



**Crystal Falls Forest Management Unit
Compartment Review Presentation
Compartment #8 Entry Year: 2013
Compartment Acreage: 2256 (GIS Acres) County: Dickinson**

Revision Date: June 20, 2011

Stand Examiner: Linda Lindberg

Legal Description: T44N, R29W, Sections 3, 4, 5, 8, 9 and 10

RMU (if applicable):

Management Goals: This area has been managed fairly sustainably with sales spread throughout the compartment with age classes in aspen fairly spread out and there is a fair amount of diversity. This area is deer yard and the cedar and mixed swamp conifer areas are used extensively by the deer. This is also the fringe of "Jack Pine country and stands to the northeast reflect that with all the jack pine being in various states of regeneration. Two Mile Creek runs along the south side of the compartment and has a good buffer of cedar and mixed swamp conifer present. There is a presence of oak on the west side and we will keep the oak for mast but harvest the big tooth aspen which is desirable.

Soil and Topography: This compartment has everything from Cathro muck, fine sandy loam, and rubicon sand. Most areas are fairly flat with some areas with minor rolling hills.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This is fairly solid state ownership with a few 40's of private land with camps on them.

Unique, Natural Features: None

Archeological, Historical, and Cultural Features: None

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations: Text

Wildlife Habitat Considerations: This compartment is part of the Floodwood Deeryard. About 30% of this compartment is cedar or lowland conifer type, with the cedar being some of the highest quality on the forest. Every attempt should be made to protect these stands presently and in the future. White pine and hemlock have declined substantially. Efforts to increase the upland conifer component especially on those sites that

have a natural tendency to succeed to those species would increase species and structural diversity and benefit a wide range of wildlife species. Openings in this compartment will be treated if resources permit.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of medium-textured till and an end moraine of coarse-textured till. There is insufficient data to determine the glacial drift thickness. Precambrian Archean granite and gneiss subcrop below the glacial drift. There is not a current economic use for these rocks, although they might have building stone potential. A rock quarry (? type) lies six miles to the northeast. Iron mines are located approximately fifteen miles to the south. A gravel pit is indicated within two miles to the west. There appears to be good gravel potential in the compartment. Most of this area was previously leased and Section 3 is currently leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access: This access is through the Floodwood Road which goes through some of Marquette county with several logging roads moving into the interior of the compartment.

Survey Needs: None at present

Recreational Facilities and Opportunities: None

Fire Protection: None

Additional Compartment Information: Text

- **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 008
 T44N, R29W, Sec. 3-5, 8-10
 County: Dickinson
 Unit: Crystal Falls
 YOE: 2013
 Acres: 2,231 GIS Calculated
 Stand Examiner: Linda Lindberg
 Map Revised: 7/28/2011
 Map Phase: Pre-Review

Stand #
23
 Stacking
 Density
(412)0 - 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
- Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)

Forest Stands

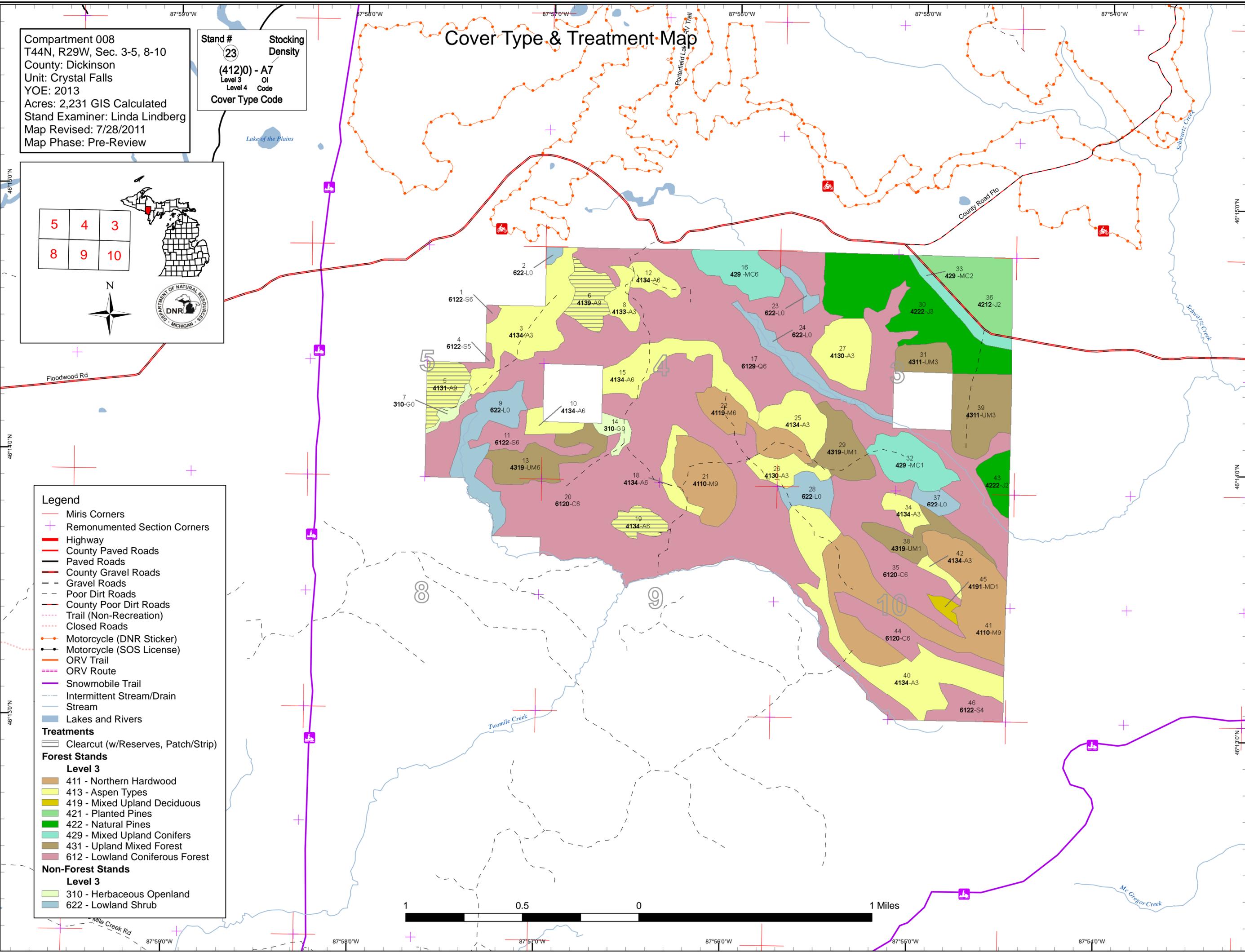
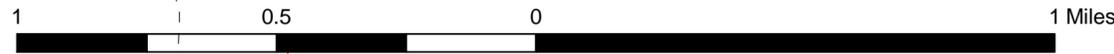
Level 3

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

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 622 - Lowland Shrub



Stand Boundary Map

Compartment 008
 T44N, R29W, Sec. 3-5, 8-10
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 (412)0 - A7
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 Level 4 Code
 Cover Type Code

5 4 3
 8 9 10

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Legend

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- + Remonumented Section Corners
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Forest Stands

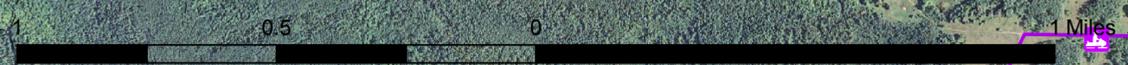
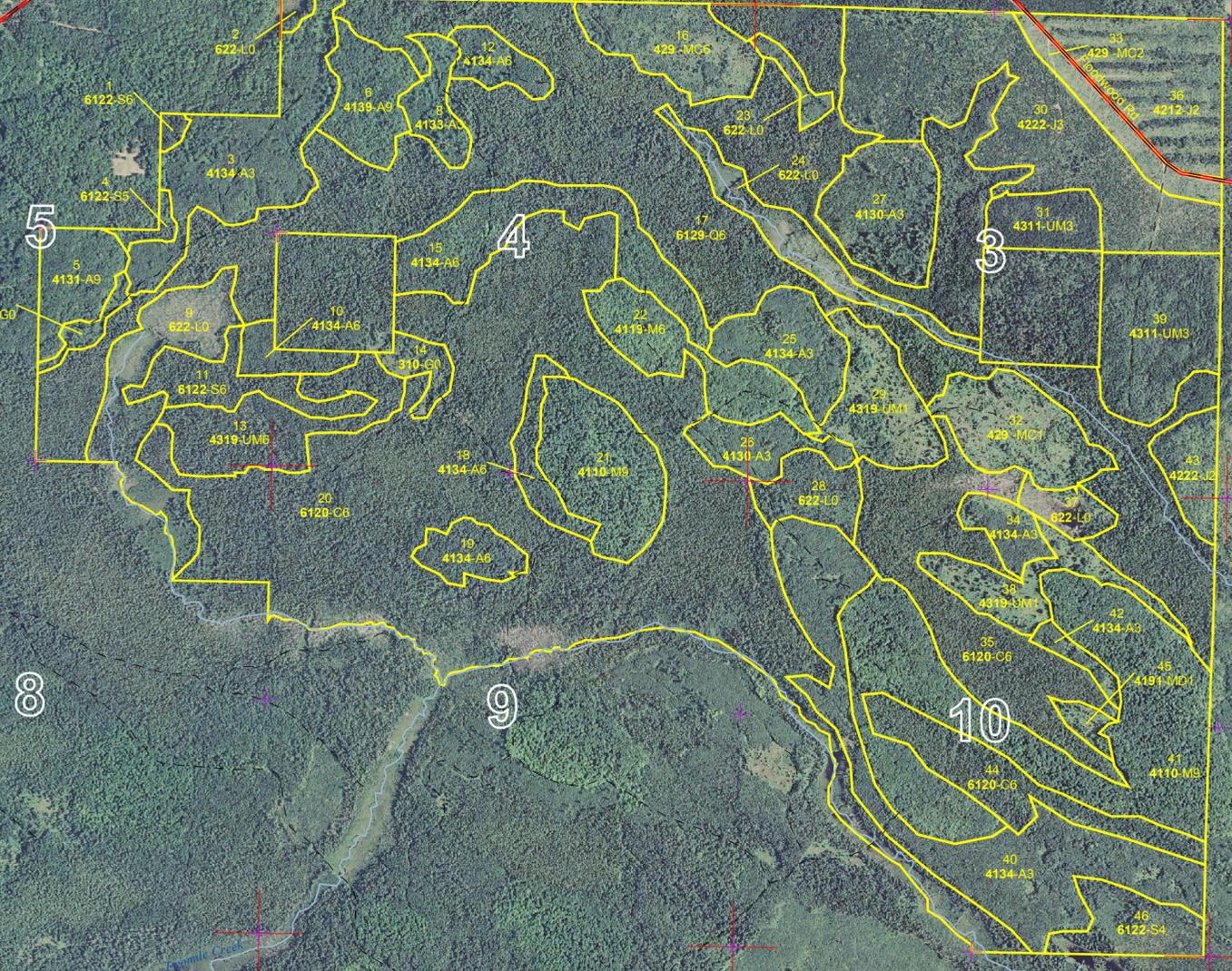
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	Age Class														Total	
	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Uneven Age
Aspen	0	0	101	182	13	14	0	0	0	49	0	0	0	0	74	433
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	526	0	0	526
Herbaceous Openland	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Jack Pine	0	0	116	71	0	0	0	0	0	0	0	0	0	0	0	187
Lowland Conifers	0	0	0	0	0	0	0	0	0	416	0	0	0	0	0	416
Lowland Shrub	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	53	0	0	0	0	0	53
Mixed Upland Deciduous	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
Northern Hardwood	0	0	0	0	0	0	0	0	0	226	0	0	0	0	0	226
Upland Conifers	0	0	18	73	0	0	0	0	0	0	0	0	0	0	0	91
Upland Mixed Forest	0	0	0	130	0	0	41	0	0	0	0	0	0	0	0	171
Total	124	0	235	460	13	14	41	0	0	743	0	0	526	0	74	2231



Table 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2013

Compartment 008
Total Compartment Acres: 2231

Acres by Treatment Type

Commercial Harvest - 64	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	64	0	0	0	0	0	64
Total	64	0	0	0	0	0	64

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5 12008005-Cut	23.2	4131 - Aspen, Oak	High Density Log	80	Harvest	Clearcut with Reserves	4121 - Oak, Aspen	Cmpt. Review Proposal

Prescription: Cut all species except oak, red and white pine, cedar, hemlock, elm and/or cherry if present. Cut all spruce and balsam that is 6 inches or greater in diameter at 4 inches above the ground.

Other Comments:

Next Steps: monitor for successful regeneration

6 12008006-Cut	25.9	4139 - Aspen, Mixed Deciduous	High Density Log	84	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
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Prescription: Cut all species except oak, cherry, hemlock, cedar, elm and red or white pine if present in the stand. Cut all spruce and balsam that is 6 inches or more in diameter at a 4 inch above the ground stump mark.

Other Comments:

Next Steps: Monitor for successful regeneration

19 12008019-Cut	14.4	4134 - Aspen, Spruce/Fir	High Density Pole	75	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal
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Prescription: Cut all species except oak, cherry, red and white pine, hemlock and cedar if present in the stand. Cut all spruce and balsam that are greater than 6 inches in diameter at a 4 inch stump mark.

Other Comments:

Next Steps: Monitor for regeneration

Total Treatment Acreage Proposed: 63.5

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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

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:

**Total Treatment
Acreage Proposed: 6.0**



Stand	Crystal Falls Mgt. Unit			5 – Forested Stands		Compartment: 008 Year of Entry: 2013	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
1	6122 - Black Spruce	High Density Pole	2.4	84	81-110		
3	4134 - Aspen, Spruce/Fir	High Density Sapling	64.0	26			
4	6122 - Black Spruce	Medium Density Pole	3.8	84			
5	4131 - Aspen, Oak	High Density Log	23.2	80	111-140	The aspen in the sale next door is only a foot tall but is supposed to be discouraged for oak regen I guess. I would like to keep the big tooth aspen growing in my stand since that is what the loggers will bid quite a price for. Some hills in this stand are rather steep.	
6	4139 - Aspen, Mixed Deciduous	High Density Log	25.9	84	111-140	save oak, red and white pine, elm and cherry	
8	4133 - Aspen, Mixed Pine	High Density Sapling	14.5	14		Aspen stand with red and white pine and spruce. Also good oak regen.	
10	4134 - Aspen, Spruce/Fir	High Density Pole	10.5	Uneven Age			
11	6122 - Black Spruce	High Density Pole	23.6	84			
12	4134 - Aspen, Spruce/Fir	High Density Pole	12.9	38			
13	4319 - Mixed Upland Forest	High Density Pole	41.3	56	81-110	This could be cut but if left for next time, it would be more age appropriate and with stand 15, will be sustainable. There are a few jack pine here and there. Possible Logging Camp site. I am afraid it might end up like stand 29 and /or 32.	
15	4134 - Aspen, Spruce/Fir	High Density Pole	49.6	Uneven Age	81-110	This has a mixture of ages and since we are cutting other stands, this would be good to leave for age class diversity.	
16	429 - Mixed Upland Conifers	High Density Pole	35.0	25		tag alder clumps here and there, lots of conifers, 10-20' tall	
17	6129 - Mixed Coniferous Lowland Forest	High Density Pole	415.6	84		This is variable in species depending where you go but is all mixed lowland conifer and is all deeryard.	
18	4134 - Aspen, Spruce/Fir	High Density Pole	13.6	46	111-140		
19	4134 - Aspen, Spruce/Fir	High Density Pole	14.4	Uneven Age	81-110	This is a shopper's choice stand where trees were cut and trees were not but there seems to be a larger amount of older trees so it should be cut.	
20	6120 - Lowland Cedar	High Density Pole	403.0	116	141-170	Two mile Creek runs on the south side of the compartment and is the compartment boundary.	



Stand	Crystal Falls Mgt. Unit			5 – Forested Stands		Compartment: 008 Year of Entry: 2013
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	4110 - Sugar Maple Association	High Density Log	46.2	80	81-110	
22	4119 - Mixed Northern Hardwoods	High Density Pole	35.1	84	81-110	
25	4134 - Aspen, Spruce/Fir	High Density Sapling	29.5	14		2 inch diameter and 25 ' tall
26	4130 - Aspen	High Density Sapling	18.2	14		
27	4130 - Aspen	High Density Sapling	38.4	15		
29	4319 - Mixed Upland Forest	Low Density Sapling	32.7	24		Many open areas in this stand. Some fir, some aspen clones, some raspberries that used to have hardwood. There are cherries here that the bears have obviously been in.
30	42220 - Natural Jack Pine	High Density Sapling	115.9	15		3-4 inch very thick growing jack pine
31	4311 - Pine, Aspen Mix	High Density Sapling	18.7	24		
32	429 - Mixed Upland Conifers	Low Density Sapling	37.6	24		this stand is a replica of stand 29. There are a few clones of aspen and cherry here and there, lots of raspberries, and a lot of grassland with conifers spread here and there.
33	429 - Mixed Upland Conifers	Medium Density	18.3	10		
34	4134 - Aspen, Spruce/Fir	High Density Sapling	12.1	24		This was part of a much larger stand that did not regenerate where there wasn't any aspen so I cut out the open parts
35	6120 - Lowland Cedar	High Density Pole	86.5	116	111-140	
36	42120 - Planted Jack Pine	Medium Density	54.0	20		4 to 6 inches 30 feet tall
38	4319 - Mixed Upland Forest	Low Density Sapling	26.3	22		
39	4311 - Pine, Aspen Mix	High Density Sapling	52.0	23		4 to 6 inch aspen that is 30 feet tall and 4-6 inch jack pine that is 30 feet tall also.
40	4134 - Aspen, Spruce/Fir	High Density Sapling	99.9	22		
41	4110 - Sugar Maple Association	High Density Log	144.3	84	81-110	There is no sedge in this stand which is unusual

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Crystal Falls Mgt. Unit

5 – Forested Stands

Compartment: 008
Year of Entry: 2013



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
42	4134 - Aspen, Spruce/Fir	High Density Sapling	6.2	24		
43	42220 - Natural Jack Pine	Medium Density	16.8	24		
44	6120 - Lowland Cedar	High Density Pole	36.9	116	81-110	
45	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	5.1	24		
46	6122 - Black Spruce	Low Density Pole	23.2	84		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	6229 - Mixed lowland shrub	2.7	No	Unspecified	
7	3102 - Grass	5.9	No	Unspecified	
9	6229 - Mixed lowland shrub	46.2	N/A	Unspecified	
14	3102 - Grass	9.2	No	Unspecified	Lots of tamerack, small aspen, spruce and balsam of all sizes There are also a lot of grassy areas
23	6229 - Mixed lowland shrub	5.9	No	Unspecified	
24	6229 - Mixed lowland shrub	25.3	No	Unspecified	
28	6229 - Mixed lowland shrub	18.6	No	Unspecified	
37	6229 - Mixed lowland shrub	10.3	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.