



**Crystal Falls Forest Management Unit
Compartment Review Presentation
Compartment #170 Entry Year: 2014
Compartment Acreage: 596 County: Iron**

Revision Date: June 9, 2012

Stand Examiner: Cynthia Cooper

Legal Description: T42N, R31W, Sections 33 & 34

RMU (if applicable):

Management Goals: For this year of entry, improve aspen and salvage softwoods damaged by spruce budworm.

Soil and Topography: Fine sandy loams predominate. The area is mostly flat upland, the main exception being the Gage's Creek corridor.

Ownership Patterns, Development, and Land Use in and Around the Compartment: State Forest land used for timber production surrounded by private ownerships. Michigamme Lake to the south and Peavy Pond to the west make this area very popular with water enthusiasts.

Unique, Natural Features: Gage's Creek

Archeological, Historical, and Cultural Features:

Special Management Designations or Considerations: Spruce Budworm has caused a decline in the health of conifers in the southwest of section 34.

Watershed and Fisheries Considerations: Gage's Creek.

Wildlife Habitat Considerations: This compartment is located on the south end of the Old Camp 5 Deer Wintering Complex. The ability of this complex to maintain wintering deer has declined as the upland conifer component has decreased and lowland conifer components have been impacted by harvests within this compartment and in adjacent compartments and other ownerships. The ability of this area to winter deer hinges on protection of lowland conifers and enhancement of upland conifers. Spruce budworm will result in extensive losses of both spruce and fir, so reliance on hemlock, cedar and pine will become critical.

Mineral Resource and Development Concerns and/or Restrictions: Compartment 170: Sections 33 & 34, T42N-R31W, Iron County

Surface sediments consist of an end moraine of coarse-textured till. The glacial drift thickness varies between 50 and 200 feet. The Precambrian Menominee and Chocolay Formations, and Archean granite/gneiss and volcanic and sedimentary rocks subcrop below the glacial drift. There is not a current economic use for these rocks, although the granite/gneiss may have dimension stone potential. Abandoned iron mines are located six miles to the north. Part of this area was previously leased for metallic exploration and potential may still exist. A gravel pit is located in Section 33 and there should be potential. There is no economic oil and gas production in the UP.

Vehicle Access: Private property limits access to the north portion of section 33 and the south half of section 34.

Survey Needs: None this year of entry.

Recreational Facilities and Opportunities: Fishing Gage's Creek.

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

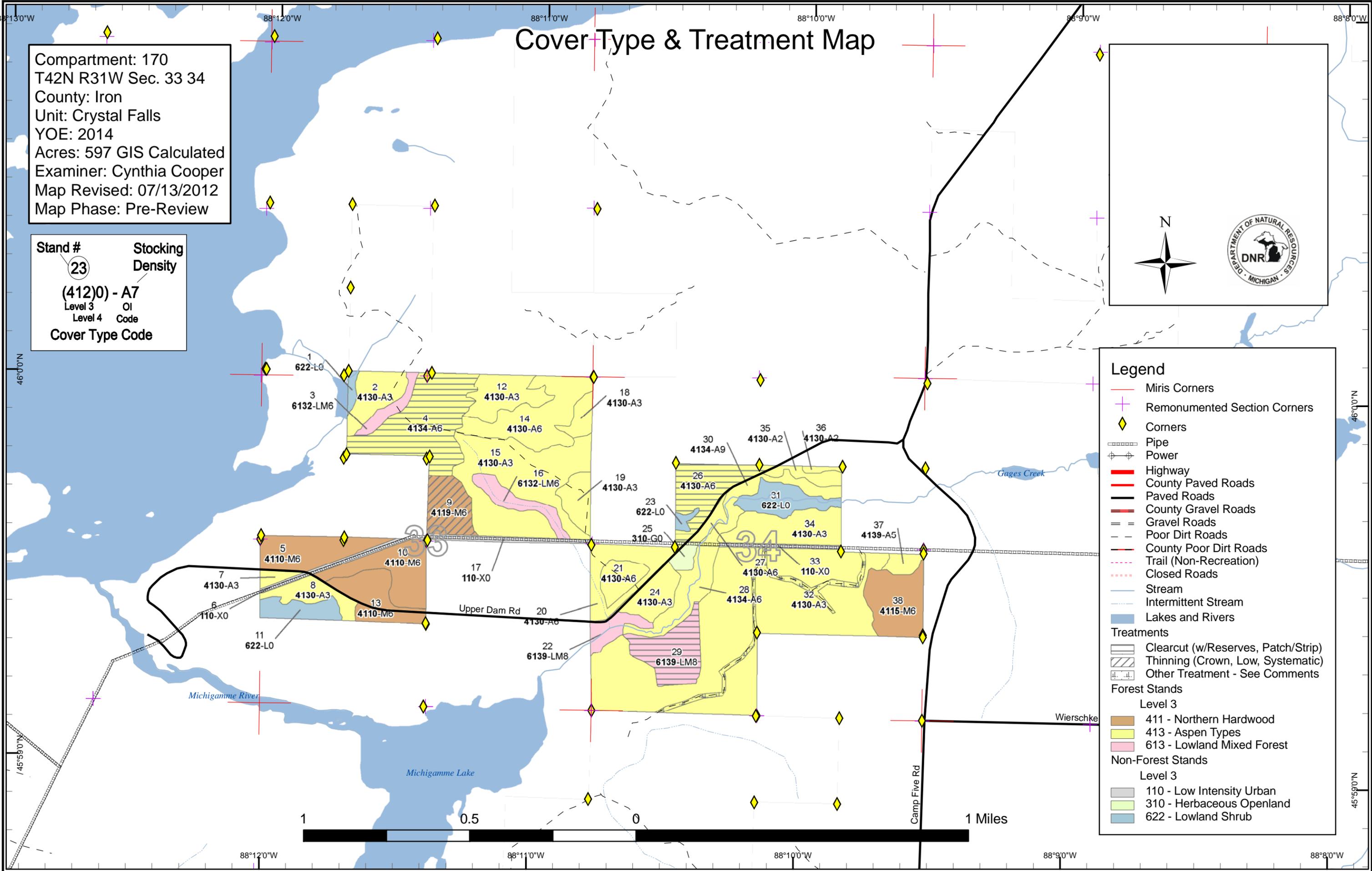
Compartment: 170
 T42N R31W Sec. 33 34
 County: Iron
 Unit: Crystal Falls
 YOY: 2014
 Acres: 597 GIS Calculated
 Examiner: Cynthia Cooper
 Map Revised: 07/13/2012
 Map Phase: Pre-Review

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



Legend

- Miris Corners
- + Remonumented Section Corners
- ◆ Corners
- Pipe
- Power
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- - - Trail (Non-Recreation)
- - - Closed Roads
- Stream
- - - Intermittent Stream
- Lakes and Rivers
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)
- Other Treatment - See Comments
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
- 413 - Aspen Types
- 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3**
- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 622 - Lowland Shrub



Stand Boundary Map

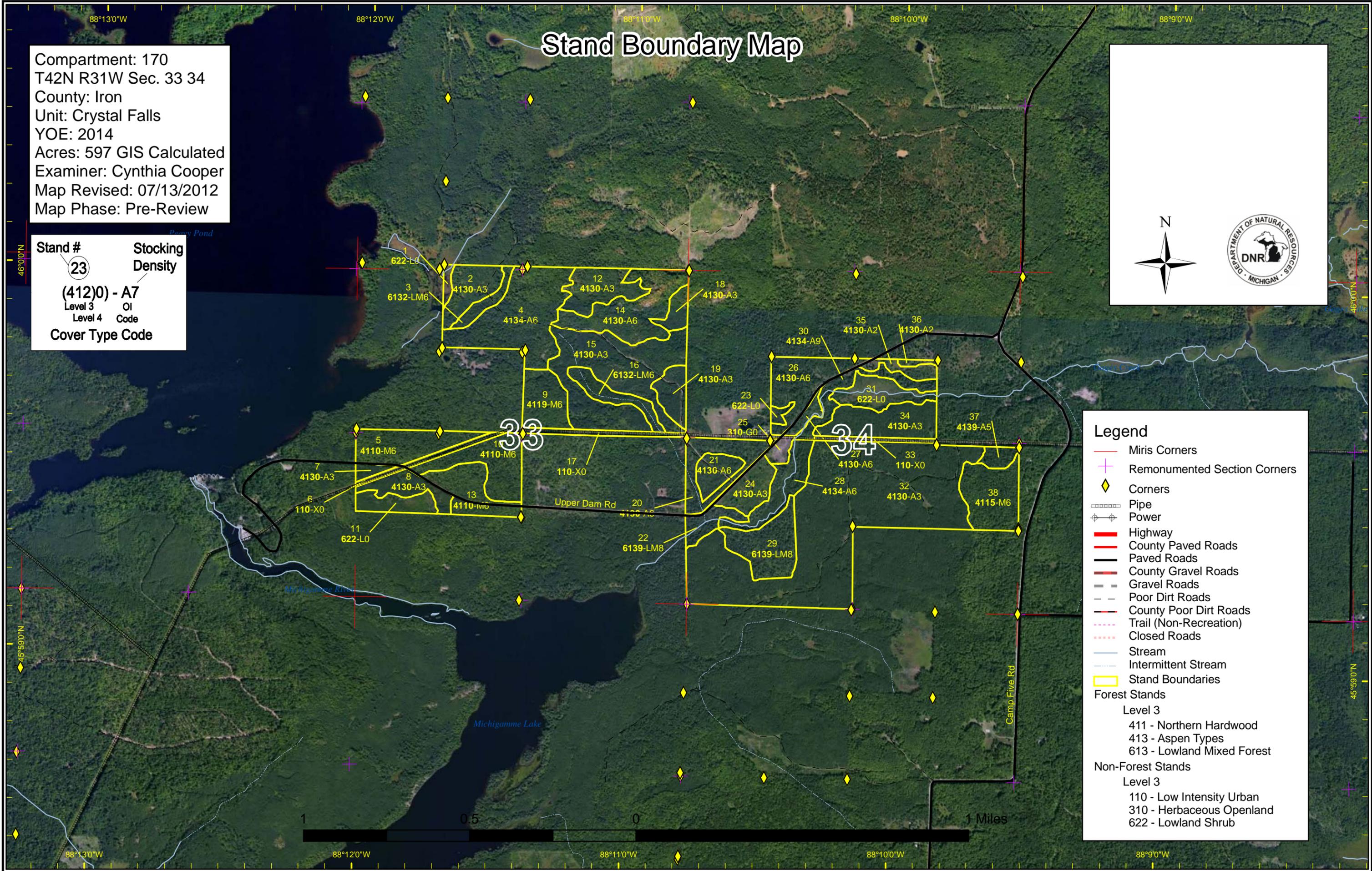
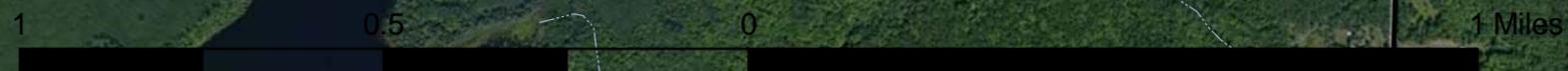
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Legend

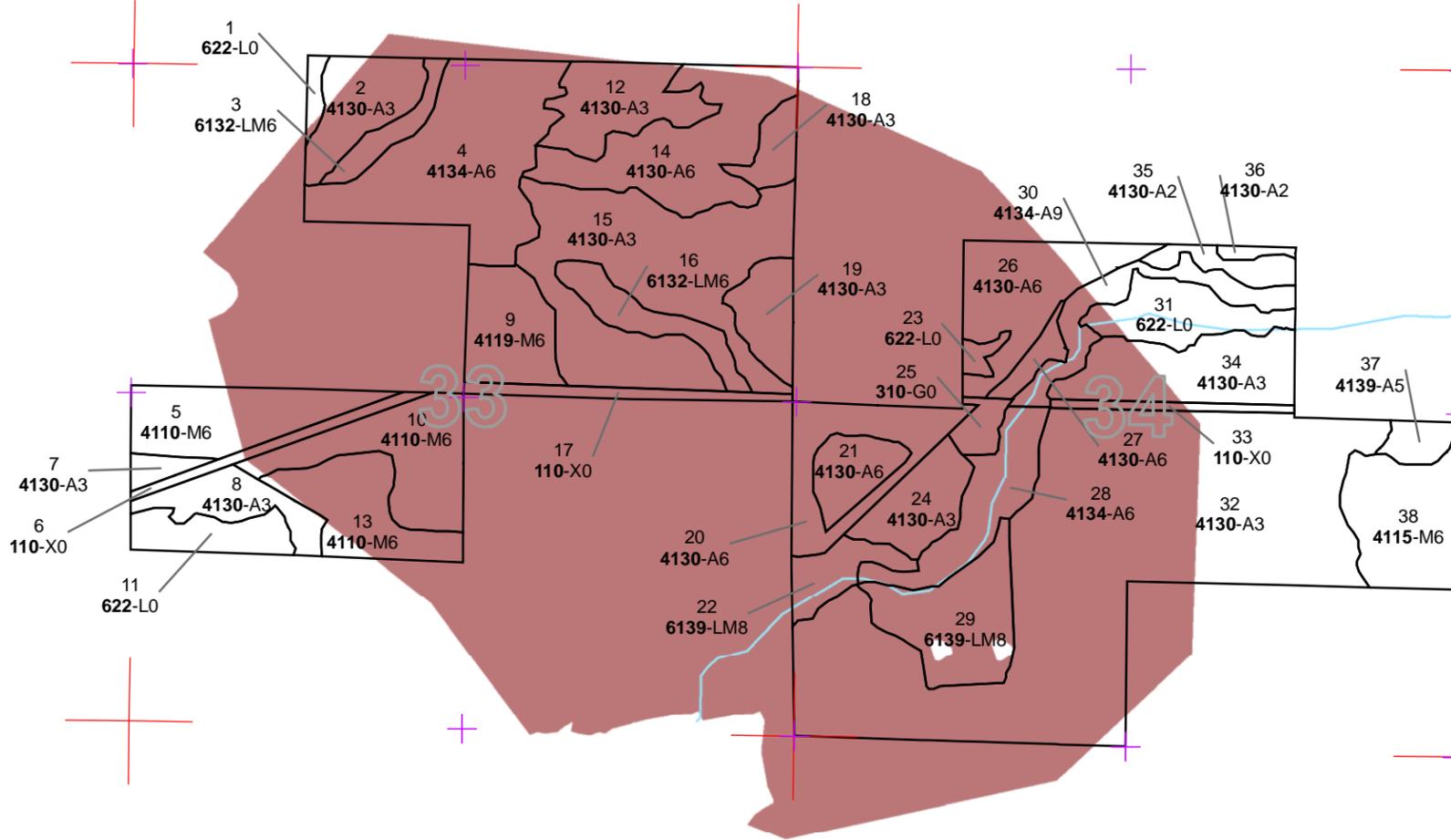
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Dedicated & Proposed Special Conservation Area Map

Compartment: 170
 T42N R31W Sec. 33 34
 County: Iron
 Unit: Crystal Falls
 YOE: 2014
 Acres: 597 GIS Calculated
 Examiner: Cynthia Cooper
 Map Revised: 07/13/2012
 Map Phase: Pre-Review

Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 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
 - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3
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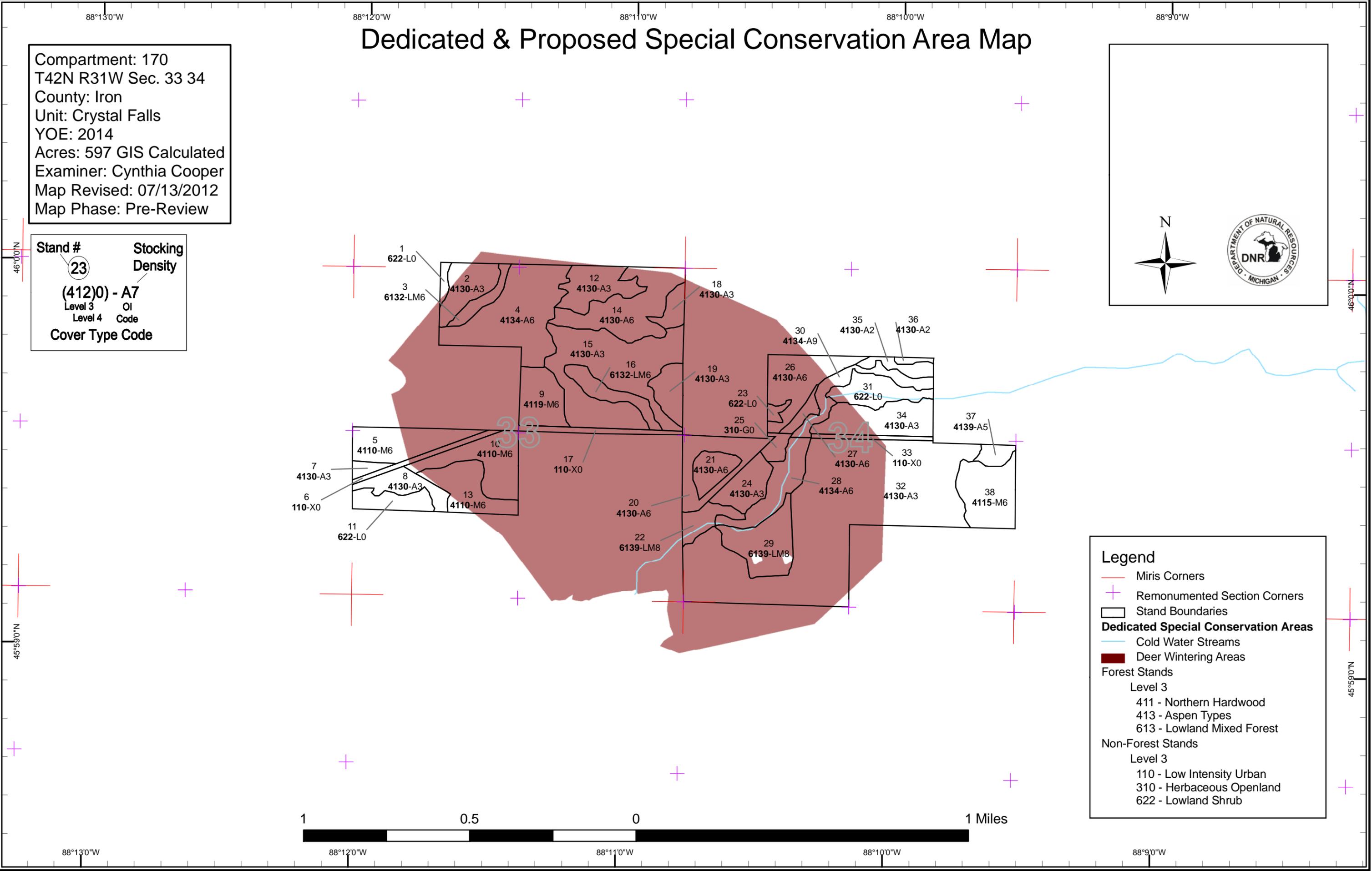


Table 1 – Total Acres by Cover Type and Age Class



	Age Class														Total
	0-9	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	16	1	265	0	35	0	35	0	74	0	0	0	0	0	427
Herbaceous Openland	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Mixed Forest	0	0	0	0	0	0	0	9	32	0	0	0	0	0	41
Lowland Shrub	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Northern Hardwood	0	0	0	0	0	0	0	0	89	0	0	0	0	0	89
Urban	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Total	56	1	265	0	35	0	35	9	195	0	0	0	0	0	597



Table 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2014

Compartment 170
Total Compartment Acres: 596.6

Acres by Treatment Type

Commercial Harvest - 94	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 9	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	60	0	0	0	0	0	0	60
Lowland Mixed Forest	20	0	0	0	0	0	0	20
Northern Hardwood	0	0	0	0	14	0	0	14
Total	80	0	0	0	14	0	0	94



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	12170004-Cut	40.4	4134 - Aspen, Spruce/Fir	High Density Pole	82		Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Stand was approved in review as a clear cut in the 2011 additions to harvest and is currently under contract.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2012

9	12170009-Cut	14.2	4119 - Mixed Northern Hardwoods	High Density Pole	82		Harvest	Crown Thinning	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal
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Prescription This stand is under contract as part of the 2011 additions to harvest.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2012

26	12170026-Cut	20.0	4130 - Aspen	High Density Pole	60		Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription cut all trees down to a 2" dbh except cut spruce/fir 6" and greater at the stump. Cut no pine.

Specs:

Other

Comments:

Next regeneration survey.

Steps:

Proposed

Start Date: 10/01/2013

29	12170029-Cut	19.7	6139 - Mixed Lowland Forest	Medium Density Log	87		Harvest	Clearcut	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription cut all trees down to a 2" dbh except cut no pine, hemlock or cedar if present.

Specs:

Other

Comments: Spruce budworm has been in this stand.

Next regeneration survey

Steps:

Proposed

Start Date: 10/01/2013

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
32 12170032-NonFor	9.3	4130 - Aspen	High Density Sapling	27		Non-Forest Management	Other - Specify	31021 - Cool Season Grass	Cmpt. Review Proposal

Prescription: Seed hunter walking trail system. Trail system is 40 feet wide.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: Unspecified

**Total Treatment
Acreage Proposed: 103.5**

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Error

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Error

Limiting Factor and No
Treatment Reason

Total Treatment
Acres Proposed: 0

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

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12091001-Cut	31.4	4110 - Sugar Maple Association	High Density Log	87		Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal - Incomplete

Prescription: Mark trees to 80 BA leaving best tree in place according to the Compleat Marker but focusing on White Ash to avoid Emerald Ash borer devastation. Create canopy gaps for regeneration

Other Comments:

Next Steps: Regen check according to certification

Proposed Start Date: 10/01/2013

Total Treatment Acreage Proposed: 31.4



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4130 - Aspen	High Density Sapling	12.6	27		
3	6132 - Mixed Lowland Forest with Cedar	High Density Pole	5.1	82		
4	4134 - Aspen, Spruce/Fir	High Density Pole	40.4	82		Stand currently on proposal as additional acres for 2011.
5	4110 - Sugar Maple Association	High Density Pole	18.5	82	81-110	Cut in 2007 as Magnetic Hardwoods
7	4130 - Aspen	High Density Sapling	2.4	26		
8	4130 - Aspen	High Density Sapling	9.8	26		
9	4119 - Mixed Northern Hardwoods	High Density Pole	14.2	82		Stand on proposal as additional acres for 2011. Chess Sale
10	4110 - Sugar Maple Association	High Density Pole	19.8	82	81-110	Stand cut in 2007 as Magnetic Hardwoods.
12	4130 - Aspen	High Density Sapling	14.8	27		
13	4110 - Sugar Maple Association	High Density Pole	16.2	82	51-80	
14	4130 - Aspen	High Density Pole	27.5	47		
15	4130 - Aspen	High Density Sapling	52.9	27		
16	6132 - Mixed Lowland Forest with Cedar	High Density Pole	8.8	79		
18	4130 - Aspen	High Density Sapling	5.0	27		
19	4130 - Aspen	High Density Sapling	8.3	27		
20	4130 - Aspen	High Density Pole	15.3	60		
21	4130 - Aspen	High Density Pole	8.0	47		
22	6139 - Mixed Lowland Forest	Medium Density Log	7.1	87		

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Crystal Falls Mgt. Unit

5 – Forested Stands

Compartment: 170
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	4130 - Aspen	High Density Sapling	11.1	6		small amount of F and WP residual
26	4130 - Aspen	High Density Pole	20.0	60		
27	4130 - Aspen	High Density Pole	3.2	82		Stand is between road and slope to creek.
28	4134 - Aspen, Spruce/Fir	High Density Pole	15.1	82		Buffer to Baird/Gages Creek
29	6139 - Mixed Lowland Forest	Medium Density Log	19.7	87		
30	4134 - Aspen, Spruce/Fir	High Density Log	11.5	82		
32	4130 - Aspen	High Density Sapling	138.1	27		moving into A5
34	4130 - Aspen	High Density Sapling	20.6	27		Moving into A5
35	4130 - Aspen	Medium Density	4.8	6		
36	4130 - Aspen	Medium Density	1.3	17		
37	4139 - Aspen, Mixed Deciduous	Medium Density Pole	3.9	86		Intention in previous YOE was to convert this to a hardwood stand soon a portion of the aspen was removed when cut in 2007 as the Magnitic Hardwoods sale. Stand is now about 50/50 aspen and mixed hardwood poles.
38	4115 - Y.Birch, Hemlock NH	High Density Pole	20.5	86	81-110	Cut in 2007 as Magnetic Hardwoods.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	6229 - Mixed lowland shrub	1.8	No	Unspecified	
6	11 - Low Intensity Urban	4.4	No	Unspecified	power line
11	6220 - Alder/willow	8.5	No	Unspecified	
17	11 - Low Intensity Urban	4.8	No	Unspecified	power line
23	6229 - Mixed lowland shrub	1.6	No	Unspecified	
25	3102 - Grass	3.5	No	Unspecified	gravel pit
31	6229 - Mixed lowland shrub	12.6	No	Unspecified	
33	11 - Low Intensity Urban	3.0	No	Unspecified	powerline



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.