



**Crystal Falls Forest Management Unit  
Compartment Review Presentation  
Compartment #127    Entry Year: 2013  
Compartment Acreage: 1476 (GIS acres)    County: Iron**

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**Revision Date:** June 20, 2011

**Stand Examiner:** Linda Lindberg

**Legal Description:** T44N, R32W, Sections 1, 2 and 3; T45N, R32W, Sections 34, 35 and 36

**RMU (if applicable):** Text

**Management Goals:** Most of this compartment has been managed. We would like to balance the age classes of aspen and keep managing the hardwood on a 20 year rotation. There is much beaver activity in this compartment.

**Soil and Topography:** This compartment has a mix of nearly level to hilly, somewhat excessively drained to moderate well drained loamy soils on outwash plains. There are some rolling areas on ground moraines and end moraines with rock. Poorly drained Cathro soils are dominant in low areas.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** There is some private ownership of people with camps and some industrial ownership, with some scattered parcels of state land that we have always been able to access with permission from landowners.

**Unique, Natural Features:** The McCutcheon Creek runs through this compartment and there are numerous acreages where state land and this creek cross. Several of those spots now have beaver ponds.

**Archeological, Historical, and Cultural Features:** None at this time.

**Special Management Designations or Considerations:**

**Watershed and Fisheries Considerations:** Text

**Wildlife Habitat Considerations:**

This compartment is located in the core of the Deerfoot Lodge Deeryard. Protecting and enhancing lowland conifer stands is critically important to maintaining the quality of this deeryard. Portions of this yarding complex have been degraded by harvest of both upland and lowland conifer so wildlife dependent on these types, such as wintering deer, rely more heavily on those intact stands on state ownership. Uplands are

largely aspen and have been intensively managed. Restoring the conifer component in the uplands, particularly white pine and hemlock, will enhance species and structural diversity, improving the compartment for a wide variety of wildlife species. This area is comprised of excellent habitat for grouse, woodcock, bear, wolves and a full compliment of furbearers.

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

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and end moraines of coarse-textured glacial till. There is insufficient data to determine the glacial drift thickness. The Precambrian Hemlock Formation, the Randville Dolomite, Archean granite/gneiss and intrusives subcrop below the glacial drift. The Randville is used as a building stone. The other formations do not have a current economic use, although the granite might have building stone potential. The Porter and Warner abandoned iron mines are located six miles to the southwest. Part of this compartment was previously leased for metallic exploration and potential may still exist. The nearest gravel pit is located two miles to the south. There should be gravel potential in the compartment. There is no economic oil and gas production in the UP.

**Vehicle Access:** The Deerfoot Lodge road is the main access into this compartment from the south and the Camp One road off of Highway 95 through Dickinson County is access from the north. Some of the parcels are also accessed off of the Bradley road and this access is weather dependent logging and vehicle traffic.

**Survey Needs:** None needed at this time.

**Recreational Facilities and Opportunities:** Hunting and fishing are always popular in this area.

**Fire Protection:** Most of the compartment is fire accessible and not prone to burn unless there is a drought situation.

**Additional Compartment Information:**

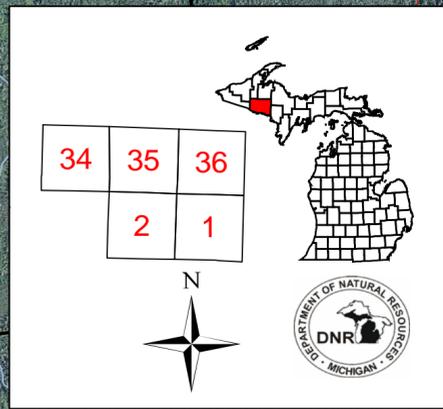
- **The following reports from the Inventory are attached:**
  - ◆ **Total Acres by Cover Type and Age Class**
  - ◆ **Proposed Treatment Summary**

- ◆ **Proposed Treatments – No Limiting Factors**
  - ◆ **Proposed Treatments – With Limiting Factors**
  - ◆ **Stand Details (Forested and Nonforested)**
  - ◆ **Dedicated and Proposed Special Conservation Areas**
- **The following information is displayed, where pertinent, on the attached compartment maps:**
- ◆ **Base feature information, stand boundaries, cover types, and numbers**
  - ◆ **Proposed treatments**
  - ◆ **Details on the road access system**
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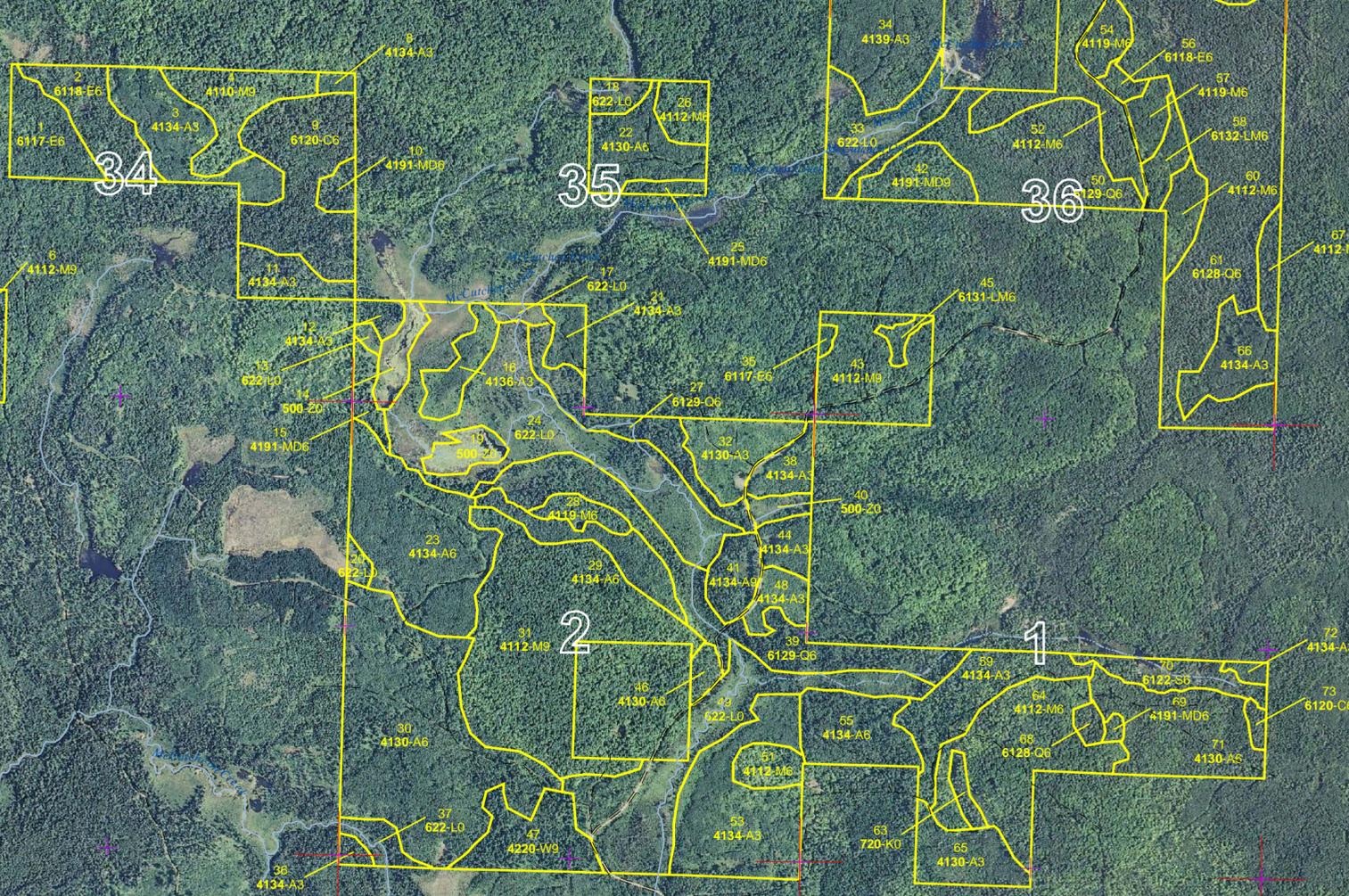


# Stand Boundary Map

Compartment 127  
 T45N, R32W, Sec. 34-36  
 T44N, R32W, Sec. 1, 2  
 County: Iron  
 Unit: Crystal Falls  
 YOY: 2013  
 Acres: 1,499 GIS Calculated  
 Stand Examiner: Linda Lindberg  
 Map Revised: 7/28/2011  
 Map Phase: Pre-Review



**Stand #**  
 23  
**Stocking Density**  
 (4120) - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**



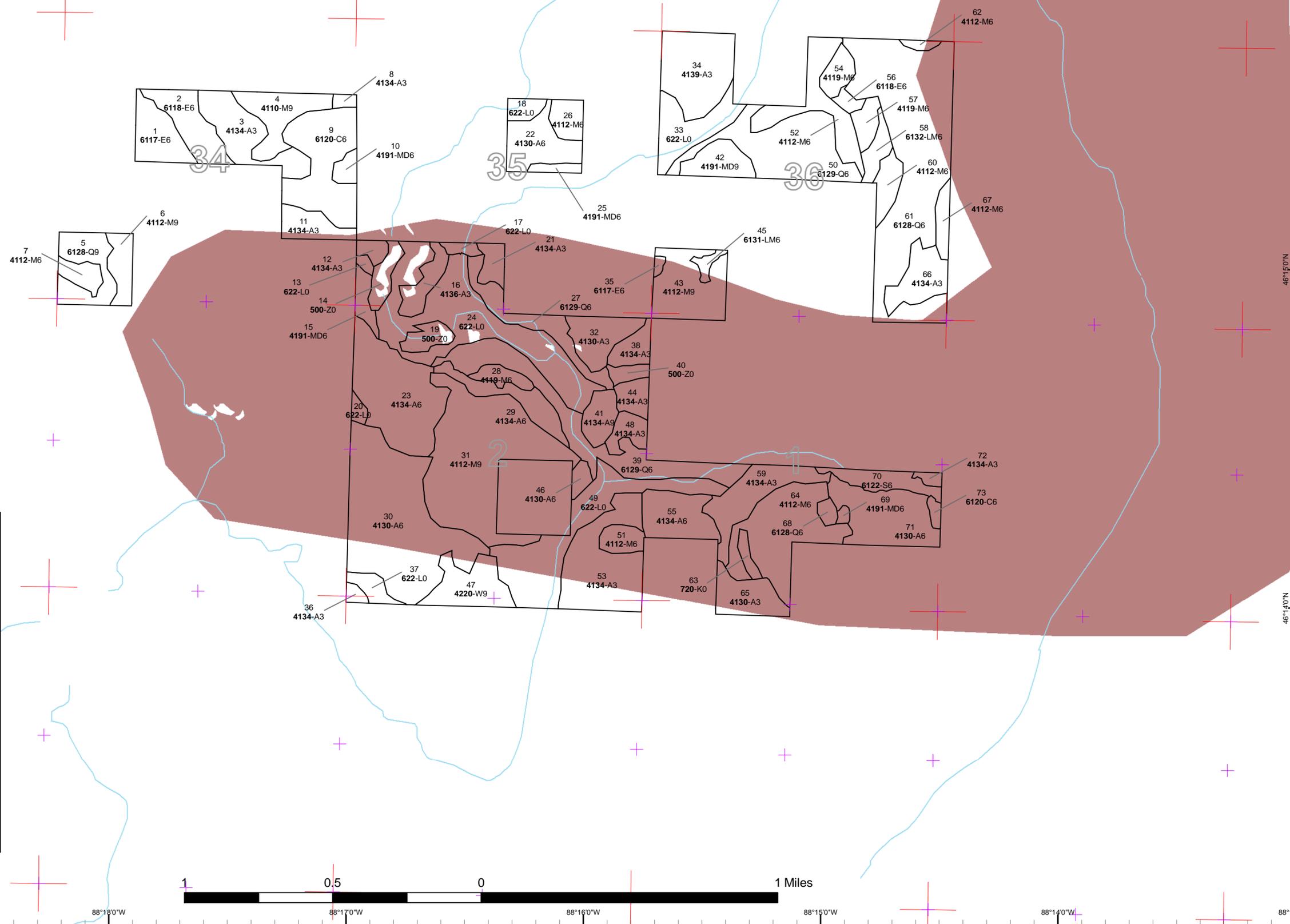
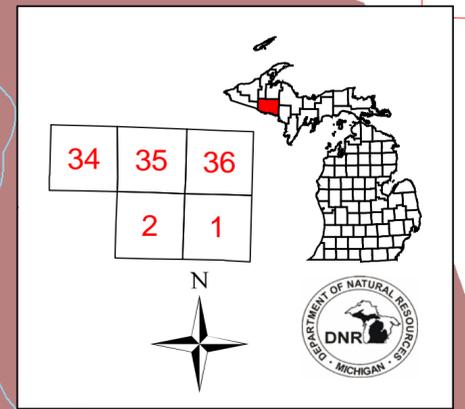
- Legend**
- Miris Corners
  - + Remonumented Section Corners
  - Highway
  - County Paved Roads
  - Paved Roads
  - County Gravel Roads
  - Gravel Roads
  - Poor Dirt Roads
  - County Poor Dirt Roads
  - Trail (Non-Recreation)
  - Closed Roads
  - Snowmobile Trail
  - Intermittent Stream/Drain
  - Stream
  - Stand Boundaries
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 422 - Natural Pines
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
  - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3**
- 500 - Water
  - 622 - Lowland Shrub
  - 720 - Exposed Rock



# Dedicated & Proposed Special Conservation Area Map

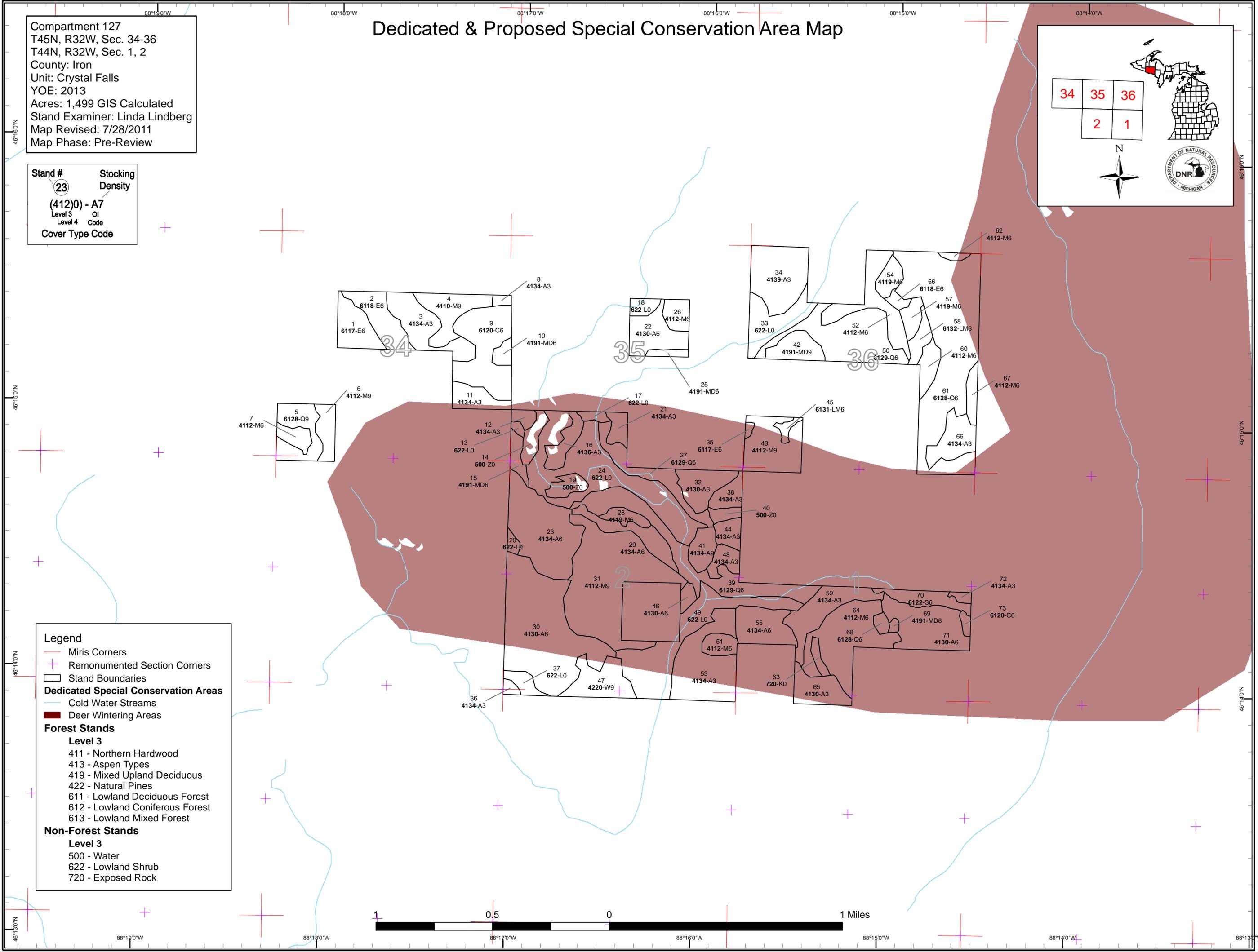
Compartment 127  
 T45N, R32W, Sec. 34-36  
 T44N, R32W, Sec. 1, 2  
 County: Iron  
 Unit: Crystal Falls  
 YOE: 2013  
 Acres: 1,499 GIS Calculated  
 Stand Examiner: Linda Lindberg  
 Map Revised: 7/28/2011  
 Map Phase: Pre-Review

**Stand #**      **Stocking Density**  
 (23)              OI  
 (4120) - A7  
 Level 3      Code  
 Level 4      Code  
**Cover Type Code**



**Legend**

- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- Dedicated Special Conservation Areas**
- Cold Water Streams
- Deer Wintering Areas
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
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**Table 1 – Total Acres by Cover Type and Age Class**



	Age Class														Total	
	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Unretn Age
Aspen	0	27	153	236	58	55	0	0	0	15	0	0	0	0	0	545
Cedar	0	0	0	0	0	0	0	0	0	2	0	46	0	0	0	48
Exposed Rock	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Lowland Conifers	0	0	0	0	0	0	0	51	175	21	3	21	0	0	0	272
Lowland Deciduous	0	0	0	0	20	0	0	0	0	5	22	0	0	0	0	46
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11
Lowland Shrub	178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	178
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	14
Mixed Upland Deciduous	0	0	0	0	0	1	0	0	0	30	0	0	0	0	0	31
Northern Hardwood	0	0	0	0	0	0	0	0	0	288	0	0	0	0	19	307
Water	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	24
<b>Total</b>	<b>203</b>	<b>27</b>	<b>153</b>	<b>236</b>	<b>77</b>	<b>57</b>	<b>0</b>	<b>51</b>	<b>175</b>	<b>386</b>	<b>25</b>	<b>66</b>	<b>0</b>	<b>0</b>	<b>42</b>	<b>1499</b>



## Table 2 – Proposed Treatment Summaries

**Crystal Falls Mgt. Unit**  
**Year of Entry 2013**

**Compartment 127**  
**Total Compartment Acres: 1499**

### Acres by Treatment Type

Commercial Harvest - 41	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

### Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
<b>Aspen</b>	15	0	0	0	0	0	15
<b>Northern Hardwood</b>	0	0	0	0	26	0	26
<b>Total</b>	15	0	0	0	26	0	41

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
41 12127041-Cut	11.3	4134 - Aspen, Spruce/Fir	High Density Log	89	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription: Cut all trees > than 2 inches except cherry, oak, hemlock, cedar, elm and red and white pine. Cut all spruce and balsam > than 6 inches in diameter at a 4 inch stump.

Other Comments: Retention will be the wetland with buffer and buffer along the creek.

Next Steps: Regeneration survey to follow at appropriate intervals

46 12127046-Cut	4.0	4130 - Aspen	High Density Pole	85	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal
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Prescription: Cut all trees > than 2 inches in diameter except oak, elm, cherry, hemlock, cedar and red and white pine. Cut all spruce and balsam that is greater than 6 inches in diameter at a 4 inch stump.

Other Comments:

Next Steps: Regeneration survey to follow at appropriate interval.

54 12127054-Cut	8.5	4119 - Mixed Northern Hardwoods	High Density Pole	85	Harvest	Low Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription: Mark this stand to 80-90 BA. Retain species diversity and thin areas that were left high from the last cutting.

Other Comments: There will be buffers along the lowland to preserve transition zones.

Next Steps: Because of sedge, we will not do a regeneration cut at this time.

57 12127057-Cut	7.5	4119 - Mixed Northern Hardwoods	High Density Pole	85	Harvest	Low Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription: Mark to 80-90 BA by taking trees where the BA was left high last time. Keep the best tree in place to retain species diversity. Leave older, larger trees for legacy trees where appropriate.

Other Comments:

Next Steps: Regeneration sale is not done at this time to deter sedge which is a problem in other areas in this compartment

60 12127060-Cut	9.6	4112 - Maple, Beech, Cherry Association	High Density Pole	85	Harvest	Low Thinning	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
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Prescription: Mark to 80-90 BA leaving best tree in place for species diversity.

Specs: Thin areas that were left high in the last cut.

Other Comments:

Next Steps: No regeneration cut is being done at this time to deter sedge which is a problem in this compartment.

**Total Treatment  
Acreage Proposed: 41.0**

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Limiting Factor and No  
Treatment Reason

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**Total Treatment**  
**Acreage Proposed: 0**

**Out of YOE -- Treatments  
Prescribed with No Limiting Factor**

Year of Entry: 2013



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12060_OutOfYOE-Cut	6.0				Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription: Clearcut 2" dbh and above except cedar, hemlock and pine if present.

Specs:

Other

Comments:

Next

Steps:

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**Total Treatment  
Acreage Proposed: 6.0**



Stand	Crystal Falls Mgt. Unit			5 – Forested Stands		Compartment: 127 Year of Entry: 2013	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
1	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	19.6	34		The cedar and hemlock were left last time and it is very diverse and seems to be growing good.	
2	6118 - Lowland Deciduous with Cedar	High Density Pole	21.6	91	1-50		
3	4134 - Aspen, Spruce/Fir	High Density Sapling	28.6	15			
4	4110 - Sugar Maple Association	High Density Log	22.6	85	51-80	This stand is on a steep incline and you must access through Forest Land Group	
5	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	20.7	109			
6	4112 - Maple, Beech, Cherry Association	High Density Log	11.3	Uneven Age	51-80		
7	4112 - Maple, Beech, Cherry Association	High Density Pole	7.5	Uneven Age	1-50		
8	4134 - Aspen, Spruce/Fir	High Density Sapling	2.3	15			
9	6120 - Lowland Cedar	High Density Pole	45.8	109			
10	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	4.8	85	51-80		
11	4134 - Aspen, Spruce/Fir	High Density Sapling	12.9	26			
12	4134 - Aspen, Spruce/Fir	High Density Sapling	4.4	18			
15	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	6.7	85			
16	4136 - Aspen, Mixed Conifer	High Density Sapling	11.4	15			
21	4134 - Aspen, Spruce/Fir	High Density Sapling	7.1	18		This does have some swampage cut with the stand and most of the swamp edge regenerated to tamarack which isn't entirely what it was but at least there is some regen there.	
22	4130 - Aspen	High Density Pole	22.5	25			
23	4134 - Aspen, Spruce/Fir	High Density Pole	57.6	34			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	3.5	85	51-80	
26	4112 - Maple, Beech, Cherry Association	High Density Pole	9.1	85	81-110	
27	6129 - Mixed Coniferous Lowland Forest	High Density Pole	21.3	86		
28	4119 - Mixed Northern Hardwoods	High Density Pole	6.5	85		
29	4134 - Aspen, Spruce/Fir	High Density Pole	17.2	40	81-110	Aspen being weeded out-lots of dead and down and some wet frog areas
30	4130 - Aspen	High Density Pole	101.4	27		
31	4112 - Maple, Beech, Cherry Association	High Density Log	95.0	85	81-110	
32	4130 - Aspen	High Density Sapling	18.7	6		
34	4139 - Aspen, Mixed Deciduous	High Density Sapling	38.9	28		
35	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	1.3	85	51-80	
36	4134 - Aspen, Spruce/Fir	High Density Sapling	2.5	18		
38	4134 - Aspen, Spruce/Fir	High Density Sapling	9.3	27		
39	6129 - Mixed Coniferous Lowland Forest	High Density Pole	51.4	69	51-80	
41	4134 - Aspen, Spruce/Fir	High Density Log	11.3	89		
42	4191 - Mixed Upland Deciduous with Conifer	High Density Log	14.7	85		
43	4112 - Maple, Beech, Cherry Association	High Density Log	33.4	85	81-110	
44	4134 - Aspen, Spruce/Fir	High Density Sapling	8.1	27		
45	6131 - Hemlock, White Pine, Maple, Birch	High Density Pole	3.2	85	51-80	

## Crystal Falls Mgt. Unit

## 5 – Forested Stands

Compartment: 127  
Year of Entry: 2013

S t a n d	Crystal Falls Mgt. Unit			5 – Forested Stands		Compartment: 127 Year of Entry: 2013
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
46	4130 - Aspen	High Density Pole	4.0	85	1-50	
47	42200 - Natural White Pine	High Density Log	23.6	Uneven Age		
48	4134 - Aspen, Spruce/Fir	High Density Sapling	8.5	6		
50	6129 - Mixed Coniferous Lowland Forest	High Density Pole	51.1	79	81-110	
51	4112 - Maple, Beech, Cherry Association	High Density Pole	8.3	85	51-80	
52	4112 - Maple, Beech, Cherry Association	High Density Pole	27.7	85		
53	4134 - Aspen, Spruce/Fir	High Density Sapling	49.0	18		
54	4119 - Mixed Northern Hardwoods	High Density Pole	8.5	85		
55	4134 - Aspen, Spruce/Fir	High Density Pole	23.5	29	1-50	
56	6118 - Lowland Deciduous with Cedar	High Density Pole	3.2	85		
57	4119 - Mixed Northern Hardwoods	High Density Pole	7.5	85	111-140	
58	6132 - Mixed Lowland Forest with Cedar	High Density Pole	8.0	85		
59	4134 - Aspen, Spruce/Fir	High Density Sapling	27.4	18		
60	4112 - Maple, Beech, Cherry Association	High Density Pole	9.6	85	111-140	
61	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	124.0	79	81-110	
62	4112 - Maple, Beech, Cherry Association	High Density Pole	2.3	85	81-110	
64	4112 - Maple, Beech, Cherry Association	High Density Pole	50.7	85	81-110	Nice view from this stand
65	4130 - Aspen	High Density Sapling	18.4	14		

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## Crystal Falls Mgt. Unit

## 5 – Forested Stands

Compartment: 127  
Year of Entry: 2013

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
66	4134 - Aspen, Spruce/Fir	High Density Sapling	18.9	24		
67	4112 - Maple, Beech, Cherry Association	High Density Pole	6.7	85		
68	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	3.1	91	81-110	
69	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	1.5	47	51-80	
70	6122 - Black Spruce	High Density Pole	13.5	81		
71	4130 - Aspen	High Density Pole	38.3	47		
72	4134 - Aspen, Spruce/Fir	High Density Sapling	2.3	15		
73	6120 - Lowland Cedar	High Density Pole	2.4	89		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
13	6220 - Alder/willow	1.7	No	Unspecified	
14	50 - Water	8.6	No	Unspecified	
17	6220 - Alder/willow	3.2	No	Unspecified	
18	6220 - Alder/willow	5.4	No	Unspecified	
19	50 - Water	8.0	No	Unspecified	
20	6220 - Alder/willow	2.7	No	Unspecified	
24	622 - Lowland Shrub	79.3	N/A	Unspecified	
33	6220 - Alder/willow	24.0	No	Unspecified	
37	6220 - Alder/willow	6.6	No	Unspecified	
40	50 - Water	4.6	No	Unspecified	
49	6220 - Alder/willow	55.3	No	Unspecified	
63	720 - Exposed Rock	3.8	No	Unspecified	This is about 200 feet tall, has a few trees on it and you wouldn't want to fall off of it!



**7 – 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.

Stand	SCA Type	SCA Name	Acres	Comments



**8 – DEDICATED CONSERVATION AREA DETAILS**

\* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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.