



**Crystal Falls Forest Management Unit  
Compartment Review Presentation  
Compartment #175    Entry Year: 2014  
Compartment Acreage: 788    County: Iron**

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**Revision Date:** June 9, 2012

**Stand Examiner:** Cynthia Cooper

**Legal Description:** T41N, R33W, Sections 1-4,    T42N, R33W, Sections 29, 30, 32-36

**RMU (if applicable):**

**Management Goals:** Move towards regulating aspen age distribution. Evaluate new State ownership in section 33.

**Soil and Topography:** Soils are mostly sandy loams. The topography is fairly flat with some low lying areas.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Widely scattered State ownership surrounded by private homes and corporate timberlands.

**Unique, Natural Features:** Bordered on the south by the Brule River, Armstrong Creek in section 33.

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

**Special Management Designations or Considerations:** None

**Watershed and Fisheries Considerations:** Brule River and Armstrong Creek.

**Wildlife Habitat Considerations:** This compartment is six miles long and consists of the series of parcels along the Brule River. Protection of lowland hardwood types with adequate buffers and visual considerations along streams and the Brule River is important. Osprey use towers that were placed, by We-energies, adjacent to the powerline to discourage them from building nests on the power poles.

**Mineral Resource and Development Concerns and/or Restrictions:** Compartment 175: Section 2 - 4, T41N-R33W and Sections 28 and 33 - 36, T42N-R33W, Iron County

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 50 and 100 feet. The Precambrian Paint River Group, Dunn Creek Formation and Badwater Greenstone subcrop below the glacial drift. There is not a current economic use for these rocks. Abandoned iron mines are located six miles to the northeast. This area has not been previously leased for metallic exploration, but there may be potential. A gravel pit is located two miles to the east and there may be some potential. There is no economic oil and gas production in the UP.

**Vehicle Access:** Good.

**Survey Needs:** Corners will be needed in sections 32, 35 and 36.

**Recreational Facilities and Opportunities:** Armstrong Creek and the Brule River as well as a State Recreation Trail.

**Fire Protection:**

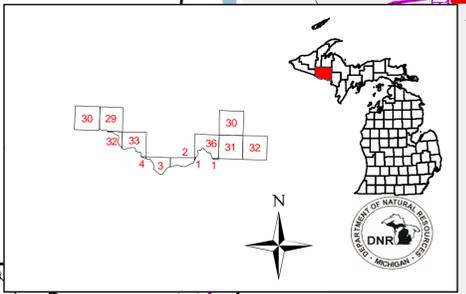
**Additional Compartment Information:**

- **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

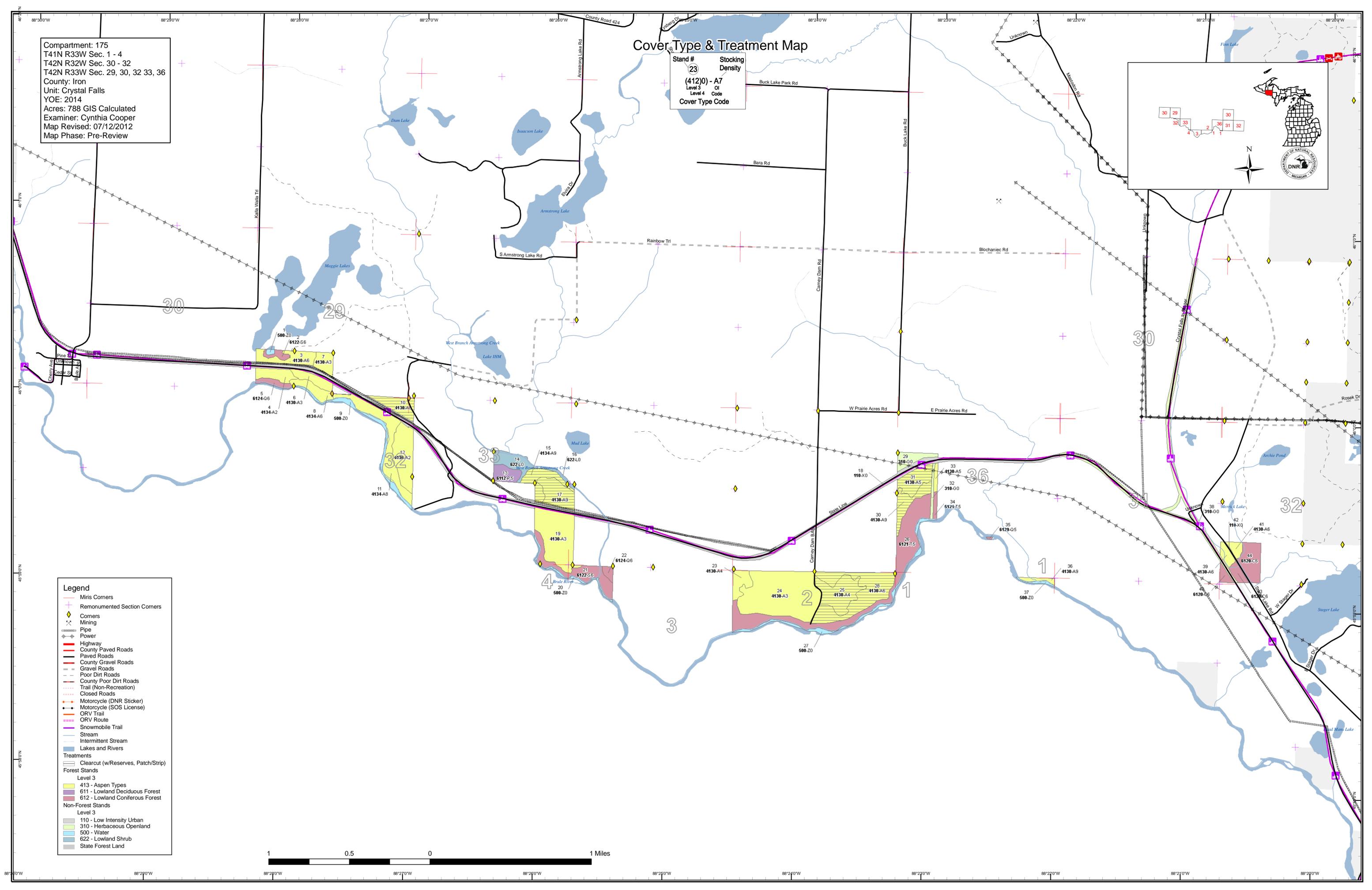
Compartment: 175  
 T41N R33W Sec. 1 - 4  
 T42N R32W Sec. 30 - 32  
 T42N R33W Sec. 29, 30, 32 33, 36  
 County: Iron  
 Unit: Crystal Falls  
 YOE: 2014  
 Acres: 788 GIS Calculated  
 Examiner: Cynthia Cooper  
 Map Revised: 07/12/2012  
 Map Phase: Pre-Review

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



- Legend**
- Miris Corners
  - Remonumented Section Corners
  - Corners
  - Mining
  - 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
  - Motorcycle (DNR Sticker)
  - Motorcycle (SOS License)
  - ORV Trail
  - ORV Route
  - Snowmobile Trail
  - Stream
  - Intermittent Stream
  - Lakes and Rivers
  - Treatments
  - Clearcut (w/Reserves, Patch/Strip)
  - Forest Stands
  - Level 3
  - 413 - Aspen Types
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
  - Non-Forest Stands
  - Level 3
  - 110 - Low Intensity Urban
  - 310 - Herbaceous Openland
  - 500 - Water
  - 622 - Lowland Shrub
  - State Forest Land

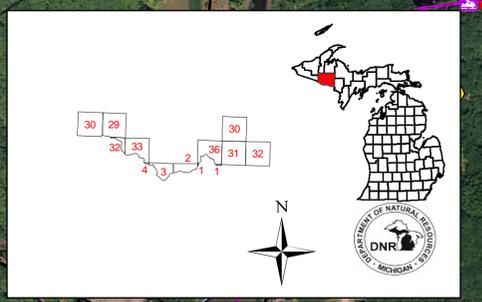
1 0.5 0 1 Miles



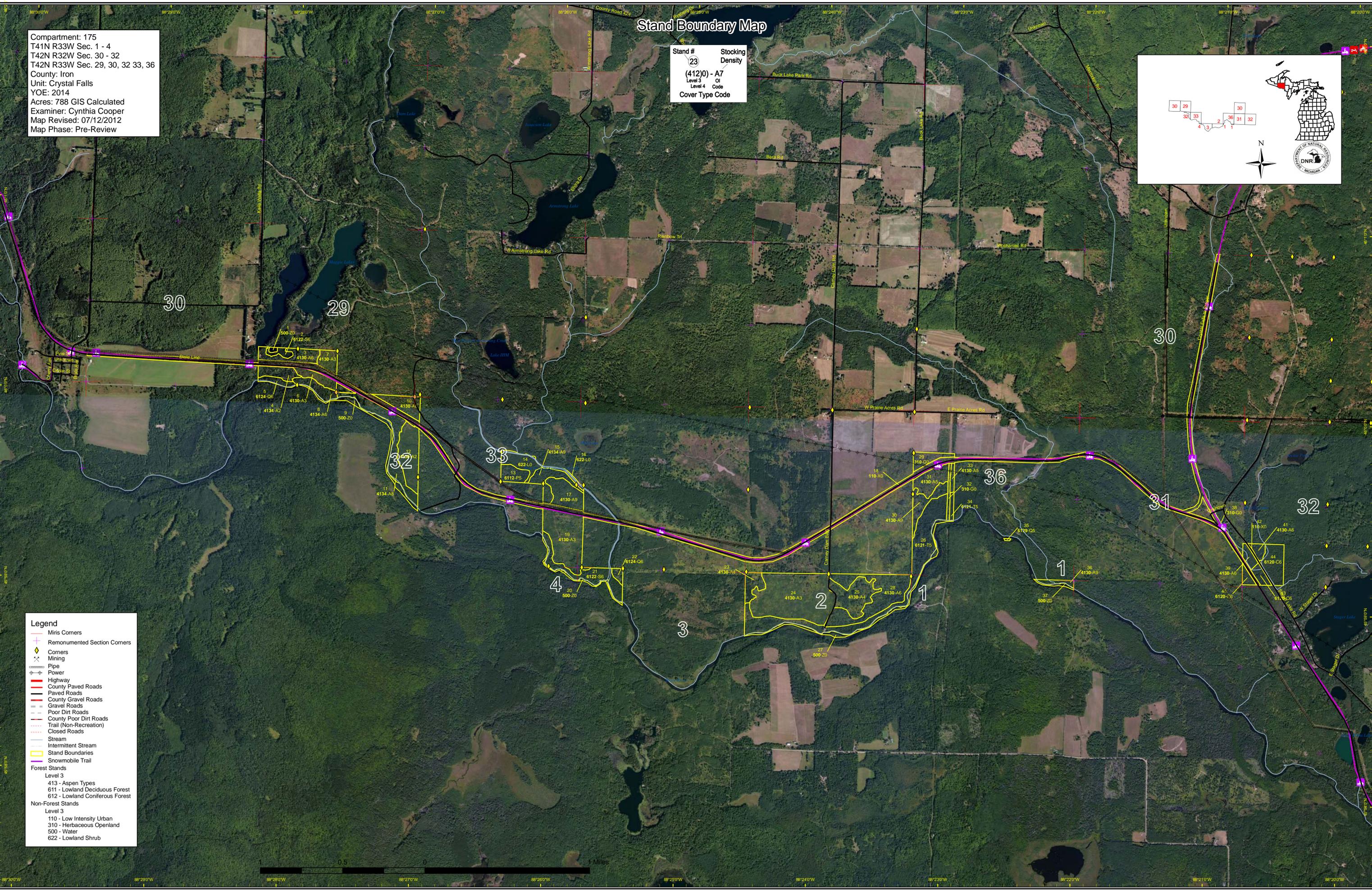
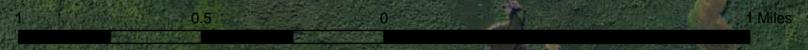
# Stand Boundary Map

Compartment: 175  
 T41N R33W Sec. 1 - 4  
 T42N R32W Sec. 30 - 32  
 T42N R33W Sec. 29, 30, 32 33, 36  
 County: Iron  
 Unit: Crystal Falls  
 YOY: 2014  
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Stand #  
 (412)0 - A7  
 Level 3  
 Level 4  
 Code  
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- Legend**
- Miris Corners
  - Remonumented Section Corners
  - Corners
  - Mining
  - Pipe
  - Power
  - Highway
  - County Paved Roads
  - Paved Roads
  - County Gravel Roads
  - Gravel Roads
  - Poor Dirt Roads
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  - Trail (Non-Recreation)
  - Closed Roads
  - Stream
  - Intermittent Stream
  - Stand Boundaries
  - Snowmobile Trail
  - Forest Stands**
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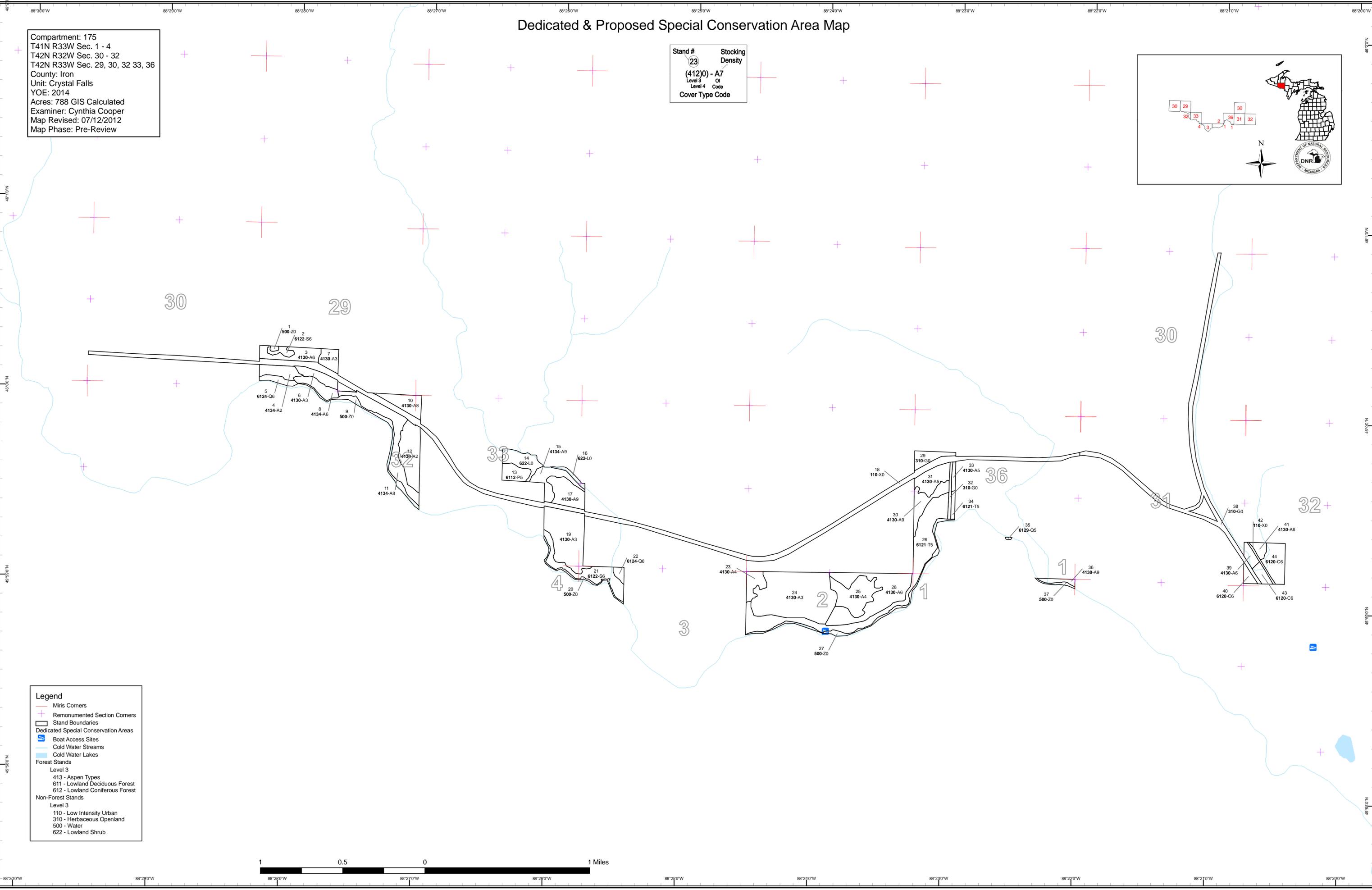
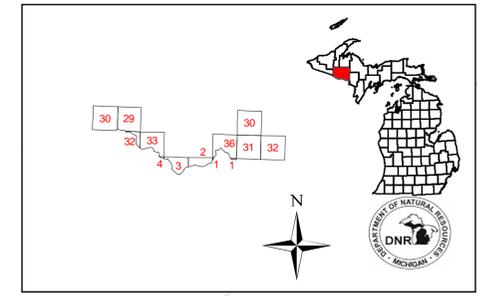
88°30'W 88°29'W 88°28'W 88°27'W 88°26'W 88°25'W 88°24'W 88°23'W 88°22'W 88°21'W 88°20'W

# Dedicated & Proposed Special Conservation Area Map

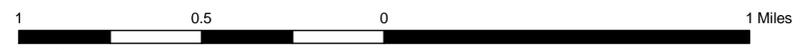
Compartment: 175  
 T41N R33W Sec. 1 - 4  
 T42N R32W Sec. 30 - 32  
 T42N R33W Sec. 29, 30, 32 33, 36  
 County: Iron  
 Unit: Crystal Falls  
 YOE: 2014  
 Acres: 788 GIS Calculated  
 Examiner: Cynthia Cooper  
 Map Revised: 07/12/2012  
 Map Phase: Pre-Review

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

Stocking  
 Density  
 01  
 Code



- Legend**
- Miris Corners
  - Remonumented Section Corners
  - Stand Boundaries
  - Dedicated Special Conservation Areas
  - Boat Access Sites
  - Cold Water Streams
  - Cold Water Lakes
  - Forest Stands
    - Level 3
      - 413 - Aspen Types
      - 611 - Lowland Deciduous Forest
      - 612 - Lowland Coniferous Forest
    - Non-Forest Stands
      - Level 3
        - 110 - Low Intensity Urban
        - 310 - Herbaceous Openland
        - 500 - Water
        - 622 - Lowland Shrub



**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	184	0	0	9	44	19	10	15	138	0	0	0	0	0	419
Cedar	0	0	0	0	0	0	0	0	26	0	0	0	0	0	26
Herbaceous Openland	62	0	0	0	0	0	0	0	0	0	0	0	0	0	62
Lowland Aspen/Balsam Poplar	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10
Lowland Conifers	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Lowland Shrub	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Lowland Spruce/Fir	0	0	0	0	4	0	0	0	24	0	0	0	0	0	27
Tamarack	0	0	0	0	0	0	0	0	72	0	0	0	0	0	72
Urban	116	0	0	0	0	0	0	0	0	0	0	0	0	0	116
Water	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30
<b>Total</b>	<b>410</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>57</b>	<b>19</b>	<b>10</b>	<b>15</b>	<b>269</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>788</b>



## Table 2 – Proposed Treatment Summaries

**Crystal Falls Mgt. Unit**  
**Year of Entry 2014**

**Compartment 175**  
**Total Compartment Acres: 788.4**

### Acres by Treatment Type

Commercial Harvest - 153	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>
<b>Aspen</b>	153	0	0	0	0	0	153
<b>Total</b>	153	0	0	0	0	0	153



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
10	12175010-Cut	14.0	4130 - Aspen	Medium Density Log	82		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clear cut retaining spruce/fir under 6" at the stump. Cut no pine if present.										
<u>Specs:</u>										
<u>Other Comments:</u>										
<u>Next Steps:</u> regeneration survey										
<u>Proposed Start Date:</u> 10/01/2013										
15	12175015-Cut	14.5	4134 - Aspen, Spruce/Fir	High Density Log	75		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clear cut retaining spruce/fir under 6" at the stump. Cut no pine, cherry or cedar if present.										
<u>Specs:</u>										
<u>Other Comments:</u>										
<u>Next Steps:</u> regeneration survey										
<u>Proposed Start Date:</u> 10/01/2013										
17	12175017-Cut	19.4	4130 - Aspen	High Density Log	54		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clear cut retaining spruce/fir under 6" on the stump. Cut no pine or cherry if present.										
<u>Specs:</u>										
<u>Other Comments:</u>										
<u>Next Steps:</u> regeneration survey										
<u>Proposed Start Date:</u> 10/01/2013										
28	12175028-Cut	48.4	4130 - Aspen	High Density Pole	82		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clear cut retaining spruce/fir under 6" on the stump. Cut no pine, cherry, hemlock or cedar if present.										
<u>Specs:</u>										
<u>Other Comments:</u>										
<u>Next Steps:</u> regeneration survey										
<u>Proposed Start Date:</u> 10/01/2013										
30	12175030-Cut	13.5	4130 - Aspen	High Density Log	82		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clearcut retaining spruce/fir under 6" on the stump. Cut no pine, cherry, hemlock or cedar if present.										
<u>Specs:</u>										
<u>Other Comments:</u>										
<u>Next Steps:</u> regeneration survey										
<u>Proposed Start Date:</u> 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
31	12175031-Cut	16.3	4130 - Aspen	Medium Density Pole	43		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription: Clear cut retaining cherry and hemlock if present.

Specs:

Other

Comments:

Next regeneration survey

Steps:

Proposed

Start Date: 10/01/2013

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**Total Treatment  
Acreage Proposed: 126.1**

Table 4 -- Treatments Prescribed with  
a Limiting FactorS  
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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
25 12175025-Cut	27.4	4130 - Aspen	Low Density Pole	82		Harvest	Clearcut	4130 - Aspen	Cmpt. Review Proposal

Prescription Clear cut retaining oak, pine, cedar and hemlock if present. Winter cut.

Specs:

Other

Comment:

Next regeneration survey

Steps:

Proposed

Start Date: 10/01/2013

Limiting Factor and No. Treatment Reason

5C: Delay treatment for age/size class diversity or exceptional site quality

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**Total Treatment  
Acreage Proposed: 27.4**

**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

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**Total Treatment Acreage Proposed: 31.4**



Stand	Crystal Falls Mgt. Unit			5 – Forested Stands		Compartment: 175	Year of Entry: 2014
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
2	6122 - Black Spruce	High Density Pole	3.7	40		Dense small lowland spruce with some tamarack	
3	4130 - Aspen	High Density Pole	14.5	44		East side of road better shape than area along power line. Stand needs another 10 years growth.	
4	4134 - Aspen, Spruce/Fir	Medium Density	10.4	7		New ownership. Estimated cut 7 years ago. Much residual spruce and fir in stand.	
5	6124 - Lowland Spruce-Fir	High Density Pole	5.0	82		Large spruce and fir bordering Brule River.	
6	4130 - Aspen	High Density Sapling	9.1	7			
7	4130 - Aspen	High Density Sapling	8.8	7			
8	4134 - Aspen, Spruce/Fir	High Density Pole	10.4	44			
10	4130 - Aspen	Medium Density Log	14.0	82			
11	4134 - Aspen, Spruce/Fir	Medium Density Log	31.5	82			
12	4130 - Aspen	Medium Density	27.0	7			
13	6112 - Lowland Aspen	Medium Density Pole	9.7	45			
15	4134 - Aspen, Spruce/Fir	High Density Log	14.5	75		Aspen poor, falling in spots.	
17	4130 - Aspen	High Density Log	19.4	54			
19	4130 - Aspen	High Density Sapling	46.6	7			
21	6122 - Black Spruce	High Density Pole	23.7	86		Buffer to Brule River and Armstrong Creek.	
22	6124 - Lowland Spruce-Fir	High Density Pole	3.0	82		Buffer to Armstrong Creek	
23	4130 - Aspen	Low Density Pole	9.7	60		Stand left as patch for Osprey platform. Sparse older aspen surrounded by grass.	
24	4130 - Aspen	High Density Sapling	82.1	7			

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## Crystal Falls Mgt. Unit

## 5 – Forested Stands

Compartment: 175  
Year of Entry: 2014

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	4130 - Aspen	Low Density Pole	27.4	82		Formerly called a grass stand. 50% clumps of older aspen, 50% aspen saps and raspberries.
26	6121 - Tamarack	Medium Density Pole	69.6	86		Lowland buffer to Brule River.
28	4130 - Aspen	High Density Pole	48.4	82		Small access site at end of road just outside of stand.
30	4130 - Aspen	High Density Log	13.5	82		
31	4130 - Aspen	Medium Density Pole	16.3	43		Fairly open and grassy.
33	4130 - Aspen	Medium Density Pole	2.5	43		Sparse aspen between powerline and private.
34	6121 - Tamarack	Medium Density Pole	2.5	86		Lowland strip between private and old powerline ROW.
35	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	0.3	80		Small island in Brule River.
36	4130 - Aspen	High Density Log	3.5	82		Small stand on edge of Brule River surrounded by private.
39	4130 - Aspen	High Density Pole	5.1	38		
40	6120 - Lowland Cedar	High Density Pole	3.6	87		Creek in stand is a trout stream.
41	4130 - Aspen	High Density Pole	4.2	38		
43	6120 - Lowland Cedar	High Density Pole	5.2	87		Trout creek in stand
44	6120 - Lowland Cedar	High Density Pole	17.5	87		Trout creek runs through stand.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	50 - Water	1.0	No	Unspecified	
9	50 - Water	11.7	No	Unspecified	BRULE RIVER
14	6229 - Mixed lowland shrub	13.8	No	Unspecified	
16	6229 - Mixed lowland shrub	2.7	No	Unspecified	
18	11 - Low Intensity Urban	114.2	Yes	High (NonForested)	
20	50 - Water	4.0	No	Unspecified	Brule River
27	50 - Water	11.9	No	Unspecified	BRULE RIVER
29	3102 - Grass	9.0	No	Unspecified	
32	3102 - Grass	3.4	N/A	Unspecified	GRASSY/SHRUBBY AREA , FORMER POWERLINE ?
37	50 - Water	1.8	No	Unspecified	BRULE RIVER
38	3102 - Grass	50.1	Yes	High (NonForested)	REC TRAIL
42	11 - Low Intensity Urban	2.0	No	Unspecified	STAGER LAKE ROAD



**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	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites.