



**Sault Forest Management Unit**  
**Compartment Review Presentation**  
**Compartment # 134**                      **Entry Year: 2012**  
**Compartment Acreage: 1,870**        **County: Mackinac**

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**Revision Date:** 7/6/2010

**Stand Examiner:** Derek Cross

**Legal Description:** T44N R7W Sections 20, 21, 29

**Identified Planning Goals ('Management Area' or 'RMU', if applicable):** Mackinac Mix

**Management Goals:** This compartment is located between Caffey Corners and Fiborn Quarry. The majority of the compartment consists of a vast mixed conifer swamp, with a couple small islands of higher ground. Approximately half of section 29 is upland consisting of aspen, productive red pine and spruce plantations, and a grassy opening complex. Much of the aspen has been cut during the last 10 to 20 years. Some aspen clones exist within the opening complex. The red pine and spruce stands need regular thinnings to promote growth and health this will need to be done in the next rotation. The small hardwood stand in the northwest corner of section 20 is part of a larger hardwood complex and should be treated with the adjacent compartments. A portable bridge will be needed to access this hardwood area.

**Soil and Topography:** Upland areas are level to slightly rolling consisting of Springlake loamy coarse sand. The associated soils on the upland islands within the swamp are Crowell sand and Paquin sand. The lowland swamps and bogs consist of Markey and Carbondale mucks, and Dawson and Loxley peats. The transitional hardwood stand is slightly rolling and consists of Markey-Spot-Finch complex.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** The majority of the compartment is state owned with two private inholdings. Michigan Karst Conservancy owns the old Fiborn Quarry to the north. Some private camps and residences are to the south. The remaining surrounding ownership is state lands.

**Unique, Natural Features:** Fiborn Quarry lies adjacent to the north (and the NENE section 21). This area consists of karst features.

**Archeological, Historical, and Cultural Features:** Lies adjacent to Fiborn Quarry and the old town of Fiborn.

**Special Management Designations or Considerations:** Harvesting operations may be limited to non-winter months along the snowmobile trail. ORV trails will be signed and kept clear daily during harvesting operations.

**Watershed and Fisheries Considerations:** Fisheries Values, None.

**Wildlife Habitat Considerations:** The compartment lies in St. Ignace sub-subsection in northern Mackinac County. The compartment lies adjacent to a deer yard stands are not included in the yard. The northern part of the compartment is part of a large swamp complex comprised of mixed conifer with a few smaller islands of higher ground and a bit of northern hardwoods. The southern portion has a few scattered plantations, and a mixture of grassy openings and long narrow stand of Mackinac mix. Harvested stands will maintain species

diversity to aid in meeting wildlife objectives and a component of mature trees will be retained for cavity, food and nesting sources, and structural diversity. The swamps in this compartment are part of a larger complex in the area and care should be taken to maintain hydrological regimes across compartments.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of peat and muck. There is insufficient data to determine the glacial drift thickness, but bedrock is near the surface. The Silurian Manistique and Burnt Bluff Groups subcrop below the thin glacial drift. The Burnt Bluff is quarried for stone/limestone just to the northeast of the compartment (Fiborn quarry). The nearest gravel pit is one mile to the south. There appears to be gravel potential in Section 29. There is no economic oil and gas production in the UP, currently.

**Vehicle Access:** Access is limited to Fiborn Quarry Road, a fair to good county road along the east side of section 21; and Fisher Road, which is a county road east of the compartment to H-40 and a good DNR road through the compartment, accessing section 29. Fisher Road is also used as part of the snowmobile trail during winter months.

**Survey Needs:** None needed

**Recreational Facilities and Opportunities:** The snowmobile trail # 2 follows the Fisher Road, and the Newberry – Rexton motorcycle trail winds through the upland portions of Section 29. The snowmobile and motorcycle trails run through the upland area of the compartment. Primarily a deer and grouse hunting area. Good wildlife viewing area.

**Fire Protection:** This is a low fire area due to the lowland swamps.

**Additional Compartment Information:** A portable bridge spanning the Hendrie River will be needed to access hardwood in northwest corner.

➤ **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**

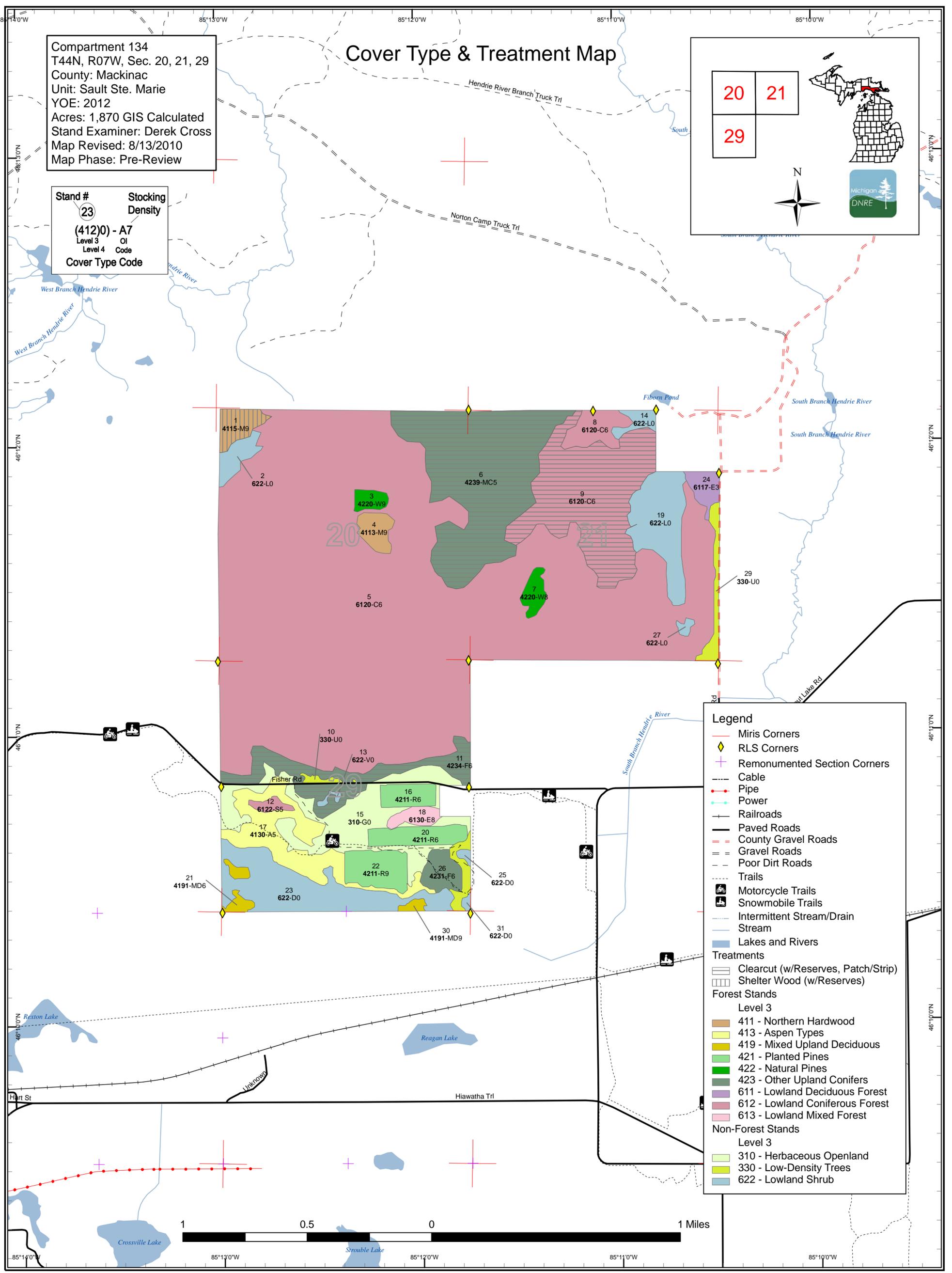
➤ **The following information is displayed, where pertinent, on the attached compartment maps:**

- ◆ **Base feature information, stand boundaries, cover types, and numbers**
- ◆ **Proposed treatments**
- ◆ **Details on the road access system**

# Cover Type & Treatment Map

Compartment 134  
 T44N, R07W, Sec. 20, 21, 29  
 County: Mackinac  
 Unit: Sault Ste. Marie  
 YOY: 2012  
 Acres: 1,870 GIS Calculated  
 Stand Examiner: Derek Cross  
 Map Revised: 8/13/2010  
 Map Phase: Pre-Review

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



### Legend

- Miris Corners
- RLS Corners
- Remonumented Section Corners
- Cable
- Pipe
- Power
- Railroads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Trails
- Motorcycle Trails
- Snowmobile Trails
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

### Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Shelter Wood (w/Reserves)

### Forest Stands

Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

### Non-Forest Stands

Level 3

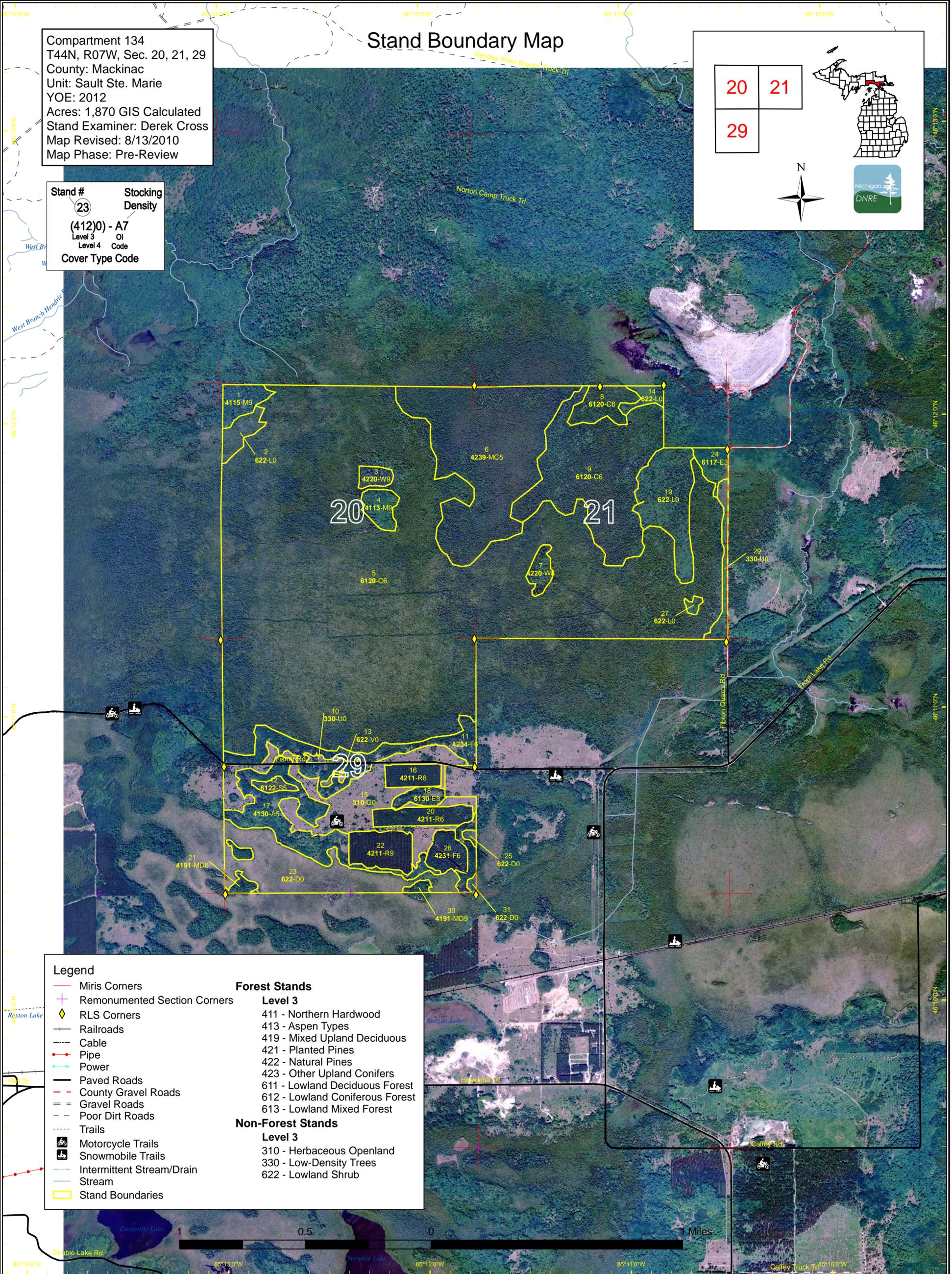
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub



# Stand Boundary Map

Compartment 134  
 T44N, R07W, Sec. 20, 21, 29  
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 YOY: 2012  
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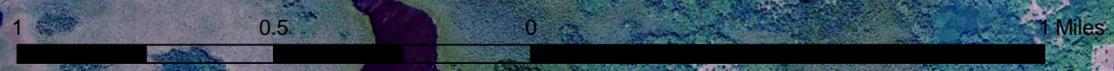
**Stand #**  
 23  
**Stocking Density**  
 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**



Legend	
	Miris Corners
	Remonumented Section Corners
	RLS Corners
	Railroads
	Cable
	Pipe
	Power
	Paved Roads
	County Gravel Roads
	Gravel Roads
	Poor Dirt Roads
	Trails
	Motorcycle Trails
	Snowmobile Trails
	Intermittent Stream/Drain
	Stream
	Stand Boundaries

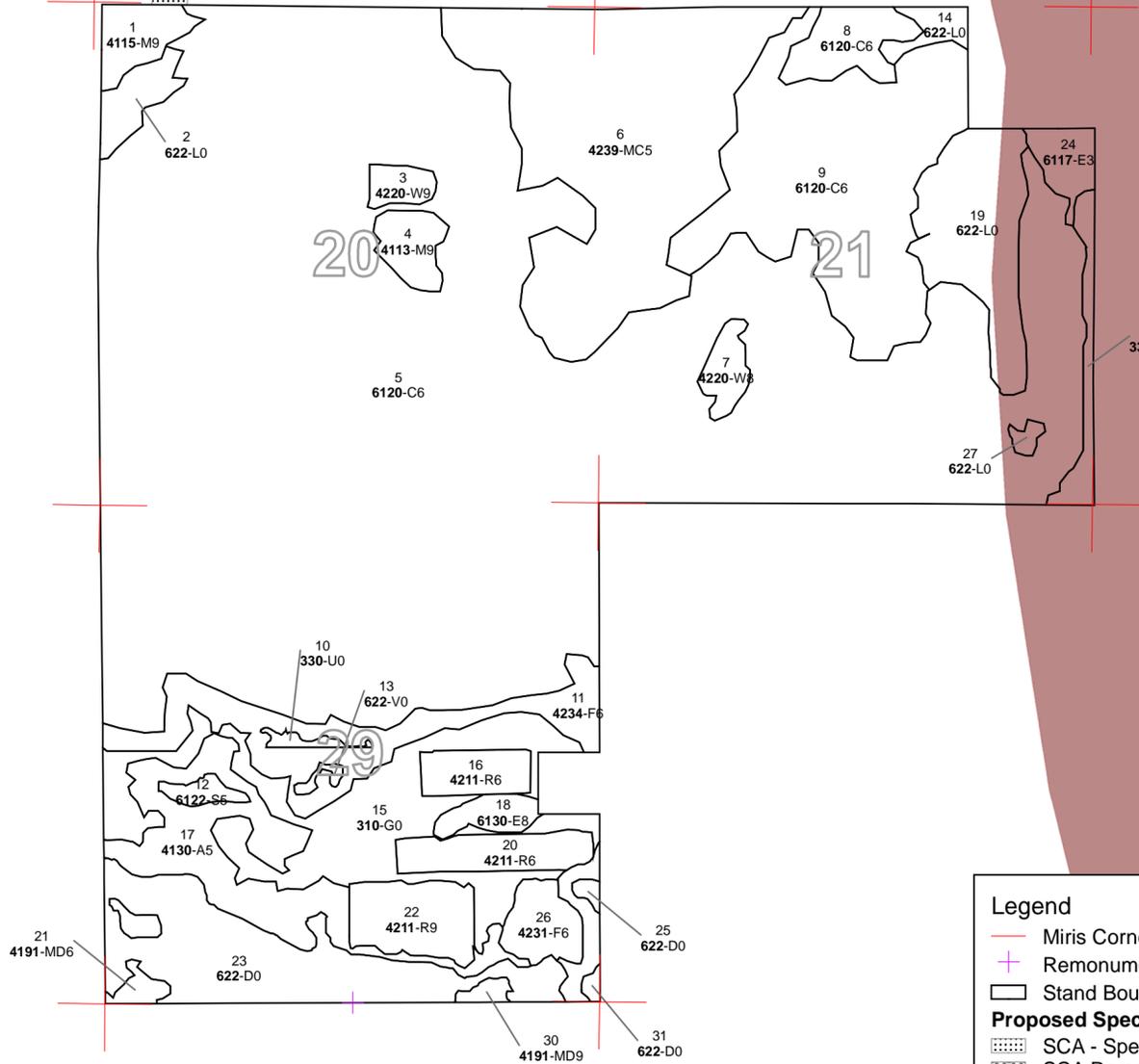
Forest Stands	
<b>Level 3</b>	
411	- Northern Hardwood
413	- Aspen Types
419	- Mixed Upland Deciduous
421	- Planted Pines
422	- Natural Pines
423	- Other Upland Conifers
611	- Lowland Deciduous Forest
612	- Lowland Coniferous Forest
613	- Lowland Mixed Forest
Non-Forest Stands	
<b>Level 3</b>	
310	- Herbaceous Openland
330	- Low-Density Trees
622	- Lowland Shrub



# Dedicated & Proposed Special Conservation Area Map

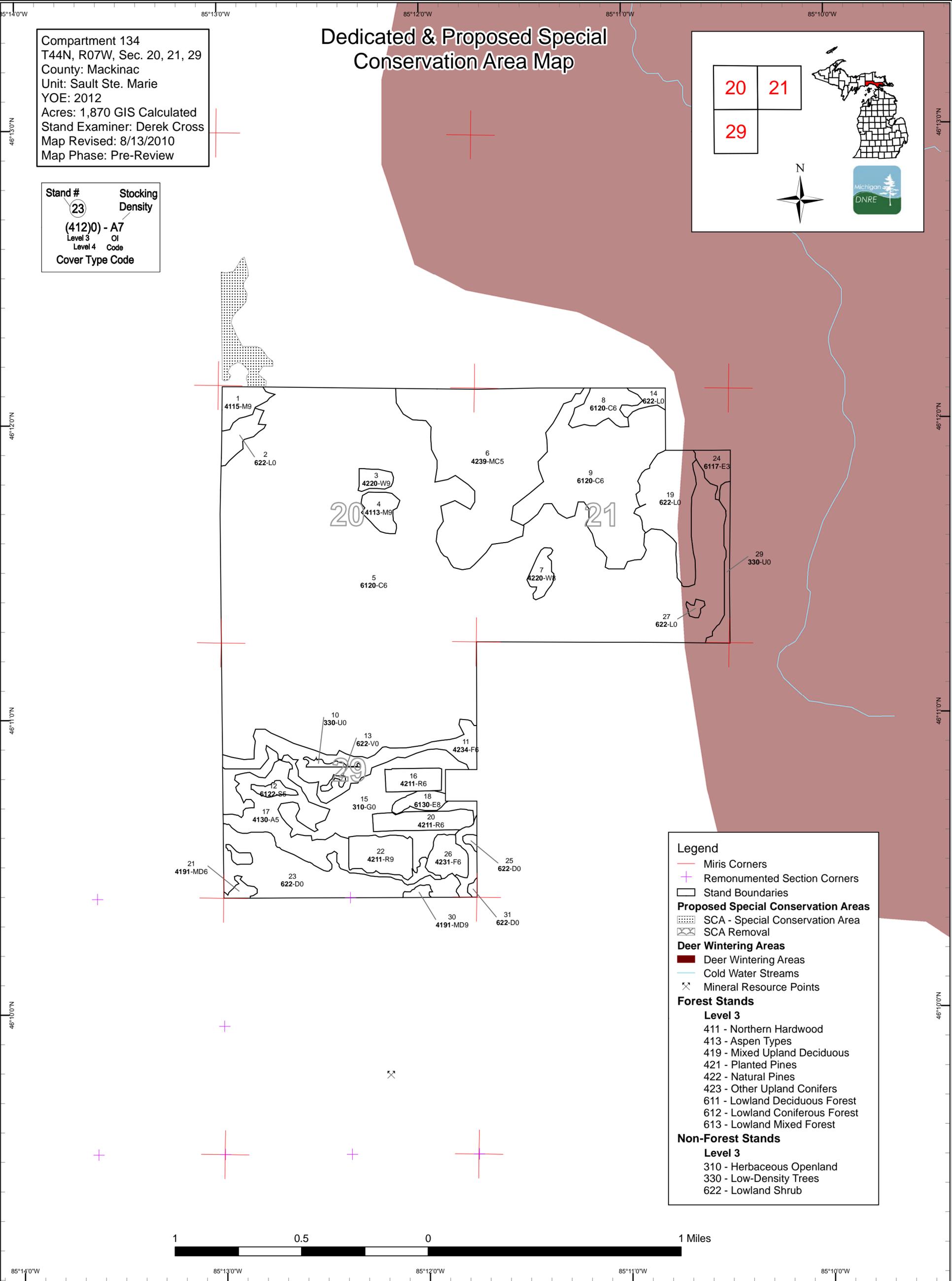
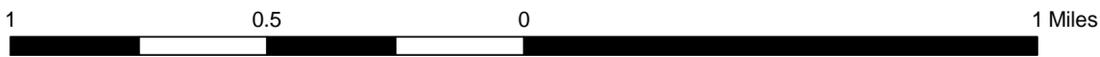
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 Map Revised: 8/13/2010  
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**Stand #**      **Stocking Density**  
 (23)  
**(412)0) - A7**  
 Level 3      OI  
 Level 4      Code  
**Cover Type Code**



**Legend**

- Miris Corners
- ⊕ Remonumented Section Corners
- Stand Boundaries
- Proposed Special Conservation Areas**
- ▨ SCA - Special Conservation Area
- ▩ SCA Removal
- Deer Wintering Areas**
- Deer Wintering Areas
- Cold Water Streams
- ⊗ Mineral Resource Points
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
- 413 - Aspen Types
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- 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**

Data updated before 2:00 PM



	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	0	58	0	0	0	0	0	0	0	0	0	0	0	58
Bog	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Cedar	0	0	0	0	0	0	0	0	0	0	1044	0	0	152	0	1196
Herbaceous Openland	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83
Low-Density Trees	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Lowland Deciduous	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	10
Lowland Mixed Forest	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8
Lowland Shrub	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70
Lowland Spruce/Fir	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
Mixed Upland Deciduous	0	0	0	0	0	0	0	7	3	0	0	0	0	0	0	9
Northern Hardwood	0	0	0	0	0	0	0	13	11	0	0	0	0	0	0	25
Red Pine	0	0	0	31	0	23	0	0	0	0	0	0	0	0	0	54
Treed Bog	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77
Upland Conifers	0	0	0	0	0	0	0	0	0	171	0	0	0	0	0	171
Upland Spruce/Fir	0	0	0	0	0	0	14	52	0	0	0	0	0	0	0	65
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	15
<b>Total</b>	<b>254</b>	<b>0</b>	<b>0</b>	<b>99</b>	<b>0</b>	<b>23</b>	<b>22</b>	<b>56</b>	<b>20</b>	<b>185</b>	<b>1044</b>	<b>0</b>	<b>0</b>	<b>167</b>	<b>0</b>	<b>1870</b>



**Sault Ste. Marie Mgt. Unit**  
**Year of Entry 2012**

**Table 2 – Proposed Treatment Summaries**

*Data updated before 2:00 PM*

**Compartment 134**  
**Total Compartment Acres: 1870**

**Acres by Treatment Type**

Commercial Harvest - 370    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
<b>Cedar</b>	134	0	0	0	0	0	<b>134</b>
<b>Northern Hardwood</b>	0	0	0	13	0	0	<b>13</b>
<b>Upland Conifers</b>	171	0	0	0	0	0	<b>171</b>
<b>Upland Spruce/Fir</b>	52	0	0	0	0	0	<b>52</b>
<b>Total</b>	<b>356</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>370</b>



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1 45134001-Cut	13.5	4115 - Y.Birch, Hemlock NH	High Density Log	74	Harvest	Shelterwood	Y.Birch, Hemlock NH	Cmpt. Review Proposal
<p><u>Prescription</u> Reduce basal area to 50 to promote yellow birch and hemlock regeneration. Designate 1 hemlock per 5 acres to be felled as a nurse log for hemlock regeneration.</p> <p><u>Specs:</u></p> <p><u>Other</u> cut with adjacent compartment.</p> <p><u>Comments:</u></p> <p><u>Next</u> Check for regeneration in 4-5 years. Acceptable regeneration will include red maple, yellow birch, hemlock, white pine, black cherry, sugar maple, aspen, ash, beech, and balsam fir.</p> <p><u>Steps:</u></p>								

11 45134011-Cut	51.6	42340 - Upland Spruce/Fir	High Density Pole	62	Harvest	Clearcut with Reserves	Upland Spruce/Fir	Cmpt. Review Proposal
<p><u>Prescription</u> Clearcur stand leaving retention pockets scattered throughout.</p> <p><u>Specs:</u></p> <p><u>Other</u></p> <p><u>Comments:</u></p> <p><u>Next</u> Check for regeneration in 4-5 years. Acceptable regeneration will include red maple, balsam, fir, spruce, cedar, paper birch, yellow birch, white pine, hemlock, and aspen.</p> <p><u>Steps:</u></p>								

**Total Treatment  
Acreage Proposed: 65.1**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6 45134006-Cut	170.9	42390 - Mixed Non-Pine Upland Conifers	Medium Density Pole	89	Harvest	Patch or Strip Clearcut	Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal

Prescription strip clearcuts allowing for equipment maneuverability and limited windthrow. Leaving cedar where present.  
Specs:

Other Research has shown that creating strips 4 chains wide running east and west promotes optimal regeneration.  
Comment:

Next check for regeneration.  
Steps:

Limiting Factor and No 2F: Too wet  
Treatment Reason

9 45134009-Cut	133.9	6120 - Lowland Cedar	High Density Pole	155	Harvest	Patch or Strip Clearcut	Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Strip clearcuts allowing for operation of equipment while limiting widthrow.  
Specs:

Other Research has shown that creating strips 4 chains wide running east and west promotes optimal regeneration. A cedar seed tree should be left every chain.  
Comment:

Next check for regeneration.  
Steps:

Limiting Factor and No 2F: Too wet  
Treatment Reason

**Total Treatment  
Acreage Proposed: 304.8**

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Sault Ste. Marie Mgt. Unit

**5 – Forested Stands**  
Data updated before 2:00 PM

Compartment: 134  
Year of Entry: 2012



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4115 - Y.Birch, Hemlock NH	High Density Log	13.4	74	171-200	A temporary bridge and culvert will need to be installed to facilitate harvest. A road goes directly through the stand. Some large red maples are starting to die. There are some dense patches of red maple seedlings that are under 3 ft tall. This stand crosses the stand boundaries. Recommend harvesting the entire stand while a temporary bridge is in place.
3	42200 - Natural White Pine	High Density Log	6.3	120	141-170	Old growth white pine and hemlock with a small deciduous contingent. Increment borer wasn't long enough to reach core of tree.
4	4113 - R.Maple, Conifer	High Density Log	11.4	85	141-170	Red Maple island could be thinned accessible. Hemlock and white Pine Concentrated in pockets. Vernal pond on interior most likely seasonal water level 2ft or less some cedar also present. Stand is located in the middle of an immense swamp and access would be impracticable.
5	6120 - Lowland Cedar	High Density Pole	1043.9	97		Cedar mixed with scattered pockets of tamarack and black spruce. There was a high water table present throughout this stand. There is no reason for any sane person to ever visit here again.
6	42390 - Mixed Non- Pine Upland Conifers	Medium Density Pole	170.9	89		Standing water. Stand entrance requires Hummock Hopping. Also observed an occasional Black Cherry Sapling Growing out of larger hummocks.
7	42200 - Natural White Pine	Medium Density Log	8.4	120	141-170	This stand is a small upland island in the middle of a large swamp. Large white pine with red maple and upland black spruce underneath. Increment borer not long enough to reach core.
8	6120 - Lowland Cedar	High Density Pole	18.3	140		Lots of Standing water. Access would require an extensive ice road.
9	6120 - Lowland Cedar	High Density Pole	133.9	155		Cedar mixed with Tamarack and Black spruce. lots of standing water present.
11	42340 - Upland Spruce/Fir	High Density Pole	51.6	62		Spruce and fir with mixed hardwoods following a steep ridge line that drops off into cedar stand. If this stand is harvested erosion could be a factor.
12	6122 - Black Spruce	Medium Density Pole	4.3	63		Black spruce bog with moss and labrador tea covering the ground.
16	42110 - Planted Red Pine	High Density Pole	12.6	26	200+	Red Pine plantation 1-2 sticks third row thin next rotation.
17	4130 - Aspen	Medium Density Pole	58.0	27		Young aspen stand with scattered spruce, fir and the occasional white pine. No treatments are needed at this time.
18	6130 - Fir, Aspen, Maple	Medium Density Log	8.1	51		Forested area that surrounds a small wetland leave to shelter wetland.

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Sault Ste. Marie Mgt. Unit

**5 – Forested Stands**  
Data updated before 2:00 PM

Compartment: 134  
Year of Entry: 2012



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
<b>20</b>	42110 - Planted Red Pine	High Density Pole	18.3	26	200+	Red Pine plantation 1-2 sticks third row thin next rotation.
<b>21</b>	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	6.5	79	111-140	Mackinac Mix harvestable if ice road is Built would have to cross an Area of Bog Containirng sensitive species (pitcher plant).
<b>22</b>	42110 - Planted Red Pine	High Density Log	23.3	49	111-140	This stand was thinned last rotation there is some slash on the ground scattered throughout the stand.
<b>24</b>	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	10.3	24		aspen reger wet Ground
<b>26</b>	42310 - Planted Spruce	High Density Pole	13.7	50	200+	This stand is currently under contract for a timber sale, Bruiser spruce mix2.
<b>30</b>	4191 - Mixed Upland Deciduous with Conifer	High Density Log	2.6	80	171-200	Mature mackinac mix clearcut to Regenerate. Stand continues to the south cut entire stand if possible. Stand is surrounded by black spruce bog making access difficult. Low volumes and quality.



Stand	Cover Type	Acres	Gen Cmts:
2	6229 - Mixed lowland shrub	11.4	alder marshy some cedar black spruce and white pine
10	3303 - Mixed Low Density Trees	2.4	Grass opening with Scattered Spruce and aspen a Few cherry present
13	6225 - Bog	1.6	New stand added. Small bog with spotty tamarack Surrounded By young aspen stand
14	6220 - Alder/willow	6.8	
15	3105 - Mixed Upland Herbaceous	83.0	Area is open grassland with Scattered cherry trees spruce And Clumps of young aspen beginning to Colonize throughout
19	6220 - Alder/willow	49.8	Tag Alder with scattered trees
23	6224 - Treed Bog	74.0	Black spruce Bog No Merchantable trees Also observed patches of pitcher plant
25	6224 - Treed Bog	1.5	Black spruce Bog w/ Labrador tea, moss, and Alder pockets dispersed through out.
27	6220 - Alder/willow	2.1	Small alder pocket surrounded by cedar.
28	3303 - Mixed Low Density Trees	8.0	Stand is under Contract Bruiser Spruce mix 2
29	3303 - Mixed Low Density Trees	11.8	Stand is mostly tag alder with a smattering of coniferous and decidous trees intermixed.
31	6224 - Treed Bog	1.3	mix of balsam fir, Tamarack, red maple, white pine, Alder and paper birch.



**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.

*Data updated before 2:00 PM*

<b>Stand</b>	<b>SCA Type</b>	<b>SCA Name</b>	<b>Acres</b>	<b>Comments</b>
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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.

*Data updated before 2:00 PM*

ERA = Ecological Reference Area  
 HCVA = High Conservation Value Area  
 SCA = Special Conservation Area

<b>Conservation Area</b>	<b>Type</b>	<b>Description</b>
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.