



# Compartment Review Presentation

## Crystal Falls Forest Management Unit

Compartment 12143

Entry Year 2023

Acreage: 763

County Iron

Management Area: Ralph Ground Moraine

---

**Revision Date:** 2021-08-16

**Stand Examiner:**

**Legal Description:**

Sections 1-3, T43N-R31W and sections 35-36, T44N-R31W

**Identified Planning Goals:**

Our management goals in this compartment are to develop age class distribution in aspen types, maintain health of conifer types and increase acreage where possible, and to develop the quality while maintaining diversity in hardwood types.

**Soil and topography:**

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

State land mixed with company land and small private parcels. State land and company lands used mainly for forest products and hunting. Private lands have some camps and full time residences.

**Unique Natural Features:**

Butler Lake is just to the NW of compartment.

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

**Special Management Designations or Considerations:**

None.

**Watershed and Fisheries Considerations:**

Butler Lake is near the northwest corner and may have wet areas in that region. 100ft. buffer if appropriate there.

**Wildlife Habitat Considerations:**

This compartment is located in the core part of the Mansfield Cut-Off Deeryard. Maintenance and enhancement of both the existing lowland conifer stands and the upland conifer component is critical to support healthy deer numbers in the area.

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

No known potential exists for commercial oil & gas production in this part of the state. The nearest active sand/gravel pit is three miles to the southeast. There may be some potential for sand & gravel within the compartment on the uplands. Extensive iron ore exploration was completed in the area of the compartment by Longyear around 1917. However, the nearest historic iron ore mining occurred three miles to the southwest. There does not appear to be iron ore potential beneath the compartment (or at least not at depths where it would be economical to mine). Potential for other metallic minerals is unknown but is considered low at this time. There has been no metallic mineral leasing activity within the compartment in the last 35 years. The State does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

**Vehicle Access:**

Vehicle access is East off Way Dam Road and south off Channing Road. Access to most of this compartment is through company lands.

**Survey Needs:**

None.

**Recreational Facilities and Opportunities:**

Hunting.

**Fire Protection:**

**Additional Compartment Information:**

None.

**The following reports from the Inventory are attached:**

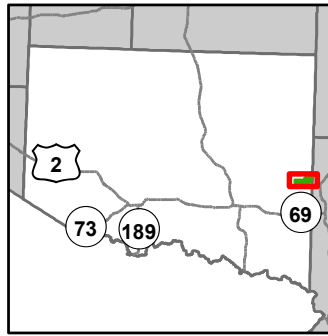
**Total Acres by Cover Type and Age Class**  
**Cover Type by Harvest Method**  
**Proposed Treatments – No Limiting Factors**  
**Proposed Treatments – With Limiting Factors**  
**Stand Details (Forested and Nonforested)**  
**Dedicated and Proposed Special Conservation Areas**  
**Site Condition Details**

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

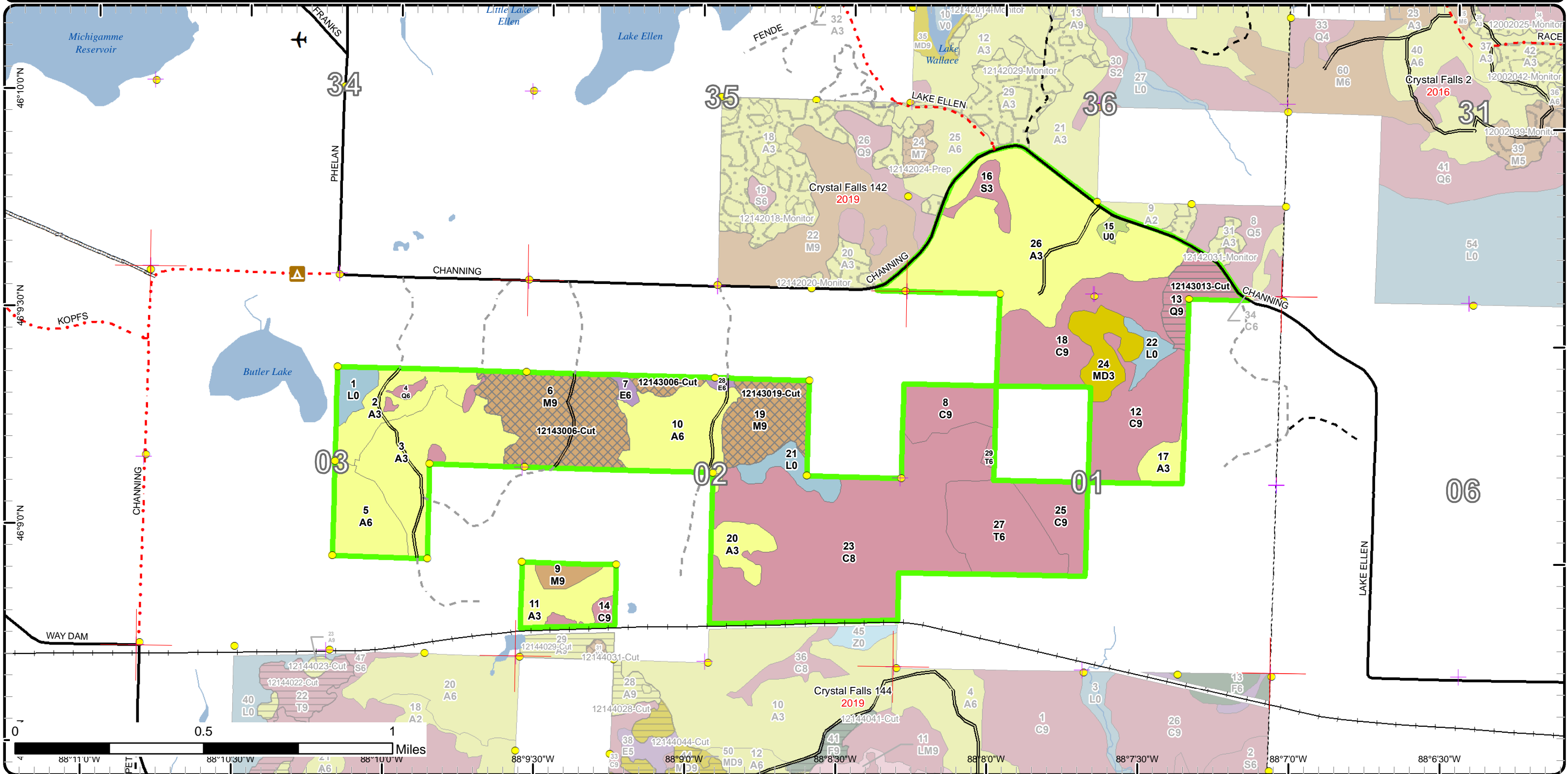
**Base feature information, stand boundaries, cover types, and numbers**  
**Proposed treatments**  
**Site condition boundaries**  
**Details on the road access system**

# Cover Type & Treatments Map

Compartment: 143  
 T43N, R31W, Sec. 1-3  
 T44N, R31W, Sec. 35, 36  
 County: Iron  
 Unit: Crystal Falls  
 Mgmt Area: Ralph Ground  
 Moraine  
 YOE: 2023  
 Acres: 763.3 GIS Calculated  
 Examiner: Scott Sebero  
 Map Revised: 12/28/2021  
 Map Phase: Post-Review



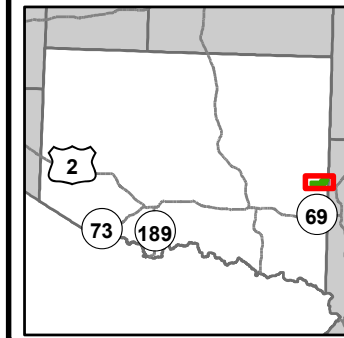
- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Secondary Forest Road
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- Active Railroads
- ✈ Airport
- ▲ Campground
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Pipeline
- Compartment Boundary
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 320 - Upland Shrub
- 622 - Lowland Shrub



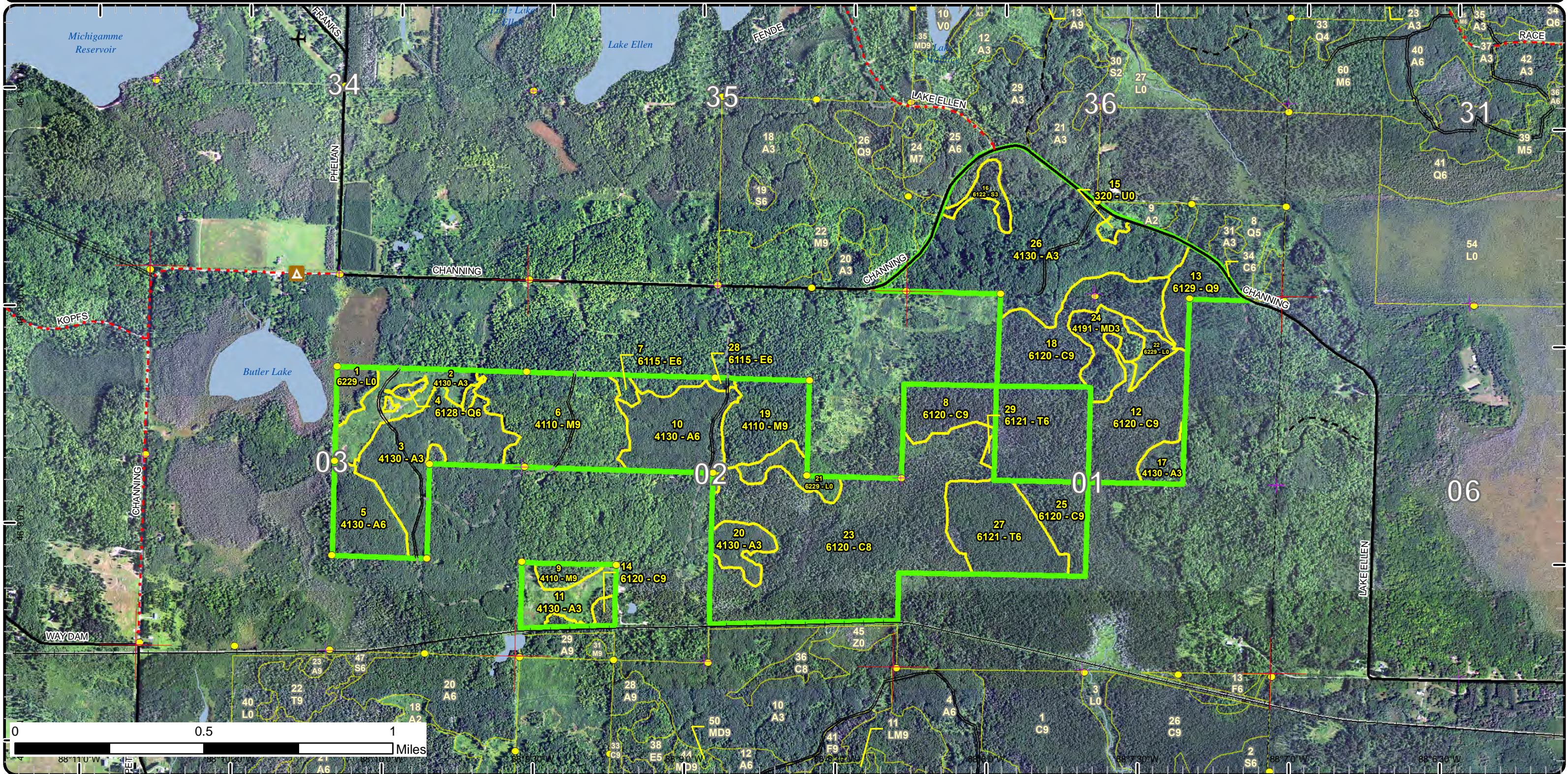


# Stand Boundary Map

Compartment: 143  
 T43N, R31W, Sec. 1-3  
 T44N, R31W, Sec. 35, 36  
 County: Iron  
 Unit: Crystal Falls  
 Mgmt Area: Ralph Ground  
 Moraine  
 YOE: 2023  
 Acres: 763.3 GIS Calculated  
 Examiner: Scott Sebero  
 Map Revised: 12/28/2021  
 Map Phase: Post-Review



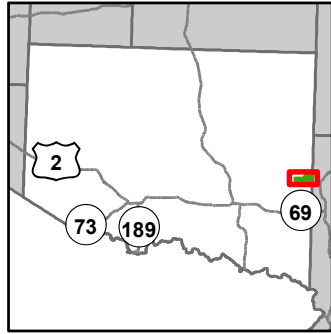
- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Secondary Forest Road
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- Active Railroads
- ✈ Airport
- ▲ Campground
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Pipeline
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 320 - Upland Shrub
- 622 - Lowland Shrub



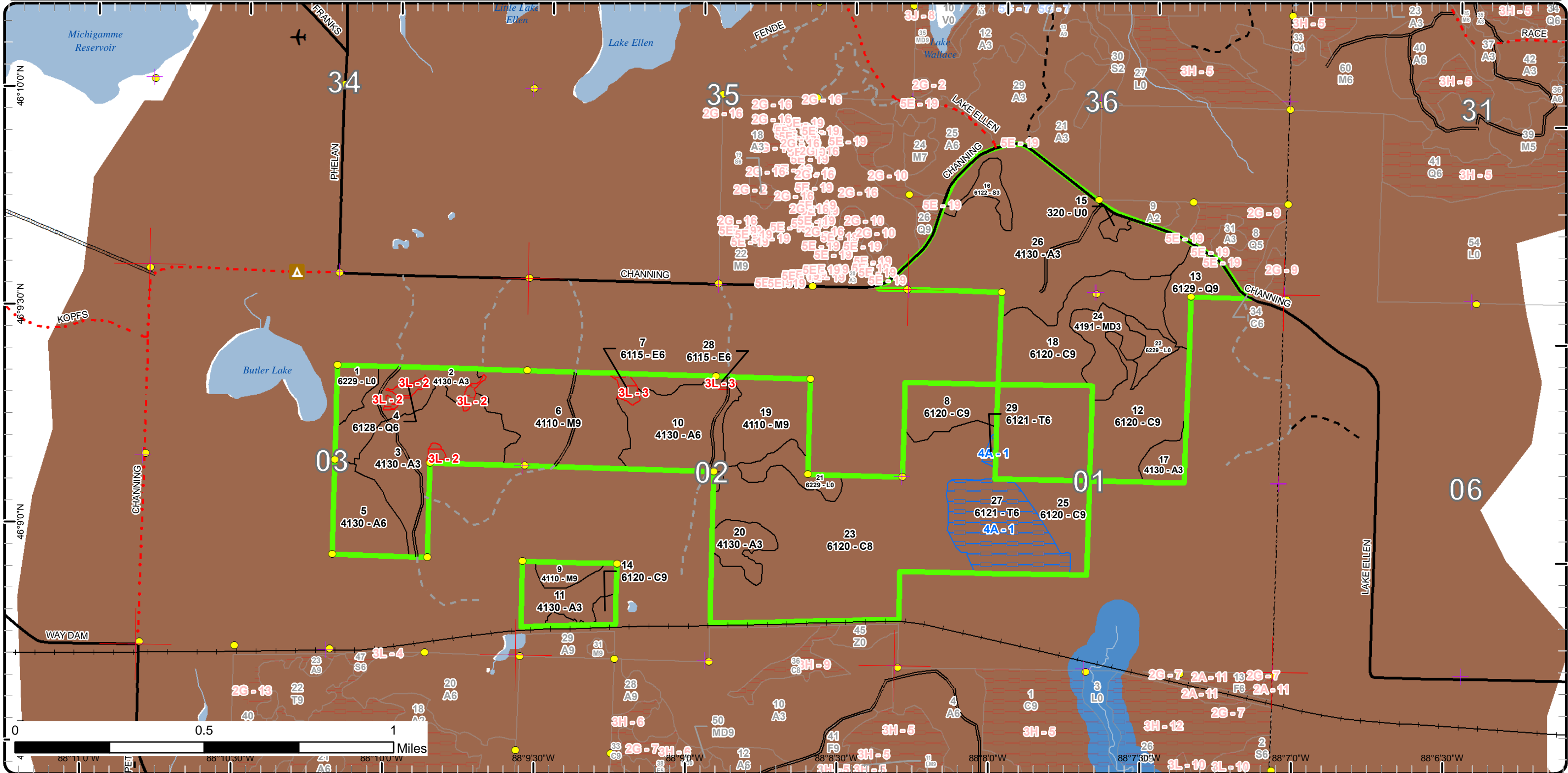


# Special Conservation Areas

Compartment: 143  
 T43N, R31W, Sec. 1-3  
 T44N, R31W, Sec. 35, 36  
 County: Iron  
 Unit: Crystal Falls  
 Mgmt Area: Ralph Ground  
 Moraine  
 YOE: 2023  
 Acres: 763.3 GIS Calculated  
 Examiner: Scott Sebero  
 Map Revised: 12/28/2021  
 Map Phase: Post-Review



- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Secondary Forest Road
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- Active Railroads
- ✈ Airport
- ▲ Campground
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Pipeline
- Compartment Boundary
- Available w/ Constraints
- 4A: No Markets Available for these Forest Products
- Unavailable
- 3L: Other wildlife concerns
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Deer Winter Range



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	40	50	132	60	0	0	0	0	0	0	0	0	0	0	0	0	0	282
Cedar	0	0	0	0	0	0	0	0	0	0	0	275	0	0	0	0	0	0	275
Lowland Conifers	0	0	0	0	0	0	0	0	0	17	5	0	0	0	0	0	0	0	22
Lowland Deciduous	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
Lowland Shrub	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Lowland Spruce/Fir	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	17
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	87	0	0	0	0	0	6	93
Tamarack	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	40
Upland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
<b>Total</b>	<b>26</b>	<b>40</b>	<b>50</b>	<b>132</b>	<b>67</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>21</b>	<b>5</b>	<b>362</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>766</b>



## Report 2 – Treatment Summary

Crystal Falls Mgt. Unit  
Year of Entry: 2023

Compartment 143  
Total Compartment Acres: 763

### Acres of Harvest

Commercial Harvest - 104  
Harvests with Site Condition - 0  
Next Step Harvest - 0  
Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Lowland Conifers	17	0	0	0	0	0	0	0	0	17
Northern Hardwood	0	87	0	0	0	0	0	0	0	87
<b>Total</b>	<b>17</b>	<b>87</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>104</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	104	0	0	0	0	0	0	0	0	104
Next Step	0	0	0	0	0	0	104	0	0	104
<b>Total</b>	<b>104</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>104</b>	<b>0</b>	<b>0</b>	<b>207</b>



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
-----------------------	-------------------	-------	--------------------	-----------------	--------------	-------------	-------------------	---------------------	-------------------------	------------------	----------------

**Approved Treatments:**

<b>6</b>	<b>12143006-Cut</b>	58.8	4110 - Sugar Maple Association	Sawtimber Well	100	141-170	Harvest	Single Tree Selection	411 - Northern Hardwood	Even-Aged	No
<p><u>Prescription</u> Mark to 80 BA. Leave all conifer.  <u>Specs:</u>  <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)  <u>Treatments:</u>  <u>Acceptable</u> Mix of maple, aspen and fir.  <u>Regen:</u>  <u>Other</u>  <u>Comment:</u>  <u>Site Condition</u>  <u>Proposed Start Date:</u> 10/1 /2022</p>											
<b>13</b>	<b>12143013-Cut</b>	16.8	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	80	81-110	Harvest	Clearcut with Retention	612 - Lowland Coniferous Forest	Even-Aged	No
<p><u>Prescription</u> Cut all trees with one or more pulpwood stick, except no cedar or white pine will be cut.  <u>Specs:</u>  <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)  <u>Treatments:</u>  <u>Acceptable</u> Mix of spruce and tamarack.  <u>Regen:</u>  <u>Other</u> Winter cut because of wet ground.  <u>Comment:</u>  <u>Site Condition</u>  <u>Proposed Start Date:</u> 10/1 /2022</p>											
<b>19</b>	<b>12143019-Cut</b>	27.9	4110 - Sugar Maple Association	Sawtimber Well	100	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Even-Aged	No
<p><u>Prescription</u> Mark to 80 BA. Leave all conifer.  <u>Specs:</u>  <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)  <u>Treatments:</u>  <u>Acceptable</u> Mix of maple, aspen and fir.  <u>Regen:</u>  <u>Other</u>  <u>Comment:</u>  <u>Site Condition</u>  <u>Proposed Start Date:</u> 10/1 /2022</p>											

**Total Treatment** 103.5  
**Acreage Proposed:**



## Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Scott Sebero : Examiner

Compartment: 143

Year of Entry: 2023

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	4A	3L
		With Condition	Not Available			
280	280	0	0	Aspen		
275	275	0	0	Cedar		
22	17	0	5	Lowland Conifers		5
4	0	0	4	Lowland Deciduous		4
24	24	0	0	Lowland Shrub		
7	7	0	0	Lowland Spruce/Fir		
17	17	0	0	Mixed Upland Deciduous		
92	92	0	0	Northern Hardwood		
40	0	40	0	Tamarack	40	
2	2	0	0	Upland Shrub		
763	715	40	9	Total Forested Acres	40	9
	94%	5%	1%	Relative Percent		

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	4A: No Markets Available for these Forest Products	40	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Stand looks healthy and trees are only averaging 6" diameter. Monitor for health concerns.							
2	Unavailable	3L: Other wildlife concerns	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
3	Unavailable	3L: Other wildlife concerns	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

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
<b>Comments</b>				





**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.

ERA = Ecological Reference Area  
HCVA = High Conservation Value Area  
SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																									
1	6229 - Mixed lowland shrub	Nonstocked	7.6		Unspecified	No																																										
2	4130 - Aspen	Sapling Well	22.6	6	Immature	N/A	Sale # 61-13																																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>100</td> <td>Sapling</td> <td>1</td> <td>6</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Quaking Aspen	100	Sapling	1	6	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Hazelnut (American)</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	Hazelnut (American)	Medium	5 - 10 feet	Tall Shrub																									
Canopy Species	% Cover	Size Class	DBH	Age																																												
Quaking Aspen	100	Sapling	1	6																																												
Sub-Canopy Species	Density	Avg. Height	Size																																													
Hazelnut (American)	Medium	5 - 10 feet	Tall Shrub																																													
3	4130 - Aspen	Sapling Well	49.7	16	Immature	N/A	sale # 73-03																																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>100</td> <td>Sapling/Pole</td> <td>4</td> <td>16</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Quaking Aspen	100	Sapling/Pole	4	16	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Hazelnut (American)</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	Hazelnut (American)	Medium	5 - 10 feet	Tall Shrub																									
Canopy Species	% Cover	Size Class	DBH	Age																																												
Quaking Aspen	100	Sapling/Pole	4	16																																												
Sub-Canopy Species	Density	Avg. Height	Size																																													
Hazelnut (American)	Medium	5 - 10 feet	Tall Shrub																																													
4	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	4.8	95	51-80	N/A																																										
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Balsam Fir</td> <td>5</td> <td>Pole</td> <td>6</td> <td></td> </tr> <tr> <td>Black Spruce</td> <td>40</td> <td>Pole/Log/Sap</td> <td>8</td> <td>95</td> </tr> <tr> <td>Northern White Cedar</td> <td>10</td> <td>Pole</td> <td>8</td> <td></td> </tr> <tr> <td>Tamarack</td> <td>15</td> <td>Pole/Sapling</td> <td>6</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>20</td> <td>Pole/Log/Sap</td> <td>8</td> <td></td> </tr> <tr> <td>Black Ash</td> <td>10</td> <td>Pole/Log/Sap</td> <td>8</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Balsam Fir	5	Pole	6		Black Spruce	40	Pole/Log/Sap	8	95	Northern White Cedar	10	Pole	8		Tamarack	15	Pole/Sapling	6		Red Maple	20	Pole/Log/Sap	8		Black Ash	10	Pole/Log/Sap	8		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Tag Alder</td> <td>Low</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	Tag Alder	Low	5 - 10 feet	Tall Shrub
Canopy Species	% Cover	Size Class	DBH	Age																																												
Balsam Fir	5	Pole	6																																													
Black Spruce	40	Pole/Log/Sap	8	95																																												
Northern White Cedar	10	Pole	8																																													
Tamarack	15	Pole/Sapling	6																																													
Red Maple	20	Pole/Log/Sap	8																																													
Black Ash	10	Pole/Log/Sap	8																																													
Sub-Canopy Species	Density	Avg. Height	Size																																													
Tag Alder	Low	5 - 10 feet	Tall Shrub																																													
5	4130 - Aspen	Poletimber Well	23.3	36	81-110	N/A																																										
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>90</td> <td>Pole/Sapling</td> <td>6</td> <td>36</td> </tr> <tr> <td>Red Maple</td> <td>5</td> <td>Pole/Sapling</td> <td>6</td> <td></td> </tr> <tr> <td>Balsam Fir</td> <td>5</td> <td>Pole/Sapling</td> <td>6</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Quaking Aspen	90	Pole/Sapling	6	36	Red Maple	5	Pole/Sapling	6		Balsam Fir	5	Pole/Sapling	6		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Hazelnut (American)</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	Hazelnut (American)	Medium	5 - 10 feet	Tall Shrub															
Canopy Species	% Cover	Size Class	DBH	Age																																												
Quaking Aspen	90	Pole/Sapling	6	36																																												
Red Maple	5	Pole/Sapling	6																																													
Balsam Fir	5	Pole/Sapling	6																																													
Sub-Canopy Species	Density	Avg. Height	Size																																													
Hazelnut (American)	Medium	5 - 10 feet	Tall Shrub																																													
6	4110 - Sugar Maple Association	Sawtimber Well	58.8	100	141-170	N/A																																										
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Sugar Maple</td> <td>60</td> <td>Log/Pole/Sap</td> <td>10</td> <td>100</td> </tr> <tr> <td>Basswood</td> <td>40</td> <td>Log/Pole</td> <td>12</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Sugar Maple	60	Log/Pole/Sap	10	100	Basswood	40	Log/Pole	12		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Ironwood</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	Ironwood	Medium	5 - 10 feet	Sapling																				
Canopy Species	% Cover	Size Class	DBH	Age																																												
Sugar Maple	60	Log/Pole/Sap	10	100																																												
Basswood	40	Log/Pole	12																																													
Sub-Canopy Species	Density	Avg. Height	Size																																													
Ironwood	Medium	5 - 10 feet	Sapling																																													
7	6115 - Lowland Ash	Poletimber Well	2.4	85	81-110	N/A																																										
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>10</td> <td>Log/Pole</td> <td>10</td> <td></td> </tr> <tr> <td>Balsam Fir</td> <td>10</td> <td>Pole</td> <td>8</td> <td></td> </tr> <tr> <td>Black Ash</td> <td>65</td> <td>Pole/Log/Sap</td> <td>8</td> <td>85</td> </tr> <tr> <td>Red Maple</td> <td>10</td> <td>Log/Pole/Sap</td> <td>10</td> <td></td> </tr> <tr> <td>Black Spruce</td> <td>5</td> <td>Pole/Sap/Log</td> <td>8</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Quaking Aspen	10	Log/Pole	10		Balsam Fir	10	Pole	8		Black Ash	65	Pole/Log/Sap	8	85	Red Maple	10	Log/Pole/Sap	10		Black Spruce	5	Pole/Sap/Log	8		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Tag Alder</td> <td>Low</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	Tag Alder	Low	5 - 10 feet	Tall Shrub					
Canopy Species	% Cover	Size Class	DBH	Age																																												
Quaking Aspen	10	Log/Pole	10																																													
Balsam Fir	10	Pole	8																																													
Black Ash	65	Pole/Log/Sap	8	85																																												
Red Maple	10	Log/Pole/Sap	10																																													
Black Spruce	5	Pole/Sap/Log	8																																													
Sub-Canopy Species	Density	Avg. Height	Size																																													
Tag Alder	Low	5 - 10 feet	Tall Shrub																																													





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
8	6120 - Lowland Cedar	Sawtimber Well	19.3	100	81-110	N/A	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	
Balsam Fir		5	Pole/Log/Sap	8		Tag Alder	
Northern White Cedar		75	Log/Pole	10	100	Density	Avg. Height
Black Spruce		10	Pole/Log/Sap	8		Medium	5 - 10 feet
Black Ash		10	Pole/Log/Sap	8			Tall Shrub
9	4110 - Sugar Maple Association	Sawtimber Well	5.7	100	81-110	N/A	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	
Sugar Maple		70	Log/Pole/Sap	10	100	Ironwood	
Basswood		30	Log/Pole	10		Density	Avg. Height
						Medium	5 - 10 feet
							Sapling
10	4130 - Aspen	Poletimber Well	36.3	35	81-110	N/A	sale # 22-83
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	
Quaking Aspen		90	Pole/Sapling	6	35	Hazelnut (American)	
Red Maple		5	Pole/Sapling	6		Density	Avg. Height
Balsam Fir		5	Pole/Sapling	6		Medium	5 - 10 feet
							Tall Shrub
11	4130 - Aspen	Sapling Well	16.9	6	Immature	N/A	Harvested 2015. Sale # 61-13.
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	
Quaking Aspen		100	Sapling	1	6	Hazelnut (American)	
						Density	Avg. Height
						Medium	5 - 10 feet
							Tall Shrub
12	6120 - Lowland Cedar	Sawtimber Well	39.5	100	111-140	N/A	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	
Black Spruce		5	Pole/Log/Sap	8		Tag Alder	
Northern White Cedar		90	Log/Pole	10	100	Density	Avg. Height
Tamarack		5	Pole/Log/Sap	8		Low	5 - 10 feet
							Tall Shrub
13	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	16.8	80	81-110	N/A	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	
Black Spruce		40	Pole/Log/Sap	8	80	Tag Alder	
Northern White Cedar		15	Log/Pole	10		Density	Avg. Height
Tamarack		45	Log/Pole/Sap	10	80	Medium	5 - 10 feet
							Tall Shrub
14	6120 - Lowland Cedar	Sawtimber Well	4.1	100	81-110	N/A	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	
Balsam Fir		5	Pole/Log/Sap	8		Balsam Fir	
Black Spruce		25	Pole/Log/Sap	8		Density	Avg. Height
Northern White Cedar		50	Log/Pole	10	100	Medium	5 - 10 feet
Red Maple		10	Log/Pole/Sap	10			Tall Shrub
Black Ash		10	Pole/Sap/Log	8			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																	
15	320 - Upland Shrub	Nonstocked	2.4	0	Unspecified	No																																		
16	6122 - Black Spruce	Sapling Well	7.0	30	Immature	N/A																																		
		<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Black Spruce</td> <td>70</td> <td>Sapling/Pole</td> <td>4</td> <td>30</td> </tr> <tr> <td>Tamarack</td> <td>30</td> <td>Sapling/Pole</td> <td>4</td> <td></td> </tr> </tbody> </table>	Canopy Species	% Cover	Size Class	DBH	Age	Black Spruce	70	Sapling/Pole	4	30	Tamarack	30	Sapling/Pole	4				<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>Low</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> </tbody> </table>	Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Low	10 - 20 feet	Sapling												
Canopy Species	% Cover	Size Class	DBH	Age																																				
Black Spruce	70	Sapling/Pole	4	30																																				
Tamarack	30	Sapling/Pole	4																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
White Pine	Low	10 - 20 feet	Sapling																																					
17	4130 - Aspen	Sapling Well	7.7	23	Immature	N/A	Poor quality log sized red maple and cedar in SE corner of stand.																																	
		<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>80</td> <td>Sapling/Pole</td> <td>4</td> <td>23</td> </tr> <tr> <td>Balsam Fir</td> <td>5</td> <td>Pole/Sapling</td> <td>6</td> <td></td> </tr> <tr> <td>Northern White Cedar</td> <td>5</td> <td>Log/Pole</td> <td>10</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>10</td> <td>Log/Pole/Sap</td> <td>10</td> <td></td> </tr> </tbody> </table>	Canopy Species	% Cover	Size Class	DBH	Age	Quaking Aspen	80	Sapling/Pole	4	23	Balsam Fir	5	Pole/Sapling	6		Northern White Cedar	5	Log/Pole	10		Red Maple	10	Log/Pole/Sap	10				<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Hazelnut (American)</td> <td>Low</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>	Sub-Canopy Species	Density	Avg. Height	Size	Hazelnut (American)	Low	5 - 10 feet	Tall Shrub		
Canopy Species	% Cover	Size Class	DBH	Age																																				
Quaking Aspen	80	Sapling/Pole	4	23																																				
Balsam Fir	5	Pole/Sapling	6																																					
Northern White Cedar	5	Log/Pole	10																																					
Red Maple	10	Log/Pole/Sap	10																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
Hazelnut (American)	Low	5 - 10 feet	Tall Shrub																																					
18	6120 - Lowland Cedar	Sawtimber Well	44.0	100	81-110	N/A																																		
		<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Black Spruce</td> <td>10</td> <td>Pole/Log/Sap</td> <td>8</td> <td></td> </tr> <tr> <td>Northern White Cedar</td> <td>80</td> <td>Log/Pole</td> <td>10</td> <td>100</td> </tr> <tr> <td>Tamarack</td> <td>10</td> <td>Log/Pole/Sap</td> <td>10</td> <td></td> </tr> </tbody> </table>	Canopy Species	% Cover	Size Class	DBH	Age	Black Spruce	10	Pole/Log/Sap	8		Northern White Cedar	80	Log/Pole	10	100	Tamarack	10	Log/Pole/Sap	10				<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Tag Alder</td> <td>High</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>	Sub-Canopy Species	Density	Avg. Height	Size	Tag Alder	High	5 - 10 feet	Tall Shrub							
Canopy Species	% Cover	Size Class	DBH	Age																																				
Black Spruce	10	Pole/Log/Sap	8																																					
Northern White Cedar	80	Log/Pole	10	100																																				
Tamarack	10	Log/Pole/Sap	10																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
Tag Alder	High	5 - 10 feet	Tall Shrub																																					
19	4110 - Sugar Maple Association	Sawtimber Well	27.9	100	111-140	N/A																																		
		<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Sugar Maple</td> <td>80</td> <td>Log/Pole/Sap</td> <td>10</td> <td>100</td> </tr> <tr> <td>Basswood</td> <td>15</td> <td>Log/Pole</td> <td>12</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>5</td> <td>Log/Pole/Sap</td> <td>10</td> <td></td> </tr> </tbody> </table>	Canopy Species	% Cover	Size Class	DBH	Age	Sugar Maple	80	Log/Pole/Sap	10	100	Basswood	15	Log/Pole	12		Red Maple	5	Log/Pole/Sap	10				<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Spruce</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> </tbody> </table>	Sub-Canopy Species	Density	Avg. Height	Size	White Spruce	Medium	10 - 20 feet	Sapling							
Canopy Species	% Cover	Size Class	DBH	Age																																				
Sugar Maple	80	Log/Pole/Sap	10	100																																				
Basswood	15	Log/Pole	12																																					
Red Maple	5	Log/Pole/Sap	10																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
White Spruce	Medium	10 - 20 feet	Sapling																																					
20	4130 - Aspen	Sapling Well	11.7	26	Immature	N/A	sale # 001-93																																	
		<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>90</td> <td>Sapling/Pole</td> <td>4</td> <td>26</td> </tr> <tr> <td>Balsam Fir</td> <td>5</td> <td>Pole/Sapling</td> <td>5</td> <td></td> </tr> <tr> <td>White Spruce</td> <td>5</td> <td>Pole/Sapling</td> <td>5</td> <td></td> </tr> </tbody> </table>	Canopy Species	% Cover	Size Class	DBH	Age	Quaking Aspen	90	Sapling/Pole	4	26	Balsam Fir	5	Pole/Sapling	5		White Spruce	5	Pole/Sapling	5				<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Hazelnut (American)</td> <td>Low</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>	Sub-Canopy Species	Density	Avg. Height	Size	Hazelnut (American)	Low	5 - 10 feet	Tall Shrub							
Canopy Species	% Cover	Size Class	DBH	Age																																				
Quaking Aspen	90	Sapling/Pole	4	26																																				
Balsam Fir	5	Pole/Sapling	5																																					
White Spruce	5	Pole/Sapling	5																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
Hazelnut (American)	Low	5 - 10 feet	Tall Shrub																																					
21	6229 - Mixed lowland shrub	Nonstocked	10.2		Unspecified	No																																		
22	6229 - Mixed lowland shrub	Nonstocked	6.0		Unspecified	No																																		
				<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Tag Alder</td> <td>Full</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>	Sub-Canopy Species	Density	Avg. Height	Size	Tag Alder	Full	5 - 10 feet	Tall Shrub																												
Sub-Canopy Species	Density	Avg. Height	Size																																					
Tag Alder	Full	5 - 10 feet	Tall Shrub																																					





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
-------	--------------------	--------------	-------	-----------	----------	--------------	------------------

**23** 6120 - Lowland Cedar Sawtimber Medium 149.9 100 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	5	Pole/Log/Sap	8		Tag Alder	High	5 - 10 feet	Tall Shrub
Northern White Cedar	70	Log/Pole	10	100				
Black Spruce	10	Pole/Log/Sap	8					
Black Ash	5	Pole/Log/Sap	8					
Tamarack	10	Log/Pole/Sap	10					

**24** 4191 - Mixed Upland Deciduous with Conifer Sapling Well 17.1 24 Immature N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	30	Sapling	4	24	Hazelnut (American)	Low	5 - 10 feet	Tall Shrub
Balsam Poplar	20	Sapling	4	24				
Balsam Fir	30	Pole/Sapling	6					
White Pine	10	Log/Pole/Sap	16					
Red Maple	10	Sapling/Pole	4					

**25** 6120 - Lowland Cedar Sawtimber Well 18.1 100 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black Spruce	5	Pole/Log/Sap	6		Tag Alder	Medium	5 - 10 feet	Tall Shrub
Northern White Cedar	85	Log/Pole	10	100				
Tamarack	10	Pole/Sap/Log	6					

**26** 4130 - Aspen Sapling Well 112.2 24 Immature N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	85	Sapling/Pole	4	24	Hazelnut (American)	Medium	5 - 10 feet	Tall Shrub
Balsam Fir	5	Pole/Sapling	6					
White Spruce	5	Pole/Sapling	6					
White Pine	5	XLog/Log/Pole	18					

**27** 6121 - Tamarack Poletimber Well 38.4 60 141-170 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	5	Log/Pole	10		Balsam Fir	Low	Variable	Pole
Black Spruce	10	Pole/Sap/Log	6		Tag Alder	Low	5 - 10 feet	Tall Shrub
Tamarack	85	Pole/Log/Sap	6	60				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
-------	--------------------	--------------	-------	-----------	----------	--------------	------------------

**28**      6115 - Lowland Ash      Poletimber Well      1.4      85      81-110      N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	10	Log/Pole	10		Tag Alder	Low	5 - 10 feet	Tall Shrub
Balsam Fir	10	Pole	8					
Black Ash	65	Pole/Log/Sap	8	85				
Red Maple	10	Log/Pole/Sap	10					
Black Spruce	5	Pole/Sap/Log	8					

**29**      6121 - Tamarack      Poletimber Well      1.3      60      141-170      N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	5	Log/Pole	10		Balsam Fir	Low	Variable	Pole
Black Spruce	10	Pole/Sap/Log	6		Tag Alder	Low	5 - 10 feet	Tall Shrub
Tamarack	85	Pole/Log/Sap	6	60				