



**Crystal Falls Forest Management Unit  
Compartment Review Presentation  
Compartment #140 Entry Year: 2013  
Compartment Acreage: 1079 County: Iron**

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**Revision Date:** 6/2/11

**Stand Examiner:** Scott Sebero

**Legal Description:** T43N, R33W, Sec. 6, 7, 8

**RMU (if applicable):**

**Management 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:** Land is nearly level to hilly with a mix of Sarona soils that are excessively drained to well-drained, loamy and sandy soils on ground moraines and end moraines and Cathro soils that are irregular depressions within these moraines that are poorly drained black muck.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Ownership patterns in this compartment consist mostly of State lands with private parcels and some hunting camps. Lands in and around this compartment are used mainly for hunting and managed for forest products.

**Unique, Natural Features:** Chicagon Creek runs through the center of the compartment. The Paint River touches the NE corner and Olson Creek bumps the compartment along the west side.

**Archeological, Historical, and Cultural Features:** None.

**Special Management Designations or Considerations:** None.

**Watershed and Fisheries Considerations:**

**Wildlife Habitat Considerations:** Much of this compartment is located in the Hemlock Rapids Deeryard. Lowland conifer stand's quality and quantity need to be maintained to support the deer that rely on this area for winter cover. The conifer component, especially white pine and hemlock, should be enhanced in the upland and transition zones to increase species and structural diversity and enable deer to access the food

resources in the uplands. This area supports a diverse array of wildlife species, including threatened endangered species, such as eagles and wolves.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of medium-textured glacial till and glacial outwash sand and gravel and postglacial alluvium. There is insufficient data to determine the glacial drift thickness. The Precambrian Michigamee Formation and the Badwater Greenstone subcrop below the glacial drift. There is not a current economic use for these rocks. The Porter iron mine is located four miles to the northeast. This compartment has previously been leased for metallic exploration and potential may still exist. The nearest gravel pit is located two miles to the northwest. There should be gravel potential in the compartment. There is no economic oil and gas production in the UP.

**Vehicle Access:** Access into this compartment is from Paulson Road, through private property for the north half of the western block. Access to the south half of the western block is from the Iron County Recreational Trail, through private property. The eastern block of this compartment is accessed from Long Lake Road, through private property.

**Survey Needs:** None.

**Recreational Facilities and Opportunities:**

**Fire Protection:**

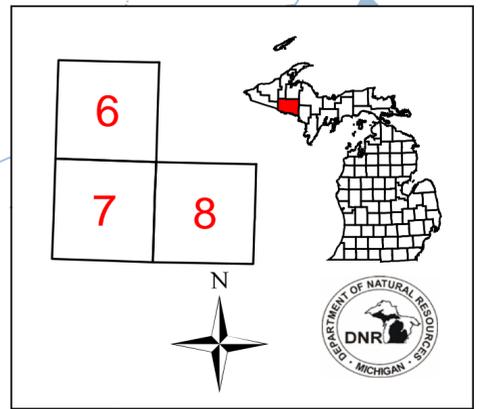
**Additional Compartment Information:** None.

- **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**
-

# Cover Type & Treatment Map

Compartment 140  
 T43N, R33W, Sec. 6-8  
 County: Iron  
 Unit: Crystal Falls  
 YOY: 2013  
 Acres: 1,079 GIS Calculated  
 Stand Examiner: Scott Sebero  
 Map Revised: 7/28/2011  
 Map Phase: Pre-Review

**Stand #**      **Stocking Density**  
 (23)              (4120) - A7  
 Level 3          OL  
 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
- Motorcycle (DNR Sticker)
- Motorcycle (SOS License)
- ORV Trail
- ORV Route
- Snowmobile Trail
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

**Treatments**

- Clearcut (w/Reserves, Patch/Strip)
- ▨ Thinning (Crown, Low, Systematic)
- ▩ Selection (Group, Single Tree)

**Forest Stands**

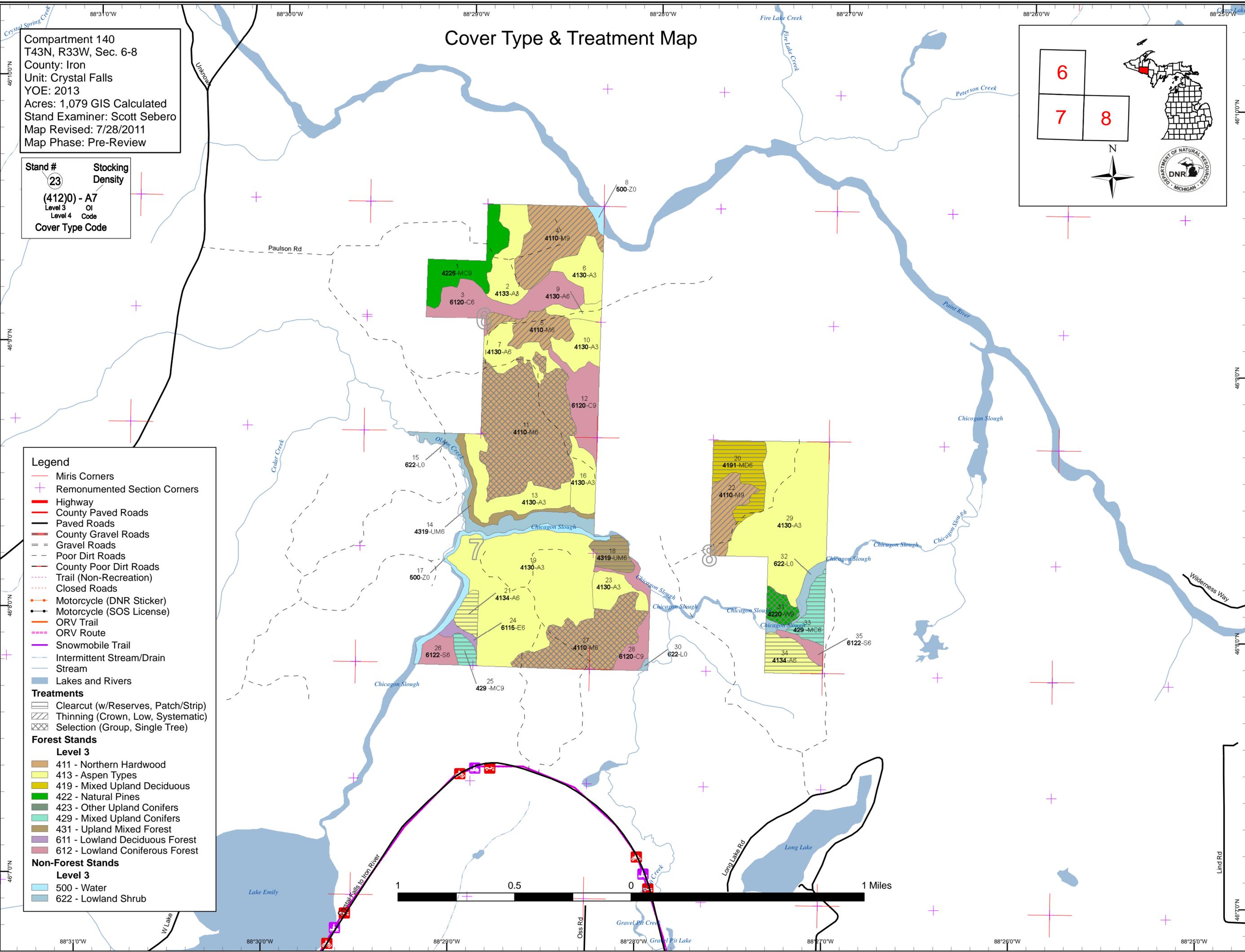
**Level 3**

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

**Non-Forest Stands**

**Level 3**

- 500 - Water
- 622 - Lowland Shrub

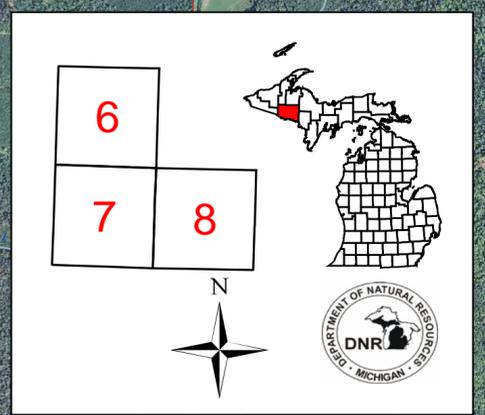


Map coordinates: 88°31'0"W to 88°25'0"W and 46°10'0"N to 46°7'0"N.

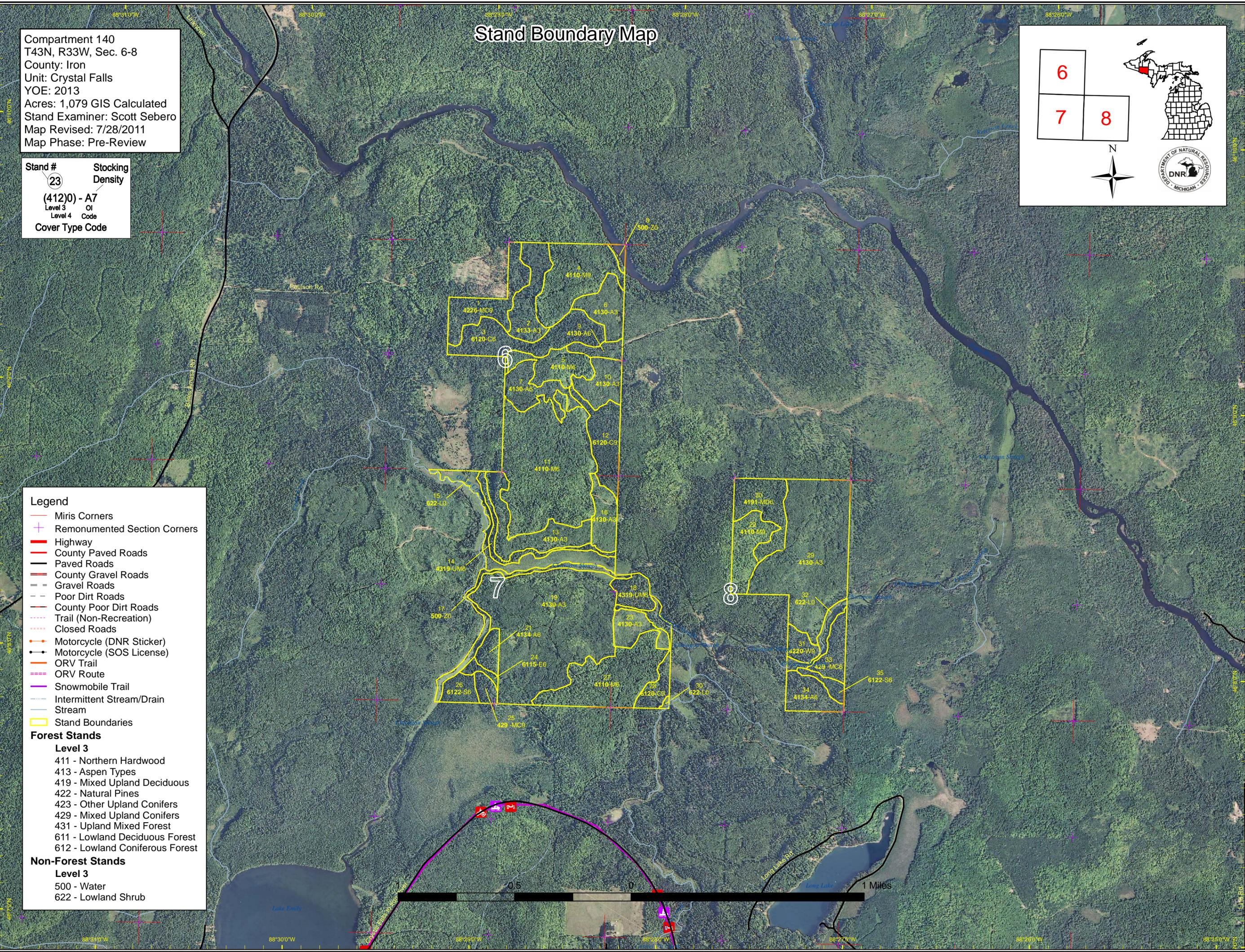
# Stand Boundary Map

Compartment 140  
 T43N, R33W, Sec. 6-8  
 County: Iron  
 Unit: Crystal Falls  
 YOE: 2013  
 Acres: 1,079 GIS Calculated  
 Stand Examiner: Scott Sebero  
 Map Revised: 7/28/2011  
 Map Phase: Pre-Review

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



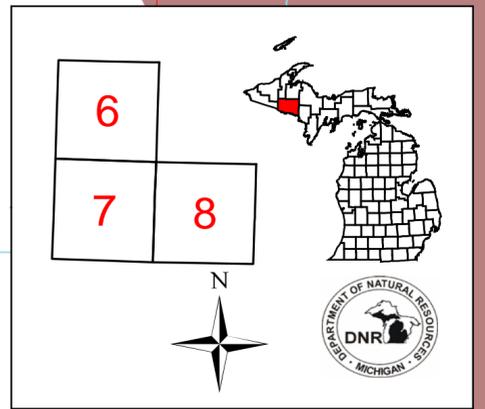
- Legend**
- Miris Corners
  - + Remonumented Section Corners
  - Highway
  - County Paved Roads
  - Paved Roads
  - County Gravel Roads
  - Gravel Roads
  - Poor Dirt Roads
  - County Poor Dirt Roads
  - Trail (Non-Recreation)
  - Closed Roads
  - Motorcycle (DNR Sticker)
  - Motorcycle (SOS License)
  - ORV Trail
  - ORV Route
  - 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
  - 423 - Other Upland Conifers
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- Non-Forest Stands**
- Level 3**
- 500 - Water
  - 622 - Lowland Shrub



# Dedicated & Proposed Special Conservation Area Map

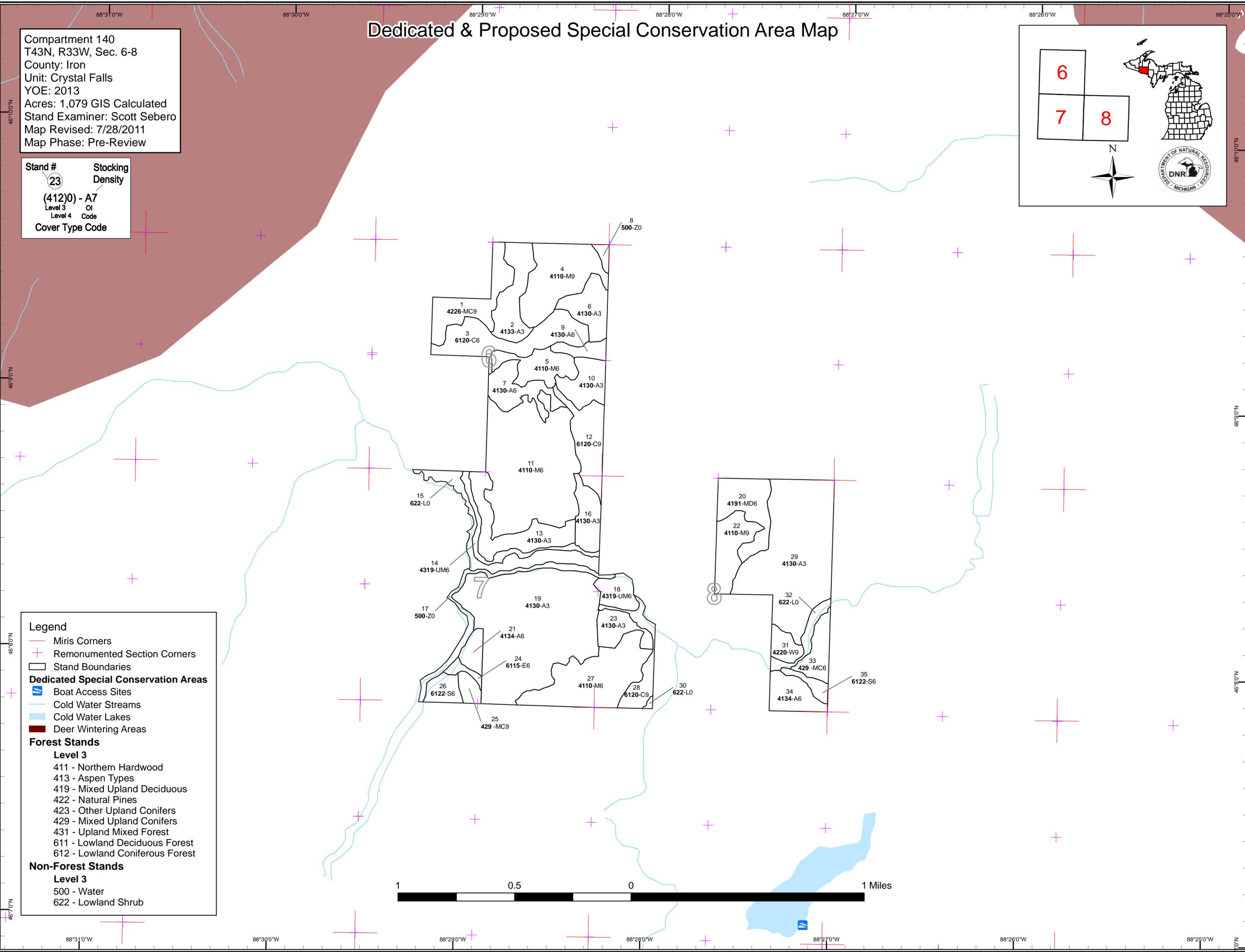
Compartment 140  
 T43N, R33W, Sec. 6-8  
 County: Iron  
 Unit: Crystal Falls  
 YOE: 2013  
 Acres: 1,079 GIS Calculated  
 Stand Examiner: Scott Sebero  
 Map Revised: 7/28/2011  
 Map Phase: Pre-Review

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



**Legend**

- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- Dedicated Special Conservation Areas**
- ⚓ Boat Access Sites
- Cold Water Streams
- Cold Water Lakes
- Deer Wintering Areas
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- Level 3**
- 500 - Water
- 622 - Lowland Shrub



**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 +		Uneten Age
Aspen	0	35	200	194	32	0	0	0	0	29	0	0	0	0	0	490
Cedar	0	0	0	0	0	0	0	0	0	94	0	0	0	0	0	94
Lowland Deciduous	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Lowland Shrub	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	17
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	32	0	0	0	0	0	32
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	32	0	0	0	0	0	32
Northern Hardwood	0	0	0	0	0	0	0	0	0	290	0	0	0	0	0	290
Upland Conifers	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	23
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	26
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	10	0	0	0	0	0	10
<b>Total</b>	<b>60</b>	<b>35</b>	<b>200</b>	<b>194</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>557</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1079</b>



## Table 2 – Proposed Treatment Summaries

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

**Compartment 140**  
**Total Compartment Acres: 1079**

### Acres by Treatment Type

Commercial Harvest - 397	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

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
<b>Aspen</b>	29	0	0	0	0	0	0	29
<b>Mixed Upland Deciduous</b>	32	0	0	0	0	0	0	32
<b>Northern Hardwood</b>	0	190	0	0	100	0	0	290
<b>Upland Conifers</b>	23	0	0	0	0	0	0	23
<b>Upland Mixed Forest</b>	14	0	0	0	0	0	0	14
<b>White Pine</b>	0	10	0	0	0	0	0	10
<b>Total</b>	<b>97</b>	<b>199</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>397</b>



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	12140004-Cut	51.2	4110 - Sugar Maple Association	High Density Log	89	Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Reduce BA to 80. Leave all cedar, hemlock and oak.									
<u>Specs:</u>									
<u>Other</u> 100 foot buffer on Paint River. Retention will be in uncut trees.									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
5	12140005-Cut	23.7	4110 - Sugar Maple Association	High Density Pole	89	Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Reduce BA to 80. Leave all cedar, hemlock and oak.									
<u>Specs:</u>									
<u>Other</u> Retention will be in uncut trees.									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
11	12140011-Cut	127.2	4110 - Sugar Maple Association	High Density Pole	89	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Cut all aspen, spruce and balsam with a stump diameter of six inches or greater. Reduce BA to 80. Clean out regen gaps when large canopy trees are removed. Leave all cedar, hemlock and oak.									
<u>Specs:</u>									
<u>Other</u> Retention will be in uncut trees.									
<u>Comments:</u>									
<u>Next</u> Regen survey per work constructions.									
<u>Steps:</u>									
18	12140018-Cut	13.7	4319 - Mixed Upland Forest	High Density Pole	89	Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal
<u>Prescription</u> Cut all aspen and mixed hardwood 2" or greater. Cut all spruce and balsam with a stump diameter of six inches or more. Thin red pine clump at north end of sale to 50 BA to promote regen. Leave all white pine, cedar, hemlock and oak. Retention will be along the lowland at the south.									
<u>Specs:</u>									
<u>Other</u> 100 foot buffer along creek.									
<u>Comments:</u>									
<u>Next</u> Regen survey per work constructions.									
<u>Steps:</u>									
20	12140020-Cut	31.7	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	89	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<u>Prescription</u> Cut all aspen and mixed hardwood 2" or greater. Cut all spruce and balsam with a stump diameter of six inches or more. Thin clump white pine at north end of stand to 50 BA to promote regen. Leave all red pine, cedar, hemlock and oak. Retention will be in the tree species not cut.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u> Regen survey per work constructions.									
<u>Steps:</u>									
22	12140022-Cut	25.6	4110 - Sugar Maple Association	High Density Log	89	Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Reduce BA to 80. Leave all cedar, hemlock and oak.									
<u>Specs:</u>									
<u>Other</u> Retention in uncut trees.									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
27	12140027-Cut	62.5	4110 - Sugar Maple Association	High Density Pole	89	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription:</u> Cut all aspen and mixed hardwood 2" or greater. Cut all spruce and balsam with a stump diameter of six inches or more. Reduce BA to 80. <u>Specs:</u> Clean out regen gaps when they are formed after large canopy trees are removed. Leave all cedar, hemlock and oak. <u>Other</u> Retention in uncut trees. <u>Comments:</u> <u>Next</u> Regen survey per work constructions. <u>Steps:</u>									
31	12140031-Cut	9.8	42200 - Natural White Pine	High Density Log	89	Harvest	Single Tree Selection	42200 - Natural White Pine	Cmpt. Review Proposal
<u>Prescription:</u> Cut all aspen and mixed hardwood 2" DBH or greater. Cut all spruce and balsam with a stump diameter of six inches or more. Reduce white pin <u>Specs:</u> BA to 50 to promote regen. Leave all red pine, cedar, hemlock and oak. Retention will be along lowland to the south. <u>Other</u> 100 foot buffer along creek. <u>Comments:</u> <u>Next</u> Regen survey per work constructions. <u>Steps:</u>									
33	12140033-Cut	16.5	429 - Mixed Upland Conifers	High Density Pole	89	Harvest	Clearcut with Reserves	429 - Mixed Upland Conifers	Cmpt. Review Proposal
<u>Prescription:</u> Cut all aspen and mixed hardwood 2" DBH or greater. Cut all spruce and balsam with a stump diameter of six inches or more. Leave all red pine, <u>Specs:</u> white pine, cedar, hemlock and oak. Retention will be along Q-type to the south. <u>Other</u> 100 foot buffer along creek. <u>Comments:</u> <u>Next</u> Regen survey per work constructions. <u>Steps:</u>									
34	12140034-Cut	19.6	4134 - Aspen, Spruce/Fir	High Density Pole	89	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
<u>Prescription:</u> Cut all aspen and mixed hardwood 2" DBH or greater. Cut all spruce and balsam with a stump diameter of six inches or more. Leave all red <u>Specs:</u> pine, white pine, cedar, hemlock and oak. Retention will be along the Q-type to the north. <u>Other</u> 100 foot buffer along creek. <u>Comments:</u> <u>Next</u> Regen survey per work constructions. <u>Steps:</u>									

**Total Treatment  
Acreage Proposed: 381.4**

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	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
21	12140021-Cut	9.1	4134 - Aspen, Spruce/Fir	High Density Pole	89	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Cut all aspen and mixed hardwood 2" or greater. Cut all spruce and balsam with a stump diameter of six inch or more. Leave all red pine, white pine, cedar, hemlock and oak. Retention will be along steep hill on the west and lowland on the south.

Other 100 foot buffer along creek.

Comment:

Next Regen survey per work constructions.

Steps:

Limiting Factor and No 3B: T & E or special concern (name)  
Treatment Reason

25	12140025-Cut	6.7	429 - Mixed Upland Conifers	High Density Log	89	Harvest	Clearcut with Reserves	429 - Mixed Upland Conifers	Cmpt. Review Proposal
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Prescription Cut all aspen and mixed hardwood 2" or greater. Cut all spruce and balsam with a stump diameter of six inches or more. Thin clumps of red pine to a BA of 50 to promote regen. Leave all white pine, cedar, hemlock and oak. Retention will be along the Q-type on the west side.

Other

Comment:

Next Regen survey per work constructions.

Steps:

Limiting Factor and No 3B: T & E or special concern (name)  
Treatment Reason

**Total Treatment  
Acreage Proposed: 15.8**

**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**

## Crystal Falls Mgt. Unit

## 5 – Forested Stands

Compartment: 140  
Year of Entry: 2013

Stand	Crystal Falls Mgt. Unit			5 – Forested Stands		General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	
1	42260 - Natural Pine, Mixed Deciduous	High Density Log	32.5	89	81-110	
2	4133 - Aspen, Mixed Pine	High Density Sapling	29.8	20	1-50	
3	6120 - Lowland Cedar	High Density Pole	46.5	89	111-140	
4	4110 - Sugar Maple Association	High Density Log	51.2	89	141-170	
5	4110 - Sugar Maple Association	High Density Pole	23.7	89	111-140	
6	4130 - Aspen	High Density Sapling	22.6	16		
7	4130 - Aspen	High Density Pole	23.6	37	81-110	
9	4130 - Aspen	High Density Pole	8.6	37	81-110	
10	4130 - Aspen	High Density Sapling	20.6	16		
11	4110 - Sugar Maple Association	High Density Pole	127.2	89	141-170	
12	6120 - Lowland Cedar	High Density Log	29.5	89	141-170	
13	4130 - Aspen	High Density Sapling	35.8	16		
14	4319 - Mixed Upland Forest	High Density Pole	12.7	89	81-110	
16	4130 - Aspen	High Density Sapling	18.6	7		
18	4319 - Mixed Upland Forest	High Density Pole	13.7	89	81-110	
19	4130 - Aspen	High Density Sapling	164.2	21		
20	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	31.7	89	81-110	
21	4134 - Aspen, Spruce/Fir	High Density Pole	9.1	89	81-110	

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## Crystal Falls Mgt. Unit

## 5 – Forested Stands

Compartment: 140  
Year of Entry: 2013

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4110 - Sugar Maple Association	High Density Log	25.6	89	111-140	
23	4130 - Aspen	High Density Sapling	16.0	6		
24	6115 - Lowland Ash	High Density Pole	4.0	89	81-110	
25	429 - Mixed Upland Conifers	High Density Log	6.7	89	171-200	
26	6122 - Black Spruce	High Density Pole	10.8	89	81-110	
27	4110 - Sugar Maple Association	High Density Pole	62.5	89	141-170	
28	6120 - Lowland Cedar	High Density Log	17.8	89	111-140	
29	4130 - Aspen	High Density Sapling	121.4	14		
31	42200 - Natural White Pine	High Density Log	9.8	89	111-140	
33	429 - Mixed Upland Conifers	High Density Pole	16.5	89	81-110	
34	4134 - Aspen, Spruce/Fir	High Density Pole	19.6	89	81-110	
35	6122 - Black Spruce	High Density Pole	6.3	89	81-110	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
8	50 - Water	3.2	No	Unspecified	
15	6229 - Mixed lowland shrub	29.1	No	Unspecified	
17	50 - Water	17.7	No	Unspecified	
30	6229 - Mixed lowland shrub	0.8	No	Unspecified	
32	6229 - Mixed lowland shrub	9.5	No	Unspecified	



**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.