



**Crystal Falls Forest Management Unit  
Compartment Review Presentation  
Compartment # 184 Entry Year: 2014  
Compartment Acreage: 559 (GIS calculated) County: Iron**

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**Revision Date:** 05/04/12

**Stand Examiner:** Ed Rice

**Legal Description:** T46N R 31W Section 6

**RMU (if applicable):**

**Management Goals:** Optimize sustainable timber production while enhancing and protecting wildlife habitat. Continue the hardwood stands on 20 year alternating cutting cycles, moving the stands toward regulation. Protect the riparian areas and transition zones during management activity.

**Soil and Topography:** Soils are generally silt loams with areas of muck soils adjacent to the river bottom. The topography ranges from short, fairly steep slopes to flat.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** With the small size of this compartment, it is contiguous in state ownership. Large blocks of private industrial forest (CFA) ownership border the compartment. There are also several smaller parcels of private non industrial land immediately adjacent. Active forest management has occurred and will continue within and surrounding the compartment. Deer hunting dominates the recreational use patterns.

**Unique, Natural Features:** None identified

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

**Special Management Designations or Considerations:** None identified

**Watershed and Fisheries Considerations:** The East Branch of the Fence River runs through the compartment. Management keeping aspen not readily accessible by beavers is desirable. This will generally involve 300 foot aspen buffers where appropriate.

**Wildlife Habitat Considerations:** : Deer numbers are low in the area and they do not overwinter. Due to the virtually pure northern hardwood stands in the compartment, upland conifers, namely hemlock should be encouraged. The small lowland conifer stands should be maintained and enhanced to continue providing good winter cover and travel corridors for various wildlife species. Cherry does exceptionally well and provides excellent soft mast for species, such as bears.

## **Mineral Resource and Development Concerns and/or Restrictions:**

**Vehicle Access:** Fair overall. There is a single two season road across the compartment. The remaining roads are winter logging roads only. Access into the Northwest end of the compartment is fair to poor due to unimproved roads. Access is non existent during spring breakup and winter.

**Survey Needs:** A corner is needed along the north line adjacent to private lands.

**Recreational Facilities and Opportunities:** None

**Fire Protection:** Much of the compartment is composed of northern hardwood timber type. Occurrences of fire starts are for the most part negligible. There is a small forest type of lowland conifers (black spruce) with heightened fire potential. Access for fire suppression in the more fire prone forest types is fair to good. There are multiple private camps immediately adjacent to the compartment.

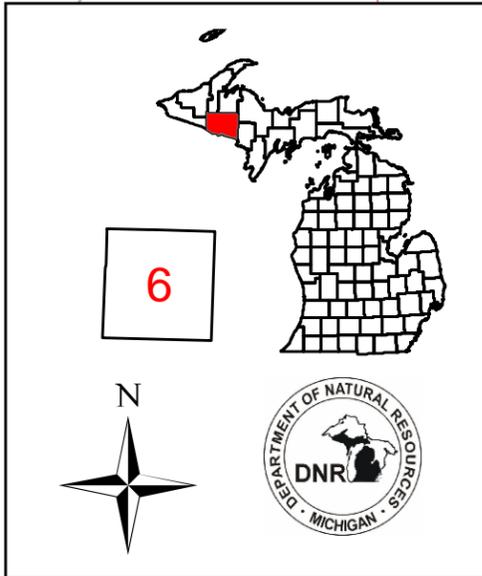
## **Additional Compartment Information:**

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
  - ◆ **Cover Type by Age Class**
  - ◆ **Cover Type by Management Objective**
  - ◆ **Compartment Volume Summary**
  - ◆ **Proposed Treatments – No Limiting Factors**
  - ◆ **Proposed Treatments – With Limiting Factors**
  
- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - ◆ **Base feature information, stand numbers, cover types**
  - ◆ **Proposed treatments**
  - ◆ **Proposed road access system**
  - ◆ **Suggested potential old growth**

# Cover Type & Treatment Map

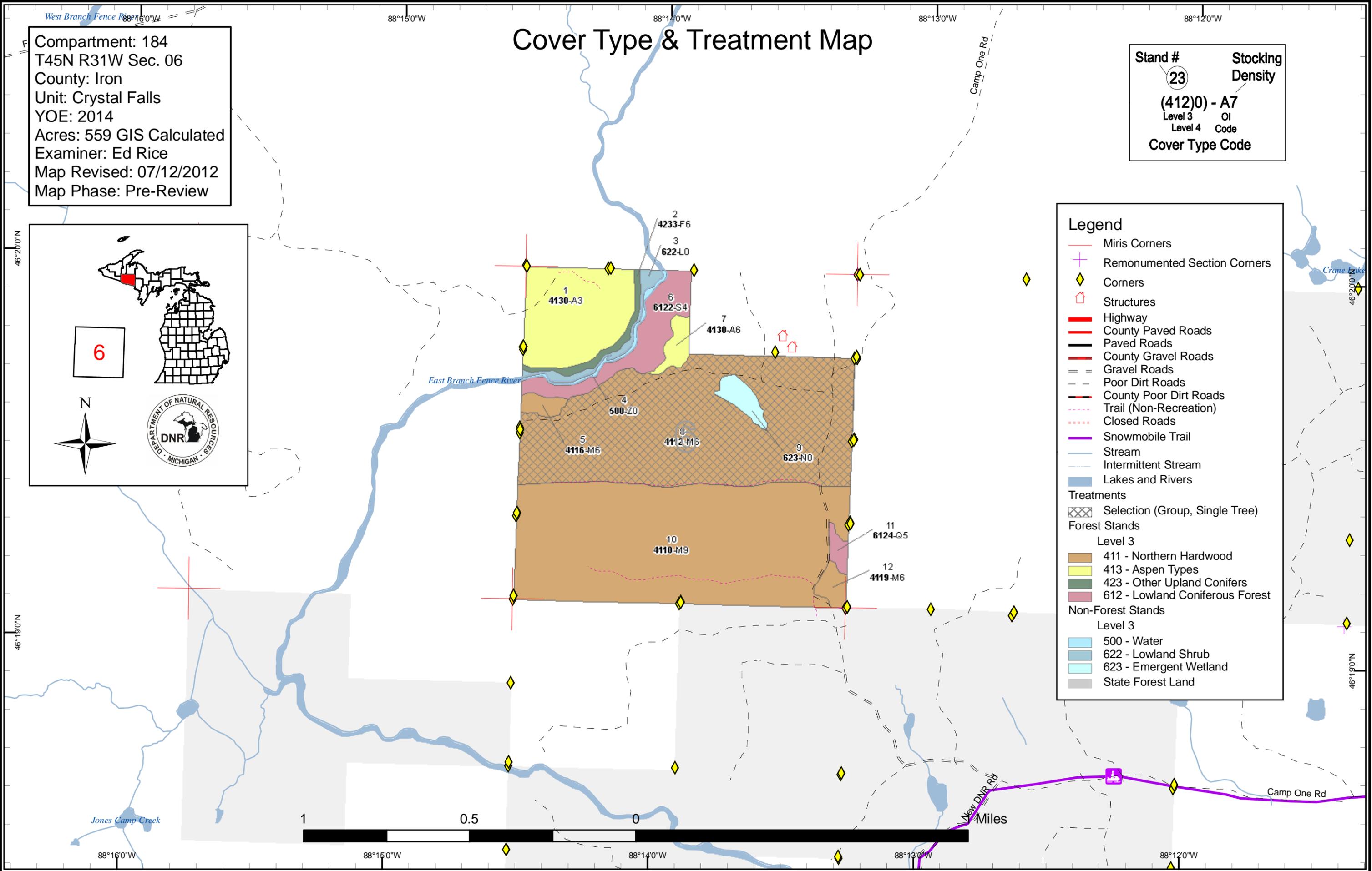
Compartment: 184  
 T45N R31W Sec. 06  
 County: Iron  
 Unit: Crystal Falls  
 YOE: 2014  
 Acres: 559 GIS Calculated  
 Examiner: Ed Rice  
 Map Revised: 07/12/2012  
 Map Phase: Pre-Review

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



### Legend

- Miris Corners
- Remonumented Section Corners
- Corners
- Structures
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Snowmobile Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- Treatments
  - Selection (Group, Single Tree)
- Forest Stands
  - Level 3
    - 411 - Northern Hardwood
    - 413 - Aspen Types
    - 423 - Other Upland Conifers
    - 612 - Lowland Coniferous Forest
  - Non-Forest Stands
    - Level 3
      - 500 - Water
      - 622 - Lowland Shrub
      - 623 - Emergent Wetland
      - State Forest Land



# Stand Boundary Map

Compartment: 184  
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 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

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 DEPARTMENT OF NATURAL RESOURCES  
 MICHIGAN

### Legend

- Miris Corners
- + Remonumented Section Corners
- ◆ Corners
- ⊠ Structures
- 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
- Snowmobile Trail
- Stand Boundaries

**Forest Stands**

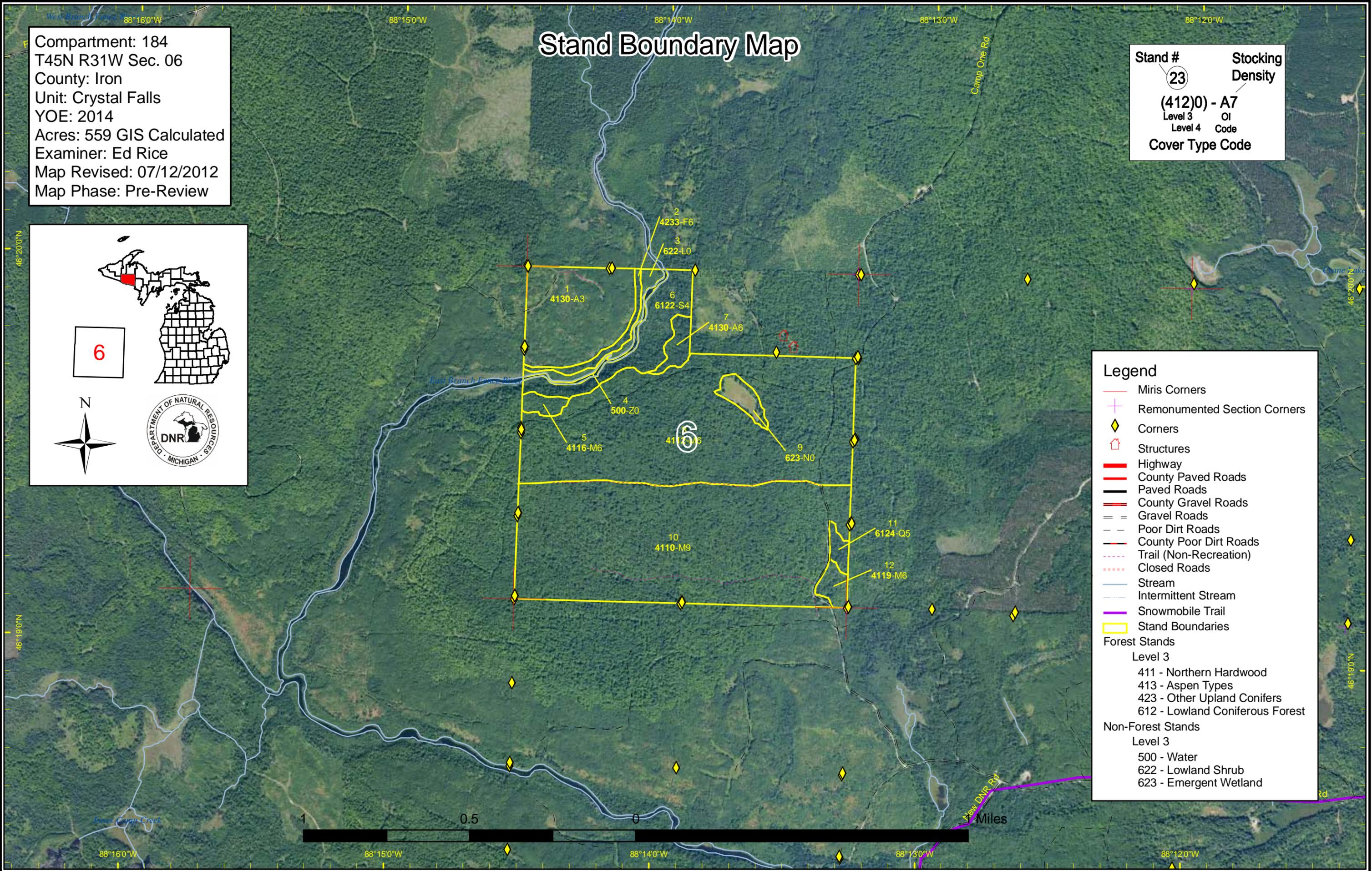
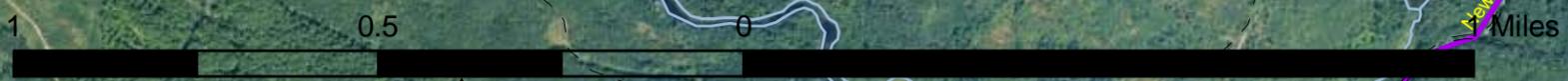
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest

**Non-Forest Stands**

Level 3

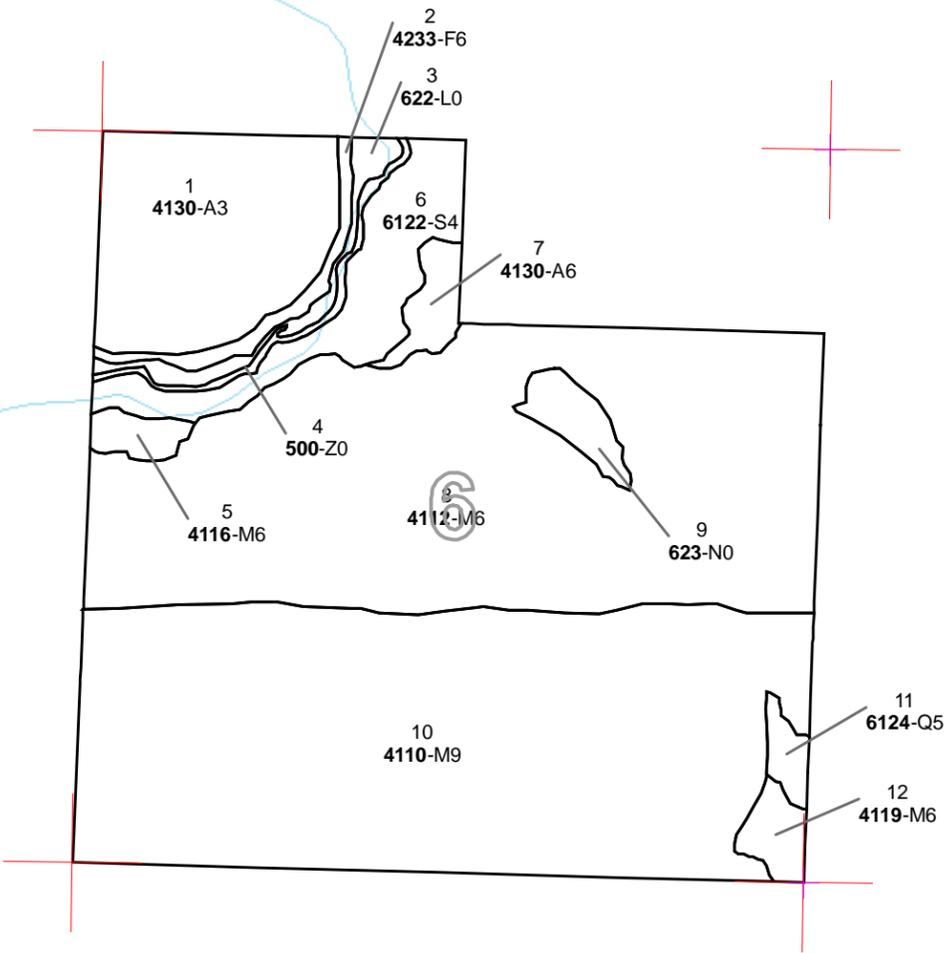
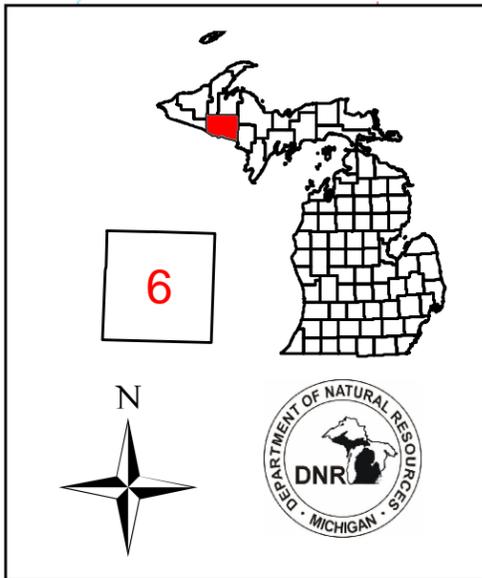
- 500 - Water
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# Dedicated & Proposed Special Conservation Area Map

Compartment: 184  
 T45N R31W Sec. 06  
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**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
- Forest Stands
  - 411 - Northern Hardwood
  - 413 - Aspen Types
  - 423 - Other Upland Conifers
  - 612 - Lowland Coniferous Forest
- Non-Forest Stands
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland



88°16'0"W      88°15'0"W      88°14'0"W      88°13'0"W      88°12'0"W

46°20'0"N

46°20'0"N

46°19'0"N

46°19'0"N

**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	0	56	0	0	7	0	0	0	0	0	0	0	0	0	63
Lowland Conifers	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Lowland Shrub	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Lowland Spruce/Fir	0	0	0	0	0	0	29	0	0	0	0	0	0	0	29
Marsh	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Northern Hardwood	0	0	0	0	0	0	6	433	0	0	0	0	0	0	439
Upland Spruce/Fir	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6
Water	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
<b>Total</b>	<b>18</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>35</b>	<b>433</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>559</b>



## Table 2 – Proposed Treatment Summaries

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

**Compartment 184**  
**Total Compartment Acres: 558.6**

### Acres by Treatment Type

Commercial Harvest - 207	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
Northern Hardwood	0	207	0	0	0	0	0	207
Total	0	207	0	0	0	0	0	207

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	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
8	12184008-Cut	207.4	4112 - Maple, Beech, Cherry Association	High Density Pole	75	111-140	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription: thin to 80 - 90 BA, release advanced maple regen. leave all conifers and oak if found. during thinning, skip over lower BA areas withing the cut.  
Specs: evaluate areas of elderberry closely before opening canopy further. MO is mixed hardwood.

Other Comments: scattered pockets of fully stocked b cherry sapls 2 - 6' tall but with blacknot prevalent. fair to good form on H maple - clear boles to 20 -30', sawt 1 1/2 - 2 log heights. elderberry present in areas of more open canopy. North of north road heavier to 2 - 3" saplings, lower in quality as stand transitions north to adjacent F6A7. Areas of good H maple regen 6 - 8' tall mixed with ironwood saplings. Scattered areas appearing to be lower ground, likely flooded during spring run off. great H maple regen E of Camp 1 Rd. 5 - 8' tall with scattered fir.

Next Steps:

Proposed Start Date: 10/01/2013

**Total Treatment  
Acreage Proposed: 207.4**

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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

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**Total Treatment Acreage Proposed: 31.4**



Stand	Crystal Falls Mgt. Unit			5 – Forested Stands		Compartment: 184 Year of Entry: 2014	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
1	4130 - Aspen	High Density Sapling	56.0	15		Aspen sapls 2 - 3" dbh, very widely scattered large w pine. small pockets of scattered tag alder	
2	42330 - Upland Fir	High Density Pole	6.3	45		30 - 50' buffer to Fence River	
5	4116 - Mixed N. Hardwood - Aspen	High Density Pole	4.7	75		thick fir understory. H maple saplings. High graded in 1969, diameter limit cut	
6	6122 - Black Spruce	Low Density Pole	28.7	61		lowland conifer along Fence River. many interspersed alder openings, very low cords/acre (6 cd/ac)	
7	4130 - Aspen	High Density Pole	6.6	42		aspen 4 - 8" dbh. thick hazel understory, scattered windthrow	
8	4112 - Maple, Beech, Cherry Association	High Density Pole	207.4	75	111-140	scattered pockets of fully stocked b cherry sapls 2 - 6' tall but with blacknot prevalent. fair to good form on H maple - clear boles to 20 -30', sawt 1 1/2 - 2 log heights. elderberry present in areas of more open canopy. North of north road heavier to 2 - 3" saplings, lower in quality as stand transitions north to adjacent F6A7. Areas of good H maple regen 6 - 8' tall mixed with ironwood saplings. Scattered areas appearing to be lower ground, likely flooded during spring run off. great H maple regen E of Camp 1 Rd. 5 - 8' tall with scattered fir.	
10	4110 - Sugar Maple Association	High Density Log	221.1	75	81-110	H maple sawt 12 -18" dbh. fair - good form, clear to 1 1/2 - 2 logs. scattered H maple sapls 1 - 3' tall. SW corner of stand holds small lower ground area with scattered upland cedar, likley flooded out during spring run off. pockets of elderberry along W and N ends. areas of lower stocking have raspberry/B cherry sapls.	
11	6124 - Lowland Spruce- Fir	Medium Density Pole	3.8	40		small acreage lowland conifer swamp	
12	4119 - Mixed Northern Hardwoods	High Density Pole	5.8	65	81-110	Prevalent to 5 - 6" dbh poles. poor R maple advanced sapl growth better quality. associated overmature aspen. fir falling out of stand. S end of stand slightly more higher ground - R maple, aspen, fir	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	6220 - Alder/willow	7.1	No	Unspecified	tag alder, willow, swamp grass along Fence River
4	50 - Water	3.9	No	Unspecified	
9	6233 - Wet Meadow	7.1	No	Unspecified	swamp grass meadow ringed with cedar, fir and spruce. flooded out in spring



**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
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**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.