



**Baraga Forest Management Unit  
Compartment Review Presentation  
Compartment #40                      Entry Year: 2013  
Compartment Acreage: 2,387    County: Houghton**

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**Revision Date:** 7/13/2011

**Stand Examiner:** Jason Mittlestat

**Legal Description:** T52N, R35W Sections 28, 29, 33, 34, 35

**Identified Planning Goals ('Management Area' or 'RMU' # if applicable):**

**Management Goals:** To maintain a healthy; sustainable forest with special consideration to wildlife habitat, fisheries habitat, and recreational needs.

**Soil and Topography:** The terrain is rolling to hilly with steep gullies. Lowland soils are Lupton and Cathro mucks. Upland soils are Arnheim silt loams, Munising-Yalmer complex, and Munising-Alcona-Liminga sands and loams.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Lands to the north and west are primarily industrial forest while the compartment is bordered by state land to the south and northeast, compartments 38, 41 and 42. To the east are small private lands.

**Unique, Natural Features:** None identified.

**Archeological, Historical, and Cultural Features:** The Donken-Tapiola road was a logging railroad grade.

**Special Management Designations or Considerations:** Central Houghton

**Watershed and Fisheries Considerations:** This area is in the heart of the Otter River Watershed. The South Bear Creek and several small, cold water tributaries to the Otter River originate or flow through this compartment.

**Wildlife Habitat Considerations:** Work to expand long lived conifer cover while maintaining current coverage. This area is part of a large block of public and commercial forest lands used heavily by the public for hunting recreation.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of coarse and fine-textured glacial till, with an ancient shoreline in this area. There is insufficient data to determine the glacial drift thickness. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. There is not a current economic use for the Jacobsville, but it was used as a building stone in the past. The nearest gravel pit is located three miles to the northeast. There is no economic oil and gas production in the UP.

**Vehicle Access:** The Donken-Tapiola, Otter River/Hazel Swamp, and Horoscope roads are Department roads. Parts of the Lake Gerald Road also are. Most of this compartment is pre-roaded from past management.

**Survey Needs:** Some survey work will be needed for management activities.

**Recreational Facilities and Opportunities:** This area receives year around recreation due to its close proximity to the Tapiola / Pelkie area and encompassing several road systems. The Alston snowmobile trail (#109) crosses the southern end of the compartment.

**Fire Protection:** This is not a fire prone area.

**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**

**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 +	Uneven Age	
Aspen	0	0	7	58	13	0	0	0	0	0	0	0	0	0	0	78
Lowland Conifers	0	0	0	0	0	0	0	4	0	0	0	0	0	0	10	14
Lowland Deciduous	0	0	0	0	0	0	18	0	0	0	0	0	0	0	77	95
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	127
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2015	2015
Urban	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Water	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
<b>Total</b>	<b>17</b>	<b>0</b>	<b>7</b>	<b>58</b>	<b>13</b>	<b>0</b>	<b>18</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2230</b>	<b>2346</b>



## Table 2 – Proposed Treatment Summaries

**Baraga Mgt. Unit**  
**Year of Entry 2013**

**Compartment 040**  
**Total Compartment Acres: 2346**

### Acres by Treatment Type

Commercial Harvest - 1251	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
Lowland Conifers	4	0	0	0	0	0	0	4
Mixed Upland Deciduous	17	0	0	0	0	0	0	17
Northern Hardwood	0	1230	0	0	0	0	0	1230
Total	21	1230	0	0	0	0	0	1251



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	11040001-Cut	137.8	4112 - Maple, Beech, Cherry Association	High Density Log	99	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Thin stand down to 70-90 square feet of Basal Area using the single tree selection method. Follow marking guidelines as outlined in the</p> <p><u>Specs:</u> "Complete Marker". Favor mesic conifers White Pine and Hemlock as well as Hard Mast producing species such as Northern Red Oak. Protect hemlock inclusions from harvest damage while marking to promote hemlock expansion.</p> <p><u>Other</u> Area may vary with topo issues, some steep terrain along the west and south edges.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
2	11040002-Cut	101.0	4112 - Maple, Beech, Cherry Association	High Density Log	99	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Thin stand down to 70-90 square feet of Basal Area using the single tree selection method. Follow marking guidelines as outlined in the</p> <p><u>Specs:</u> "Complete Marker". Favor mesic conifers White Pine and Hemlock as well as Hard Mast producing species such as Northern Red Oak. Protect hemlock inclusions from harvest damage while marking to promote hemlock expansion.</p> <p><u>Other</u> Topo will influence acreage.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
4	11040004-Cut	260.3	4115 - Y.Birch, Hemlock NH	High Density Log	99	Harvest	Single Tree Selection	4115 - Y.Birch, Hemlock NH	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Thin stand down to 70-90 square feet of Basal Area using the single tree selection method. Follow marking guidelines as outlined in the</p> <p><u>Specs:</u> "Complete Marker". Favor mesic conifers White Pine and Hemlock as well as Hard Mast producing species such as Northern Red Oak. Protect hemlock inclusions from harvest damage while marking to promote hemlock expansion.</p> <p><u>Other</u> Topo will influence southern stand line.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									
6	11040006-Cut	211.5	4115 - Y.Birch, Hemlock NH	High Density Pole	99	Harvest	Single Tree Selection	4115 - Y.Birch, Hemlock NH	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Thin stand down to 70-90 square feet of Basal Area using the single tree selection method. Follow marking guidelines as outlined in the</p> <p><u>Specs:</u> "Complete Marker". Favor mesic conifers White Pine and Hemlock as well as Hard Mast producing species such as Northern Red Oak. Protect hemlock inclusions from harvest damage while marking to promote hemlock expansion.</p> <p><u>Other</u> Some low areas in the stand might change acreage.</p> <p><u>Comments:</u></p> <p><u>Next</u> Wildlife Div: Underplant Hemlock</p> <p><u>Steps:</u></p>									
7	11040007-Cut	461.1	4112 - Maple, Beech, Cherry Association	High Density Log	99	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Thin stand down to 70-90 square feet of Basal Area using the single tree selection method. Follow marking guidelines as outlined in the</p> <p><u>Specs:</u> "Complete Marker". Favor mesic conifers White Pine and Hemlock as well as Hard Mast producing species such as Northern Red Oak. Protect hemlock inclusions from harvest damage while marking to promote hemlock expansion.</p> <p><u>Other</u> Extreme topo in stand area will change acreage.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>									

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
21 11040021-Cut	3.8	6123 - Lowland Fir	High Density Pole	60	Harvest	Clearcut with Reserves	6123 - Lowland Fir	Cmpt. Review Proposal - Incomplete

Prescription Harvest all species greater than 2" dbh other than: hemlock, cedar and white pine.

Specs:

Other

Comments:

Next

Steps:

22 11040022-Cut	16.8	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	99	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal - Incomplete
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Prescription Harvest all species other than: yellow birch less than 8" dbh or greater than 18" dbh, hemlock, cedar, white pine and if any oak are found they should be left.

Specs:

Met with Wld Staff and determined to leave hemlock and white pine ridge along the southern edge of the stand along the road and salvage rest of the stand.

Other

Comments:

Next

Steps:

23 11040023-Cut	54.8	4119 - Mixed Northern Hardwoods	High Density Pole	99	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal - Incomplete
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Prescription Thin stand down to 70-90 square feet of Basal Area using the single tree selection method. Follow marking guidelines as outlined in the Specs: "Complete Marker". Favor mesic conifers White Pine and Hemlock as well as Hard Mast producing species such as Northern Red Oak. Protect hemlock inclusions from harvest damage while marking to promote hemlock expansion.

Other

Comments: There is a patch of aspen in the north of the stand that will reduce BA in those areas. Some nice oak in areas that should have the BA lowered to promote regeneratoin.

Wld: Have FMD staff set up this stand, no contract.

Next

Steps:

Wld: Possible stand for hemlock underplanting.

26 11040026-Cut	3.5	4112 - Maple, Beech, Cherry Association	High Density Log	99	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal - Incomplete
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Prescription Thin stand down to 70-90 square feet of Basal Area using the single tree selection method. Follow marking guidelines as outlined in the Specs: "Complete Marker". Favor mesic conifers White Pine and Hemlock as well as Hard Mast producing species such as Northern Red Oak. Protect hemlock inclusions from harvest damage while marking to promote hemlock expansion.

Other

Comments: If possible put up in the summer of 2011 to be harvested with "Funke Hdwds 11-016-09-01" since it borders stands in the compartment to the south that are currently under contract.

Next

Steps:

**Total Treatment  
Acreage Proposed: 1250.6**

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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

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**Total Treatment**  
**Acreage Proposed: 0**

Out of YOE -- Treatments  
Prescribed with No Limiting Factor

Year of Entry: 2013



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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  
Comments:

Next  
Steps:

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**Total Treatment  
Acreage Proposed: 0**

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## Baraga Mgt. Unit

## 5 – Forested Stands

Compartment: 040  
Year of Entry: 2013

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4112 - Maple, Beech, Cherry Association	High Density Log	137.8	Uneven Age	111-140	
2	4112 - Maple, Beech, Cherry Association	High Density Log	117.3	Uneven Age	81-110	
3	4119 - Mixed Northern Hardwoods	High Density Log	58.5	Uneven Age	81-110	Drainage corridor. Water protection.
4	4115 - Y.Birch, Hemlock NH	High Density Log	260.3	Uneven Age	111-140	
6	4115 - Y.Birch, Hemlock NH	High Density Pole	213.5	Uneven Age	111-140	
7	4112 - Maple, Beech, Cherry Association	High Density Log	533.7	Uneven Age	111-140	
8	4130 - Aspen	High Density Sapling	3.1	18		
9	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	10.0	Uneven Age	81-110	
10	4130 - Aspen	High Density Sapling	3.8	18		
11	4112 - Maple, Beech, Cherry Association	High Density Log	26.7	Uneven Age	81-110	
12	4112 - Maple, Beech, Cherry Association	High Density Log	45.4	Uneven Age	81-110	
13	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	18.0	50	51-80	
14	4112 - Maple, Beech, Cherry Association	High Density Log	247.0	Uneven Age	81-110	
15	4119 - Mixed Northern Hardwoods	High Density Log	111.0	Uneven Age	51-80	
16	6115 - Lowland Ash	High Density Pole	77.3	Uneven Age	51-80	
17	4130 - Aspen	High Density Pole	12.7	30		Poor stocked A5 in 2011.
19	4130 - Aspen	High Density Sapling	32.5	21		A3 in 2011.
20	4130 - Aspen	High Density Sapling	14.4	21		A3 in 2011.

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Baraga Mgt. Unit

5 – Forested Stands

Compartment: 040  
Year of Entry: 2013



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	6123 - Lowland Fir	High Density Pole	3.8	60	81-110	
22	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	127.4	Uneven Age	111-140	
23	4119 - Mixed Northern Hardwoods	High Density Pole	54.8	Uneven Age	141-170	
24	4119 - Mixed Northern Hardwoods	High Density Log	205.5	Uneven Age	81-110	
25	4130 - Aspen	High Density Sapling	11.2	21		A3 in 2011
26	4112 - Maple, Beech, Cherry Association	High Density Log	3.5	Uneven Age	111-140	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
5	50 - Water	4.2	N/A	Unspecified	
18	122 - Road/Parking Lot	12.6	N/A	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**

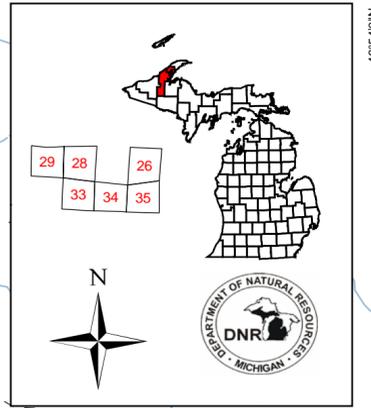
\* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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

Conservation Area	Type	Description
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.

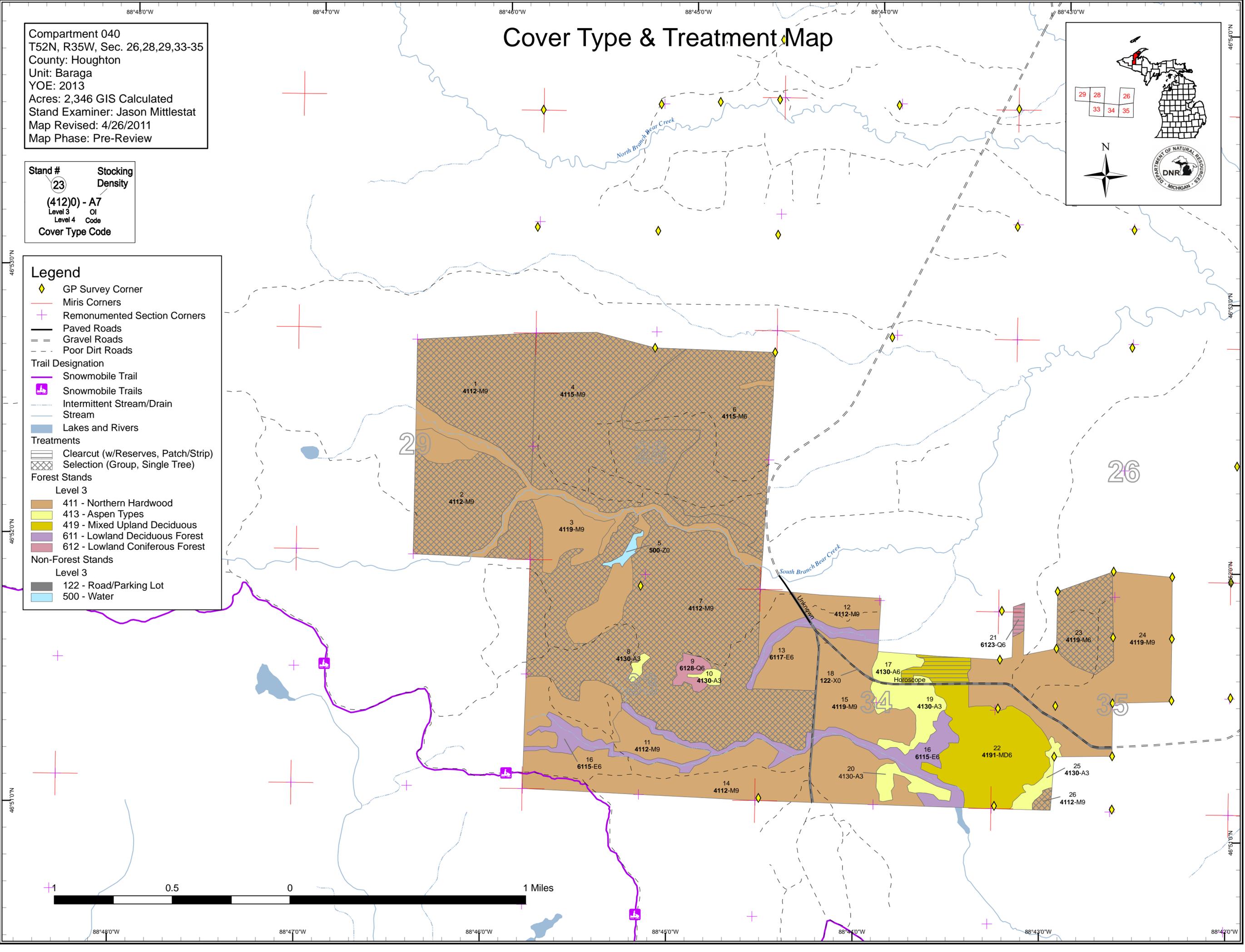
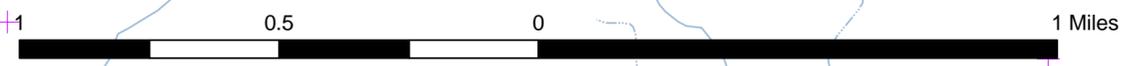
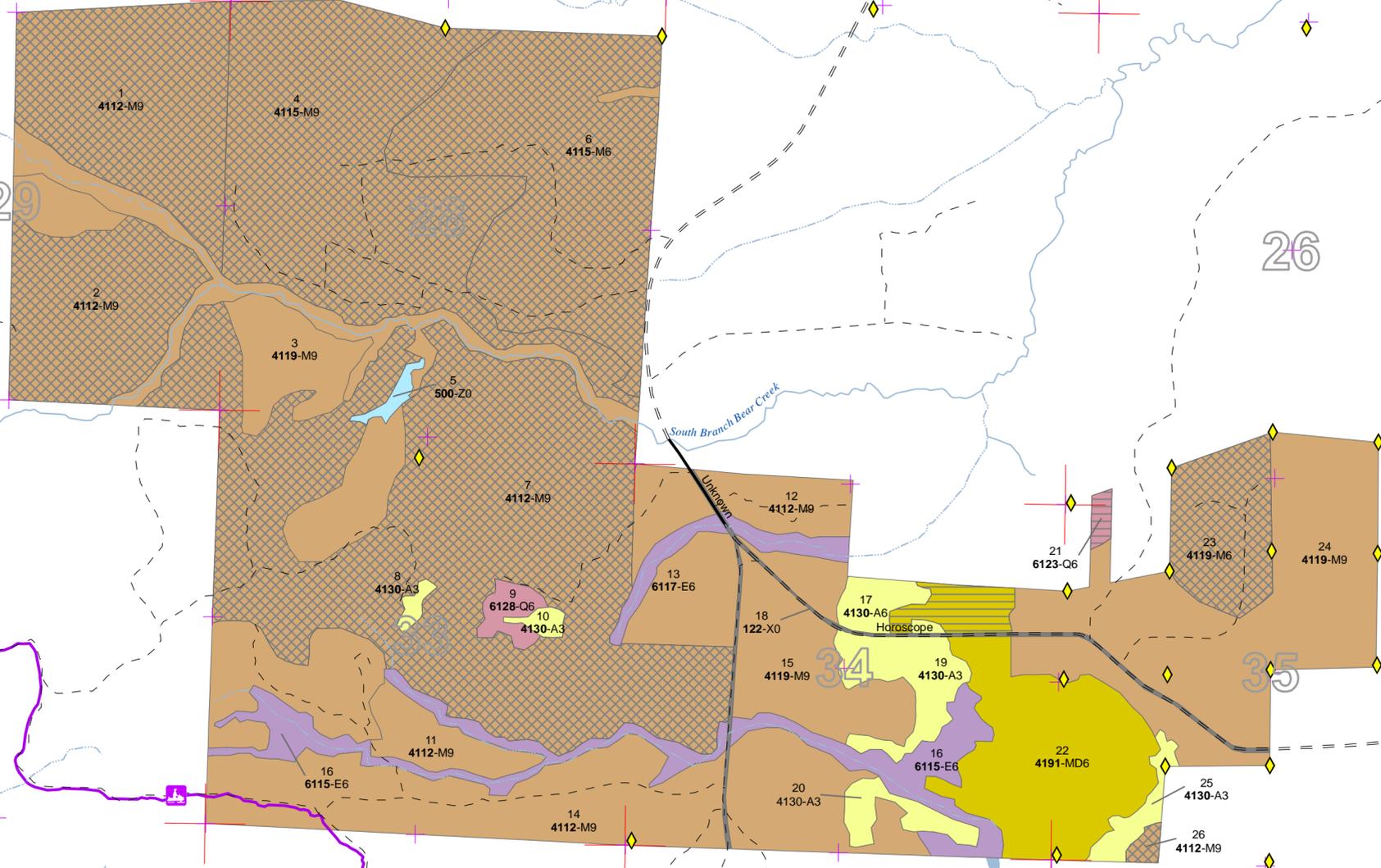
# Cover Type & Treatment Map

Compartment 040  
 T52N, R35W, Sec. 26,28,29,33-35  
 County: Houghton  
 Unit: Baraga  
 YOE: 2013  
 Acres: 2,346 GIS Calculated  
 Stand Examiner: Jason Mittlestat  
 Map Revised: 4/26/2011  
 Map Phase: Pre-Review



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

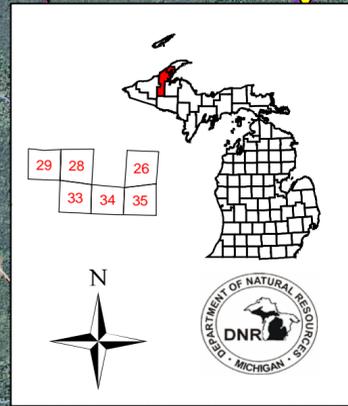
- Legend**
- ◆ GP Survey Corner
  - ✚ Miris Corners
  - ✚ Remonumented Section Corners
  - Paved Roads
  - - - Gravel Roads
  - - - Poor Dirt Roads
  - Trail Designation**
  - Snowmobile Trail
  - Snowmobile Trails
  - Intermittent Stream/Drain
  - Stream
  - Lakes and Rivers
  - Treatments**
  - Clearcut (w/Reserves, Patch/Strip)
  - Selection (Group, Single Tree)
  - Forest Stands**
  - Level 3**
  - 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
  - Non-Forest Stands**
  - Level 3**
  - 122 - Road/Parking Lot
  - 500 - Water



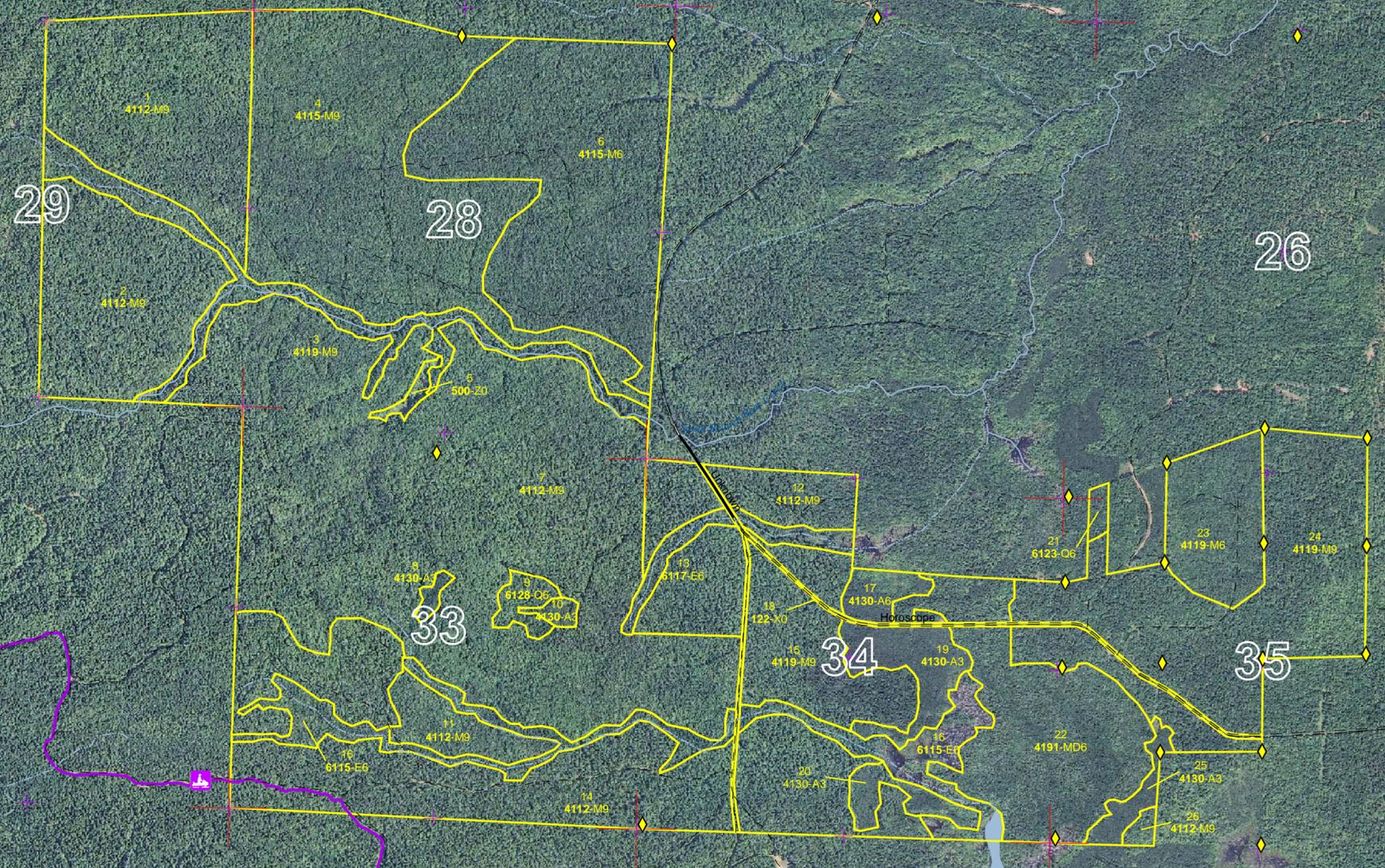
# Stand Boundary Map

Compartment 040  
 T52N, R35W, Sec. 26,28,29,33-35  
 County: Houghton  
 Unit: Baraga  
 YOE: 2013  
 Acres: 2,346 GIS Calculated  
 Stand Examiner: Jason Mittlestat  
 Map Revised: 4/26/2011  
 Map Phase: Pre-Review

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



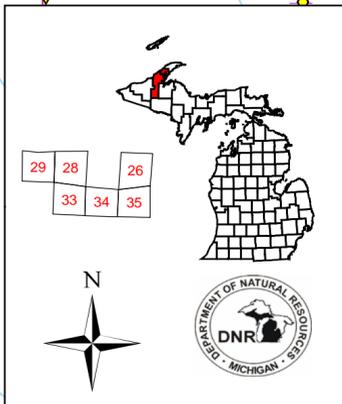
- Legend**
- ◆ GP Survey Corner
  - Miris Corners
  - + Remonumented Section Corners
  - Paved Roads
  - Gravel Roads
  - Poor Dirt Roads
- Trail Designation**
- Snowmobile Trail
  - ◆ Snowmobile Trails
  - Intermittent Stream/Drain
  - Stream
  - Lakes and Rivers
  - Stand Boundaries
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- Level 3
- 122 - Road/Parking Lot
  - 500 - Water



Horoscope Rd

# Dedicated & Proposed Special Conservation Area Map

Compartment 040  
 T52N, R35W, Sec. 26,28,29,33-35  
 County: Houghton  
 Unit: Baraga  
 YOE: 2013  
 Acres: 2,346 GIS Calculated  
 Stand Examiner: Jason Mittlestat  
 Map Revised: 4/26/2011  
 Map Phase: Pre-Review



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

**Legend**

- ◆ GP Survey Corner
- Miris Corners
- ⊕ Remonumented Section Corners
- Stand Boundaries
- Proposed Special Conservation Areas
  - ▨ SCA - Special Conservation Area
  - ▩ SCA Removal
- Dedicated Special Conservation Areas
  - Cold Water Streams
  - Deer Wintering Areas
- Forest Stands
  - Level 3
    - 411 - Northern Hardwood
    - 413 - Aspen Types
    - 419 - Mixed Upland Deciduous
    - 611 - Lowland Deciduous Forest
    - 612 - Lowland Coniferous Forest
- Non-Forest Stands
  - Level 3
    - 122 - Road/Parking Lot
    - 500 - Water

