



**Crystal Falls Forest Management Unit
Compartment Review Presentation
Compartment #148 Entry Year: 2012
Compartment Acreage: 1187 County: Iron**

Revision Date: July 19, 2010

Stand Examiner: Scott Sebero

Legal Description: T43N, R32W, Sections 2 and 11 T44N, R32W, Sections 35 and 36.

Identified Planning Goals ('Management Area' or 'RMU', if applicable):

Management Goals: Our management goals in this compartment are to develop age class distribution in the aspen type, maintain health of conifer types and increase the 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 Saronia 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: This compartment is just east of The Finn Lady Swamp.

Archeological, Historical, and Cultural Features: None.

Special Management Designations or Considerations: None.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations: Compartment 148 is located south of the Michigamme Reservoir. In the future, it would be desirable to more evenly distribute the harvest of aspen. Transition zones and travel corridors should remain intact and drainages and wetlands buffered to prevent damage and dessication.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium in places thin to discontinuous over bedrock. There is insufficient data to determine the glacial drift thickness. The Precambrian Hemlock Formation and Intrusive subcrop below the glacial drift. The abandoned Crystal Falls iron mines are located six miles to the

southwest and the abandoned Porter and Warner mines are located seven miles to the northwest. This compartment was previously leased for metallic exploration and part of Section 36 is currently leased. The nearest gravel pit is located four miles to the southwest, but potential appears to be limited. There is no economic oil and gas production in the UP.

Vehicle Access: Vehicle access is from the west off Rock Crusher Road and from the east off the Kelso Road.

Survey Needs: A survey has just been completed and should be all that is needed for proposed treatments this entry period.

Recreational Facilities and Opportunities: Snowmobile Trail 111 passes through the middle of this compartment. A reroute of this trail has been proposed and is planned to go in to bypass private property. The reroute will be constructed in conjunction with a proposed timber sale, if possible. This area is used heavily by both deer and grouse hunters.

Fire Protection: None.

Additional Compartment Information: None.

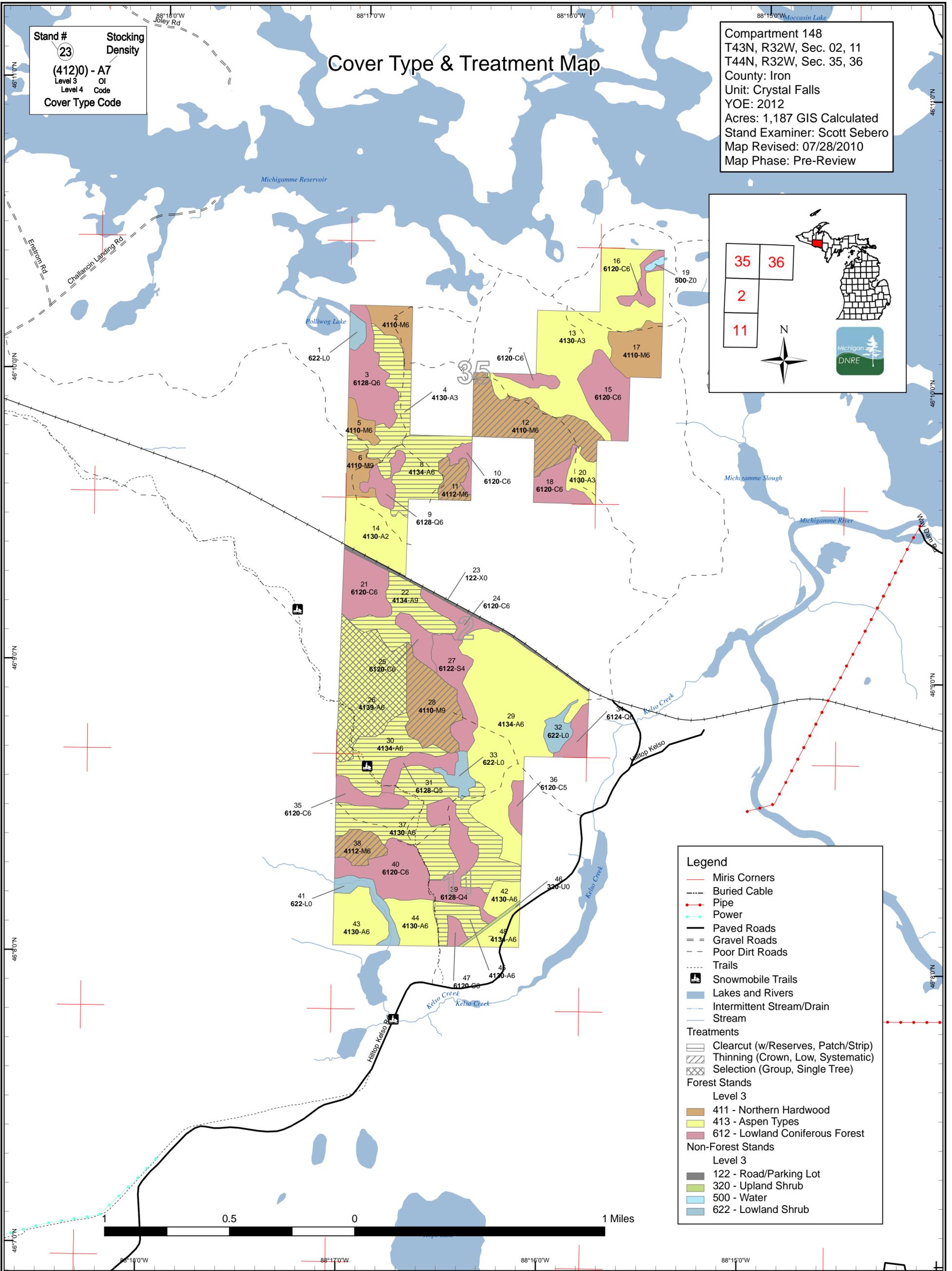
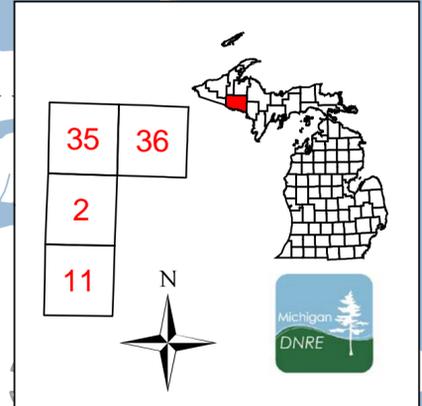
- **The following reports from the Inventory are attached:**
 - ◆ **Total Acres by Cover Type and Age Class**
 - ◆ **Proposed Treatment Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**
 - ◆ **Stand Details (Forested and Nonforested)**
 - ◆ **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

Stand #
23
(412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

Compartment 148
 T43N, R32W, Sec. 02, 11
 T44N, R32W, Sec. 35, 36
 County: Iron
 Unit: Crystal Falls
 YOY: 2012
 Acres: 1,187 GIS Calculated
 Stand Examiner: Scott Sebero
 Map Revised: 07/28/2010
 Map Phase: Pre-Review

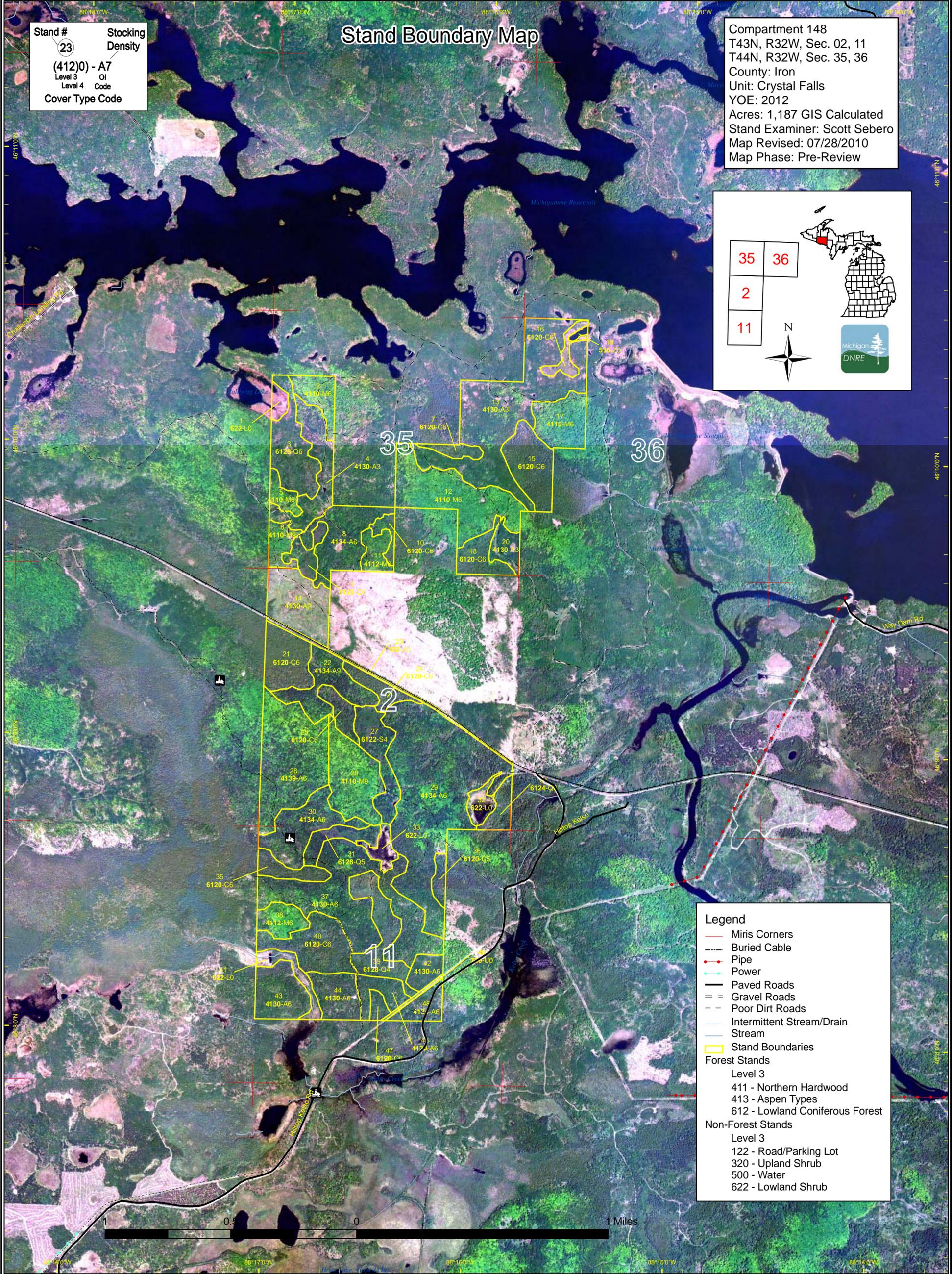


- Legend**
- Miris Corners
 - - - Buried Cable
 - Pipe
 - Power
 - Paved Roads
 - Gravel Roads
 - - - Poor Dirt Roads
 - - - Trails
 - ☒ Snowmobile Trails
 - ▭ Lakes and Rivers
 - ▭ Intermittent Stream/Drain
 - ▭ Stream
- Treatments**
- ▭ Clearcut (w/Reserves, Patch/Strip)
 - ▭ Thinning (Crown, Low, Systematic)
 - ▭ Selection (Group, Single Tree)
- Forest Stands**
- Level 3
- ▭ 411 - Northern Hardwood
 - ▭ 413 - Aspen Types
 - ▭ 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- Level 3
- ▭ 122 - Road/Parking Lot
 - ▭ 320 - Upland Shrub
 - ▭ 500 - Water
 - ▭ 622 - Lowland Shrub

Stand Boundary Map

Stand #
23
(412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code

Compartment 148
 T43N, R32W, Sec. 02, 11
 T44N, R32W, Sec. 35, 36
 County: Iron
 Unit: Crystal Falls
 YOY: 2012
 Acres: 1,187 GIS Calculated
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- Legend**
- Miris Corners
 - Buried Cable
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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 +		Uneven Age
Aspen	0	36	151	22	0	189	0	104	0	170	0	0	0	0	0	672
Cedar	0	0	0	0	0	0	0	0	0	170	0	0	0	0	0	170
Lowland Conifers	0	0	0	0	0	0	0	0	0	66	0	31	0	0	0	97
Lowland Shrub	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	25
Northern Hardwood	0	0	0	0	0	0	0	0	0	180	0	0	0	0	0	180
Upland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Urban	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Water	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	43	36	151	22	0	189	0	104	0	611	0	31	0	0	0	1187



Table 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2012

Compartment 148
Total Compartment Acres: 1187

Acres by Treatment Type

Commercial Harvest - 427	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>
Aspen	236	69	0	0	0	0	306
Northern Hardwood	0	0	0	0	121	0	121
Total	236	69	0	0	121	0	427



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	12148004-Cut	31.5	4130 - Aspen	High Density Sapling	15	Harvest	Patch or Strip Clearcut	Aspen	Cmpt. Review Proposal

Prescription Cut all merchantable aspen, balsam, spruce and mixed hardwood. Protect advanced regen.

Specs:

Other

Comments:

Next Regen survey per work constructions.

Steps:

8	12148008-Cut	36.2	4134 - Aspen, Spruce/Fir	High Density Pole	85	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription Cut all aspen and mixed hardwood with a 2" dbh or more. Cut all spruce and balsam with a stump diameter of six inches or greater. Leave all

Specs: red pine, white pine, cedar and hemlock. Retention will be a buffer along stand 9.

Other

Comments:

Next Regen survey per work constructions.

Steps:

11	12148011-Cut	10.7	4112 - Maple, Beech, Cherry Association	High Density Pole	85	Harvest	Crown Thinning	Maple, Beech, Cherry Association	Cmpt. Review Proposal
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Prescription Thin stand to 80 BA. Remove aspen and poorer quality hardwood stems first. Leave all cedar and hemlock.

Specs:

Other

Comments:

Next

Steps:

12	12148012-Cut	58.0	4110 - Sugar Maple Association	High Density Pole	85	Harvest	Crown Thinning	Sugar Maple Association	Cmpt. Review Proposal
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Prescription Thin stand to 80 BA. Remove aspen and poorer quality hardwood stems first. Leave all cedar and hemlock.

Specs:

Other

Comments:

Next

Steps:

22	12148022-Cut	30.3	4134 - Aspen, Spruce/Fir	High Density Log	85	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription Cut all aspen and mixed hardwood with a 2" dbh or more. Cut all spruce and balsam with a stump diameter of six inches or greater. Leave all

Specs: red pine, white pine, cedar and hemlock. Retention will be a buffer along stand 9.

Other

Comments: Stand will be harvested in 2011 YOY to allow for snowmobile reroute.

Next

Steps: Regen survey per work constructions.



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
26	12148026-Cut	69.4	4139 - Aspen, Mixed Deciduous	High Density Pole	85	Harvest	Group Selection	Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription</u> Cut mature aspen and spruce/fir and then poor quality mixed hardwood to lower residual BA to 50. Leave all red pine, white pine, cedar and <u>Specs:</u> hemlock.									
<u>Other</u> Stand has elevated water table in spots creating wet drainages with small pockets of cedar. Will paint out drainages. Should harvest in winter or <u>Comments:</u> dry summer. Snowmobile trail borders stand. Stand will be harvested in 2011 YOE to allow for snowmobile reroute.									
<u>Next</u> Regen survey per work constructions. <u>Steps:</u>									
28	12148028-Cut	38.9	4110 - Sugar Maple Association	High Density Log	85	Harvest	Crown Thinning	Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Thin stand to 80 BA. Remove aspen and poorer quality hardwood stems first. Leave all cedar and hemlock. <u>Specs:</u>									
<u>Other</u> Stand will be harvested in 2011 YOE to allow for snowmobile reroute. <u>Comments:</u>									
<u>Next</u> <u>Steps:</u>									
30	12148030-Cut	33.9	4134 - Aspen, Spruce/Fir	High Density Pole	85	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
<u>Prescription</u> Cut all aspen and mixed hardwood with a 2" dbh or more. Cut all spruce and balsam with a stump diameter of six inches or more. Leave all red <u>Specs:</u> pine, white pine, cedar and hemlock. Retention will be a buffer along stand 31 and 35.									
<u>Other</u> Stand will be harvested in 2010 YOE to allow for snowmobile reroute. <u>Comments:</u>									
<u>Next</u> Regen survey per work constructions. <u>Steps:</u>									
37	12148037-Cut	91.2	4130 - Aspen	High Density Pole	65	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal
<u>Prescription</u> Cut all aspen and mixed hardwood with a 2" dbh or more. Cut all spruce and balsam with a stump diameter of six inches or more. Leave all red <u>Specs:</u> pine, white pine, cedar and hemlock. Retention will be a buffer along stand 39 and 40.									
<u>Other</u> Stand will be harvested in 2011 YOE to allow for a snowmobile reroute. <u>Comments:</u>									
<u>Next</u> Regen survey per work constructions. <u>Steps:</u>									
38	12148038-Cut	13.7	4112 - Maple, Beech, Cherry Association	High Density Pole	85	Harvest	Crown Thinning	Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription</u> Thin stand to 80 BA. Remove aspen and poorer quality hardwood stems first. Leave all cedar and hemlock. <u>Specs:</u>									
<u>Other</u> Stand will be harvested in 2011 YOE to allow for snowmobile reroute. <u>Comments:</u>									
<u>Next</u> <u>Steps:</u>									

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	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
45	12148045-Cut	13.3	4130 - Aspen	High Density Pole	65	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription: Cut all aspen and mixed hardwood with a 2" dbh or more. Cut all spruce and balsam with a stump diameter of six inches or more. Leave all red pine, white pine, cedar and hemlock. Retention will be a buffer along stand 47.

Other Comments: Stand will be harvested in 2011 YOY to allow for snowmobile trail reroute

Next Steps: Regen survey per work constructions.

**Total Treatment
Acreage Proposed: 426.9**

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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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#Error

Prescription
Specs:

Other
Comment:

Next
Steps:

Limiting Factor and No
Treatment Reason

Total Treatment
Acreage Proposed: 0

Stand	Crystal Falls Mgt. Unit		5 – Forested Stands			Compartment: 148	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012	
2	4110 - Sugar Maple Association	High Density Pole	15.0	85	81-110		
3	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	32.6	85	81-110		
4	4130 - Aspen	High Density Sapling	31.5	15	1-50		Remove clumps of older aspen.
5	4110 - Sugar Maple Association	High Density Pole	7.7	85	81-110		Thinned in 1995.
6	4110 - Sugar Maple Association	High Density Log	10.7	85	81-110		Thinned in 1995.
7	6120 - Lowland Cedar	High Density Pole	6.3	85	81-110		
8	4134 - Aspen, Spruce/Fir	High Density Pole	36.2	85	81-110		
9	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	10.6	85	81-110		
10	6120 - Lowland Cedar	High Density Pole	5.6	85	81-110		
11	4112 - Maple, Beech, Cherry Association	High Density Pole	10.7	85	111-140		
12	4110 - Sugar Maple Association	High Density Pole	58.0	85	111-140		Aspen removed in most of stand in 1994.
13	4130 - Aspen	High Density Sapling	109.2	16			Sec. 35 SENE U1/24 Sec. 36 U7/8 Cabin in trespass on SENE of Sec. 35.
14	4130 - Aspen	Medium Density	35.6	8			
15	6120 - Lowland Cedar	High Density Pole	29.7	85	81-110		
16	6120 - Lowland Cedar	High Density Pole	7.7	85	141-170		U 7/8 interest.
17	4110 - Sugar Maple Association	High Density Pole	25.0	85	81-110		Thinned in 1994.
18	6120 - Lowland Cedar	High Density Pole	15.8	85	111-140		
20	4130 - Aspen	High Density Sapling	10.5	16			



S t a n d	Crystal Falls Mgt. Unit		5 – Forested Stands			Compartment: 148	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012	
							General Comments:
21	6120 - Lowland Cedar	High Density Pole	26.6	85	141-170		
22	4134 - Aspen, Spruce/Fir	High Density Log	30.2	85	81-110		
24	6120 - Lowland Cedar	High Density Pole	11.4	85	81-110		
25	6120 - Lowland Cedar	High Density Pole	10.4	85	81-110		
26	4139 - Aspen, Mixed Deciduous	High Density Pole	69.4	85	111-140	Some wet areas within stand.	Remove aspen and spruce/fir.
27	6122 - Black Spruce	Low Density Pole	25.4	85	1-50		
28	4110 - Sugar Maple Association	High Density Log	38.9	85	111-140		Thinned in 1980.
29	4134 - Aspen, Spruce/Fir	High Density Pole	143.0	45	81-110		
30	4134 - Aspen, Spruce/Fir	High Density Pole	33.9	85	81-110	Some wet areas within stand.	Some pockets of younger aspen from 1964 cut.
31	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	13.1	85	51-80		
34	6124 - Lowland Spruce- Fir	High Density Pole	9.8	85	81-110		
35	6120 - Lowland Cedar	High Density Pole	11.7	85	141-170		
36	6120 - Lowland Cedar	Medium Density Pole	6.0	85	1-50		
37	4130 - Aspen	High Density Pole	91.2	65	81-110	Some pockets of younger aspen from 1964 cut.	
38	4112 - Maple, Beech, Cherry Association	High Density Pole	13.7	85	111-140		
39	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	30.7	100	1-50		
40	6120 - Lowland Cedar	High Density Pole	34.1	85	81-110		
42	4130 - Aspen	High Density Pole	9.8	27	51-80		

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Crystal Falls Mgt. Unit

5 – Forested Stands

Compartment: 148

Inventory Method: IFMAP

Year of Entry: 2012



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	4130 - Aspen	High Density Pole	26.3	45	51-80	Rock outcrop, North/center of stand. Pockets of pole sized spruce on north and south ends of stand.
44	4130 - Aspen	High Density Pole	20.1	45	51-80	
45	4130 - Aspen	High Density Pole	13.3	65	81-110	Some pockets of younger aspen from 1964 cut.
47	6120 - Lowland Cedar	High Density Pole	4.5	85	81-110	
48	4134 - Aspen, Spruce/Fir	High Density Pole	12.2	27	51-80	



Stand	Cover Type	Acres	Gen Cmts:
1	6229 - Mixed lowland shrub	4.9	
19	50 - Water	1.4	
23	122 - Road/Parking Lot	7.4	
32	6229 - Mixed lowland shrub	8.4	
33	6229 - Mixed lowland shrub	8.1	
41	6229 - Mixed lowland shrub	10.9	
46	3205 - Mixed Upland Shrub	2.0	



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.

Inventory Method: IFMAP

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.