



**Crystal Falls Forest Management Unit
Compartment Review Presentation
Compartment #143 Entry Year: 2013
Compartment Acreage: 719 County: Iron**

Revision Date: June 23, 2011

Stand Examiner: Cynthia Cooper

Legal Description: T43N, R 31W. Sections 1-3.

RMU (if applicable): None

Management Goals: Maintain and improve aspen and hardwoods.

Soil and Topography: The eastern half of this compartment is mostly Lupton-Cathro-Humaquents complex (muck) which is poorly to very poorly drained soil found in lowlands. In the western half Keweenaw-Karlin complex soils, which are well to excessively well drained, predominate.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The majority of this compartment is surrounded by single ownerships and industrial timber lands.

Unique, Natural Features: None.

Archeological, Historical, and Cultural Features: None.

Special Management Designations or Considerations: None.

Watershed and Fisheries Considerations:

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:

Compartment 143: Sections 1 - 3, T43N-R31W, Iron Co.

Surface sediments consist of an end moraine of coarse-textured glacial till. The glacial drift thickness varies between 10 and 50 feet. The Precambrian Hemlock and Michigamme Formations subcrop below the glacial

drift. There is not a current economic use for these rocks. The abandoned Mansfield iron mine is located two miles to the southwest. This compartment was previously leased for metallic exploration and potential may still exist. The Lake Ellen kimberlite discovery lies to the north. The nearest gravel pit is located two miles to the southeast. There should be gravel potential in the compartment. There is no economic oil and gas production in the UP.

Vehicle Access: West half had fair access. East side poor. Compartment can be accessed only through private ownerships.

Survey Needs: Corners will be needed in section 3.

Recreational Facilities and Opportunities: Sections 1 and 2 are winter deer yard.

Fire Protection:

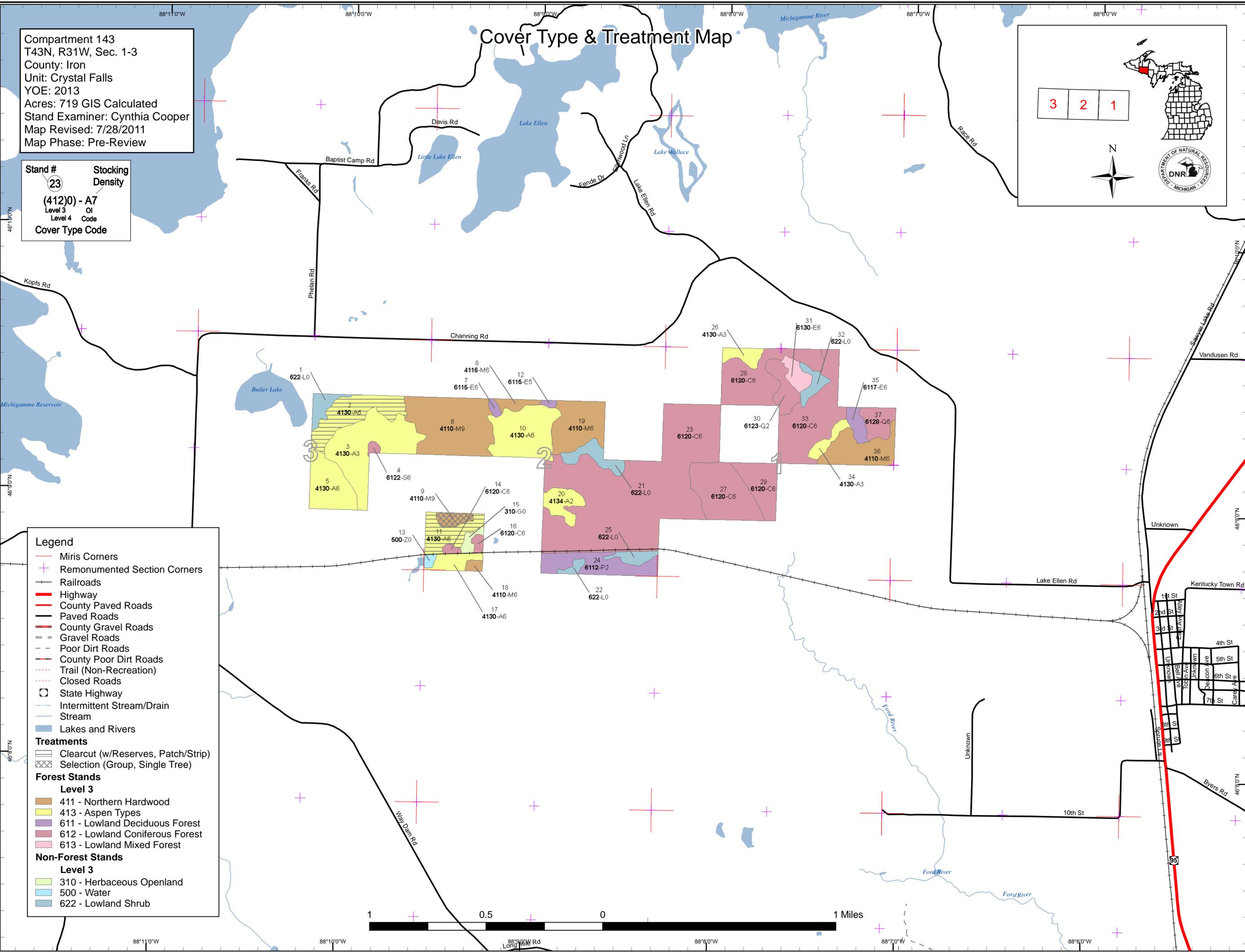
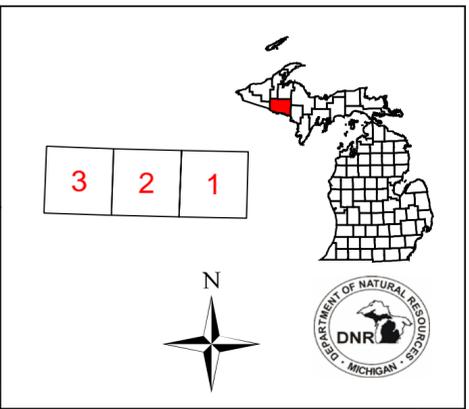
Additional Compartment Information:

- **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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Cover Type & Treatment Map

Compartment 143
 T43N, R31W, Sec. 1-3
 County: Iron
 Unit: Crystal Falls
 YOY: 2013
 Acres: 719 GIS Calculated
 Stand Examiner: Cynthia Cooper
 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
- Railroads
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- State Highway
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Selection (Group, Single Tree)

Forest Stands

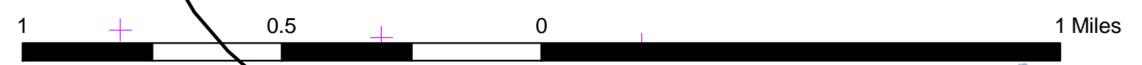
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

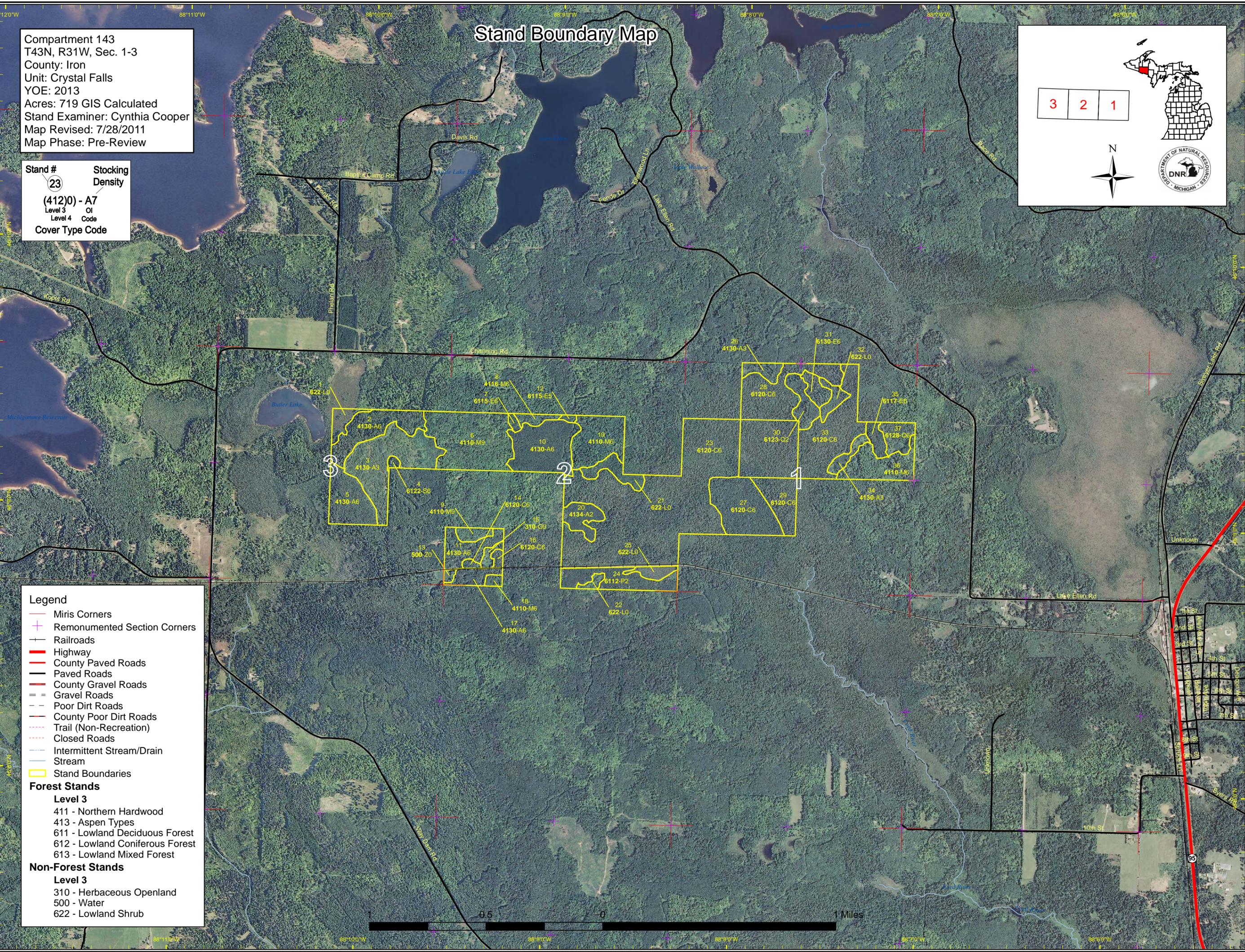
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub



Stand Boundary Map

Compartment 143
 T43N, R31W, Sec. 1-3
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- Closed Roads
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- Stream
- Stand Boundaries

Forest Stands

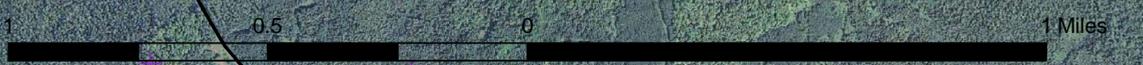
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Non-Forest Stands

Level 3

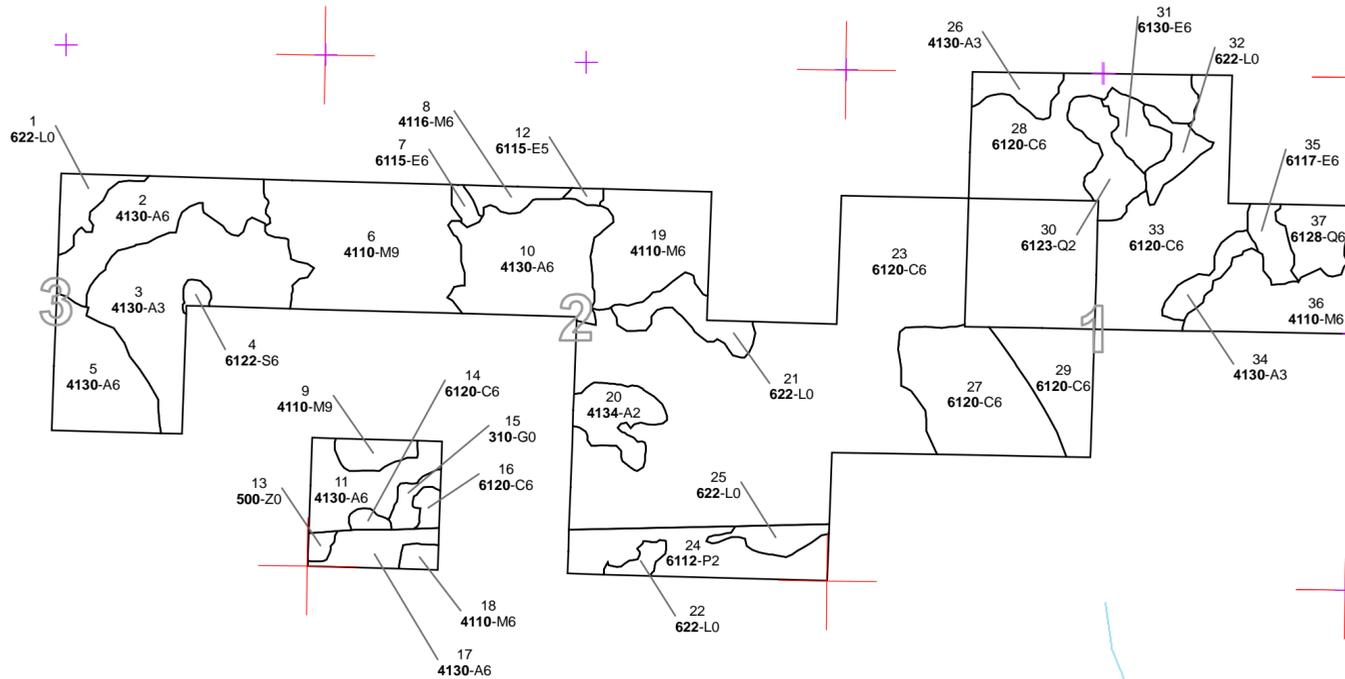
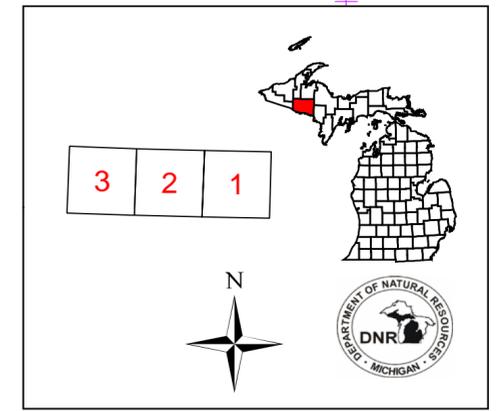
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- 500 - Water
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Dedicated & Proposed Special Conservation Area Map

Compartment 143
 T43N, R31W, Sec. 1-3
 County: Iron
 Unit: Crystal Falls
 YOY: 2013
 Acres: 719 GIS Calculated
 Stand Examiner: Cynthia Cooper
 Map Revised: 7/28/2011
 Map Phase: Pre-Review

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 23
Stocking Density
 (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 Lakes
 - Cold Water Streams
 - Deer Wintering Areas
 - Forest Stands**
 - Level 3
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
 - Non-Forest Stands**
 - Level 3
 - 310 - Herbaceous Openland
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 - 622 - Lowland Shrub

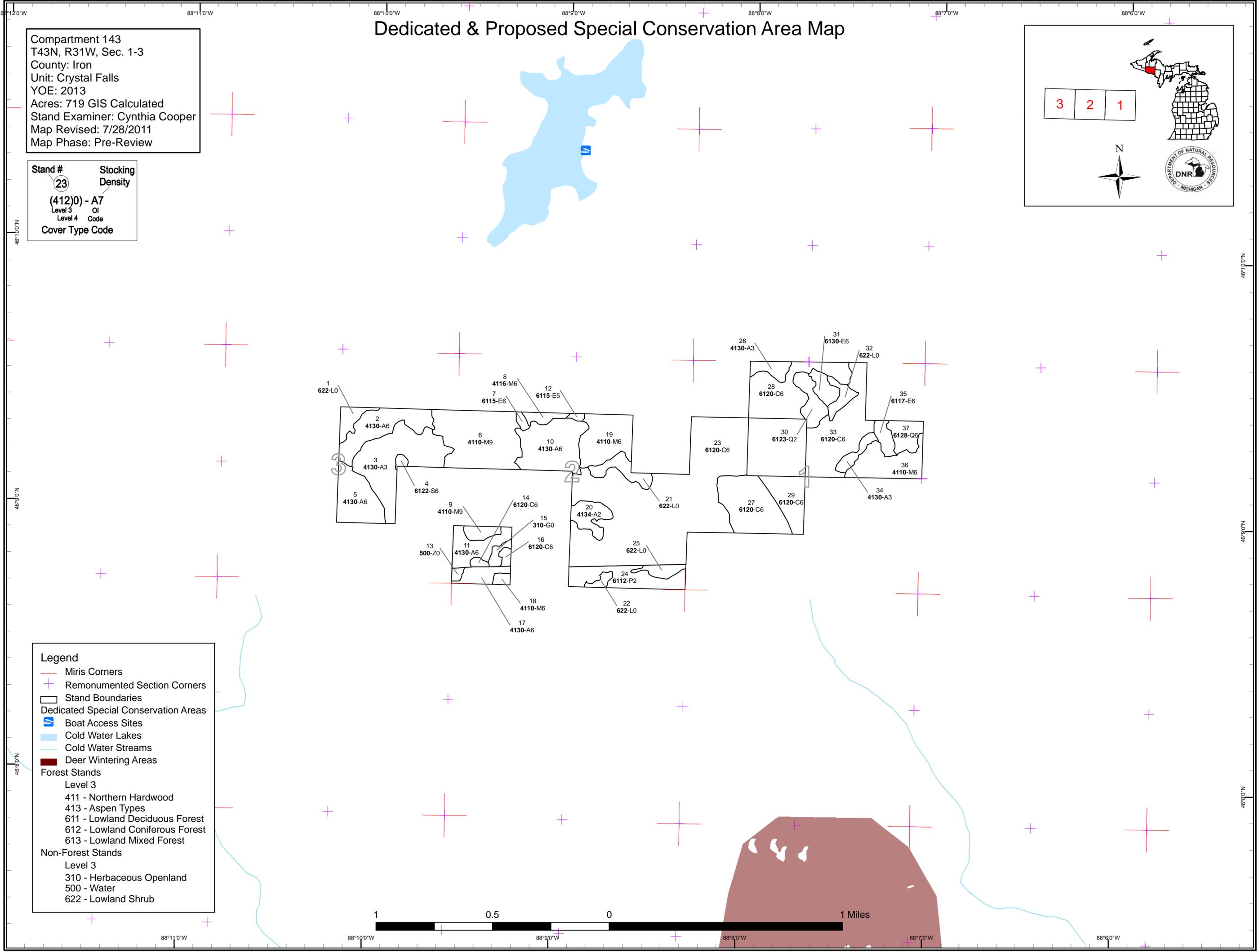
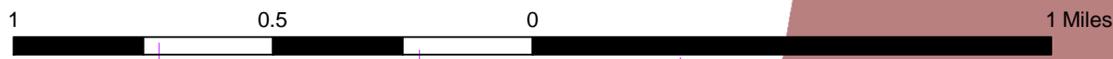


Table 1 – Total Acres by Cover Type and Age Class



	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 +		Unretn Age
Aspen	0	49	6	61	0	35	0	0	0	16	0	0	0	0	18	184
Cedar	0	0	0	0	0	0	0	0	0	0	0	318	0	0	0	318
Herbaceous Openland	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Aspen/Balsam Poplar	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	23
Lowland Conifers	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	22
Lowland Deciduous	0	0	0	0	0	0	0	3	0	6	0	0	0	0	0	9
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7
Lowland Shrub	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Northern Hardwood	0	0	0	0	0	0	0	0	0	5	108	0	0	0	5	117
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	36	49	6	84	0	35	0	0	3	29	124	318	0	0	34	719



Table 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2013

Compartment 143
Total Compartment Acres: 718.6

Acres by Treatment Type

Commercial Harvest - 48	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
Aspen	43	0	0	0	0	0	43
Northern Hardwood	0	5	0	0	0	0	5
Total	43	5	0	0	0	0	48



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	12143002-Cut	27.0	4130 - Aspen	High Density Pole	46	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Clear cut down to 2" dbh except cut no tamarack and no cedar, pine, oak or hemlock if present.

Specs:

Other

Comments:

Next Regeneration survey.

Steps:

9	12143009-Cut	5.1	4110 - Sugar Maple Association	High Density Log	95	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Thin reducing basal area to 80. Leave some aspen in stand for diversity.

Specs:

Other

Comments:

Next

Steps:

11	12143011-Cut	15.9	4130 - Aspen	High Density Pole	85	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription Clear cut down to 2" retaining spruce/fir less than 6" on the stump and any pine, oak or hemlock if present.

Specs:

Other

Winter cut would be good, but not required, to protect advance hardwood regeneration along stand 9 boundary in the northwest.

Comments:

Next Regeneration survey

Steps:

**Total Treatment
Acreage Proposed: 48.1**

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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: 143 Year of Entry: 2013	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
2	4130 - Aspen	High Density Pole	27.0	46			
3	4130 - Aspen	High Density Sapling	48.9	6		cut in 2004	
4	6122 - Black Spruce	High Density Pole	1.5	85		tiny stand at edge of clearcut aspen.	
5	4130 - Aspen	High Density Pole	24.8	26			
6	4110 - Sugar Maple Association	High Density Log	53.7	95			
7	6115 - Lowland Ash	High Density Pole	1.8	75			
8	4116 - Mixed N. Hardwood - Aspen	High Density Pole	4.5	85	81-110		
9	4110 - Sugar Maple Association	High Density Log	5.1	Uneven Age	111-140	many hard maple saps and some seedlings	
10	4130 - Aspen	High Density Pole	36.1	25			
11	4130 - Aspen	High Density Pole	15.9	85			
12	6115 - Lowland Ash	Medium Density Pole	1.2	75			
14	6120 - Lowland Cedar	High Density Pole	1.7	102			
16	6120 - Lowland Cedar	High Density Pole	2.2	102			
17	4130 - Aspen	High Density Pole	8.0	40			
18	4110 - Sugar Maple Association	High Density Pole	2.2	90	81-110		
19	4110 - Sugar Maple Association	High Density Pole	27.8	95			
20	4134 - Aspen, Spruce/Fir	Medium Density	11.3	Uneven Age		spruce/fir stand cut in 1995 coming back to aspen and spruce/fir.	
23	6120 - Lowland Cedar	High Density Pole	177.4	108			

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Crystal Falls Mgt. Unit

5 – Forested Stands

Compartment: 143
Year of Entry: 2013

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	6112 - Lowland Aspen	Medium Density	23.2	20		
26	4130 - Aspen	High Density Sapling	6.7	Uneven Age		
27	6120 - Lowland Cedar	High Density Pole	36.6	108		
28	6120 - Lowland Cedar	High Density Pole	36.3	108		
29	6120 - Lowland Cedar	High Density Pole	18.6	108		
30	6123 - Lowland Fir	Medium Density	11.3	Uneven Age		white pine residual from last cut.
31	6130 - Fir, Aspen, Maple	High Density Pole	7.1	85		wet
33	6120 - Lowland Cedar	High Density Pole	45.3	108		
34	4130 - Aspen	High Density Sapling	5.8	13		
35	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	6.0	95		
36	4110 - Sugar Maple Association	High Density Pole	23.9	98	81-110	Thinned in 1998 Hemlock in stand.
37	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	10.5	95		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	6229 - Mixed lowland shrub	6.8	No	Unspecified	
13	50 - Water	1.6	No	Unspecified	
15	3102 - Grass	3.3	No	Unspecified	
21	6229 - Mixed lowland shrub	10.1	No	Unspecified	
22	6229 - Mixed lowland shrub	2.6	No	Unspecified	
25	6229 - Mixed lowland shrub	5.5	No	Unspecified	
32	6229 - Mixed lowland shrub	6.2	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
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