	Variable	Sapling	
	Red Pine	2	XLog	20		Re	ed Pine	Medium	Variable	Sapling	
	Sugar Maple	5	Log/Pole	10							
	Quaking Aspen	60	Pole	7	45						
35	4311 - Pine	4311 - Pine, Aspen Mix Poletimber W		er Well	80.4	45 1-50		N/A		Dead Squirrel TS; (cut all species over 5"dbh plus some marked pine).	
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	s Density	Avg. Height	Size	Aspen mostly along south edge, center. Much BF/WS area dead.
	Tamarack	5	Pole	5		Re	ed Pine	Low	Variable	Sapling	
	White Pine	30	Log/Pole/Sap	p 14		Wh	ite Pine	Medium	Variable	Sapling	
	Red Pine	20	Log/Pole	12		Red	d Maple	Low	Variable	Sapling	
	Red Maple	5	Pole	8				'			
	Quaking Aspen	40	Pole	8	45						
36	6224 - T	reed Bog		Nonsto	ocked	8.6		Unspecified	No		
37	4110 - Sugar M	laple Asso	ciation	Sawtimb	er Well	94.8	101	81-110	N/A		Island Hardwood TS closed 2010. some sugar maple saplings and
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	s Density	Avg. Height	Size	seedlings 4-10 feet tall. white pine is browsed. Trace amounts of white and yellow birch.
I		2	Pole	40		Iro	nwood	Full	Variable	Sapling	
	Hemlock	2	1 010	10							
	Basswood	8	Log/Pole	12			sam Fir	Low	Variable	Sapling	
					101	Bal Wh		Low	Variable < 5 feet Variable		

Report 7 - Stands



tand	20101 4 0	over Type		Size De	,			BA Range	Managed S		General Comments
88	6122 - Black Spruce		<b>!</b>	Sapling Medium		28.5	86	Unspecified	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Specie	es Density	Avg. Height	Size	
	Black Spruce	60	Sapling	4	86	Ta	g Alder	High	5 - 10 feet	Tall Shrub	
	Tamarack	40	Sapling	4							
9	4130 - Aspen			Sapling Well		43.4	6	Immature	N/A		Some sugar maple poles were marked for reserve. Cut summer 201
	Canopy Species	% Cover	Size Class	DBH	l Age						Elsa's Art TS.
	Sugar Maple	10	Sapling	1							
1	Quaking Aspen	60	Sapling	1	6						
	White Pine	5	XLog/Log	18							
	Red Maple	15	Sapling	1							
	Sugar Maple	10	Log	10							
0			Poletimber Well		69.4 101		81-110		0:	Very light sugar maple seedlings 6" tall: Cut summer 2018 Elsa's Art	
	Canopy Species		Size Class		l Age		nopy Specie		Avg. Height	Size	
	Sugar Maple	70	Pole/Log	10	101		d Maple	Low	Variable	Sapling	
	Basswood	2	Log/Pole			Ва	Isam Fir	Low	5 - 10 feet	Sapling	
	Paper Birch	10	Pole/Log								
	Quaking Aspen thern White Cedar	13	Log/Pole Pole	11							
		3		9							
	Balsam Poplar	3	Log/Pole	11							
11	6122 - Black Spruce Po		Poletimber Medium		25.1	89	Unspecified	N/A		Possibility of a harvest from Comp 26 if stand is ever prescribed. Tamarack is small and in north third of stand. Appears to be very wet.	
12	6120 - Lowland Cedar		ır	Poletimber Poor		133.0	110	Unspecified	N/A		Very wet stand
	Canopy Species	% Cover	Size Class	DBF	l Age	Sub-Cai	nopy Specie	es Density	Avg. Height	Size	
	Tamarack	20	Pole	7		Та	g Alder	High	Variable	Tall Shrub	
Nor	thern White Cedar	60	Pole	9	110			'			,
IVUI	Black Spruce	20	Pole	7							