



# Compartment Review Presentation

## Baraga Forest Management Unit

Compartment 36

Entry Year 2016

Acreage: 1,034

County Houghton

Management Area: Central Houghton

**Revision Date:** 04/09/2014

**Stand Examiner:** Jason Mittlestat

### Legal Description:

HOUGHTON COUNTY, PORTAGE TOWNSHIP  
T53N, R35W, Sections 35, 36

### Identified Planning Goals:

The Central Houghton management area is on dissected moraines in Central Houghton County. The state forest covers 46,908 acres and is in scattered blocks. The management area is dominated by the northern hardwoods, aspen and lowland conifer cover types. Other attributes that played a role in the definition of this management area include:

- Dominated by the mesic northern forest natural community;
  - High-range in site quality;
  - Provides multiple benefits including forest products and dispersed recreational activities; and
  - Provides a variety of fish and wildlife habitats.
- This management area contains one of the western Upper Peninsula Grouse Enhanced Management Systems areas.

This area plan will emphasize balanced age classes of aspen for timber production which will have habitat benefits for ruffed grouse. The boundaries of Grouse Enhanced Management Systems areas will be delineated and an operational plan will be developed during this planning period by the local biologist in collaboration with the Forest Resources Division unit manager and integrated into the plan through the revision process.

The management priority for this area is the production of high-quality timber products, particularly hardwood sawlogs and veneer while maintaining habitat qualities for wildlife species dependent on the northern hardwood communities in this area

### Soil and topography:

Munising – Yalmer complex (loamy fine sand and sand), Au Gres – Roscommon complex (sand and mucky sands), Kalkaska – Halfaday sands, Halfaday – Au Gres sands, Tawas – Roscommon mucks, Keweenaw – Kalkaska complex (loamy sand and sands), Munising loamy fine sand, Skanee – Gay complex (fine sandy loam). Terrain is level to rolling.

### Ownership Patterns, Development, and Land Use in and Around the Compartment:

There is adjacent state owned land to the north in Section 25 and 26. Lands to the east and west are owned by forest industry. The south line is bordered by small private ownership's. The adjacent ownership is managed for timber and hunting.

### Unique Natural Features:

No Unique Natural Features known.

### Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

### Special Management Designations or Considerations:

None.

### Watershed and Fisheries Considerations:

Thirteen mile creek, and the Sante River and its tributaries are trout streams.

### Wildlife Habitat Considerations:

The combination of lowlands and uplands is good black bear habitat. Encouragement of hard- and soft-mast-producing species is desirable when commercial treatments are scheduled. Protection of ephemeral wetlands in northern hardwood stands is important to preserve spring foraging opportunities for bears.

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

Compartment 36: Sections 35 and 36, T53N-R35W, Houghton County  
Surface sediments consist of lacustrine (lake) sand and gravel and minor coarse-textured glacial till. There is insufficient data to determine the glacial drift thickness. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville was previously used as a building stone. The nearest gravel pit is located three miles to the south and potential

appears to be good on the uplands. Abandoned copper mines and crushed basalt piles are located six miles to the north and to the southwest. The compartment has not been leased before. There is no economic oil and gas production in the UP.

**Vehicle Access:**

Road access to the greater part of the compartment is from the Dollar Bay Grade. Access has been improved through the corporate land to the north. The east end of the compartment is accessed from Palo Road.

**Survey Needs:**

None.

**Recreational Facilities and Opportunities:**

There are no developed recreational facilities. There is occasional hunting and fishing.

**Fire Protection:**

This compartment is very remote with limited public access. Human caused fire occurrence is very low here historically.

**Additional Compartment Information:**

**The following reports from the Inventory are attached:**

- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

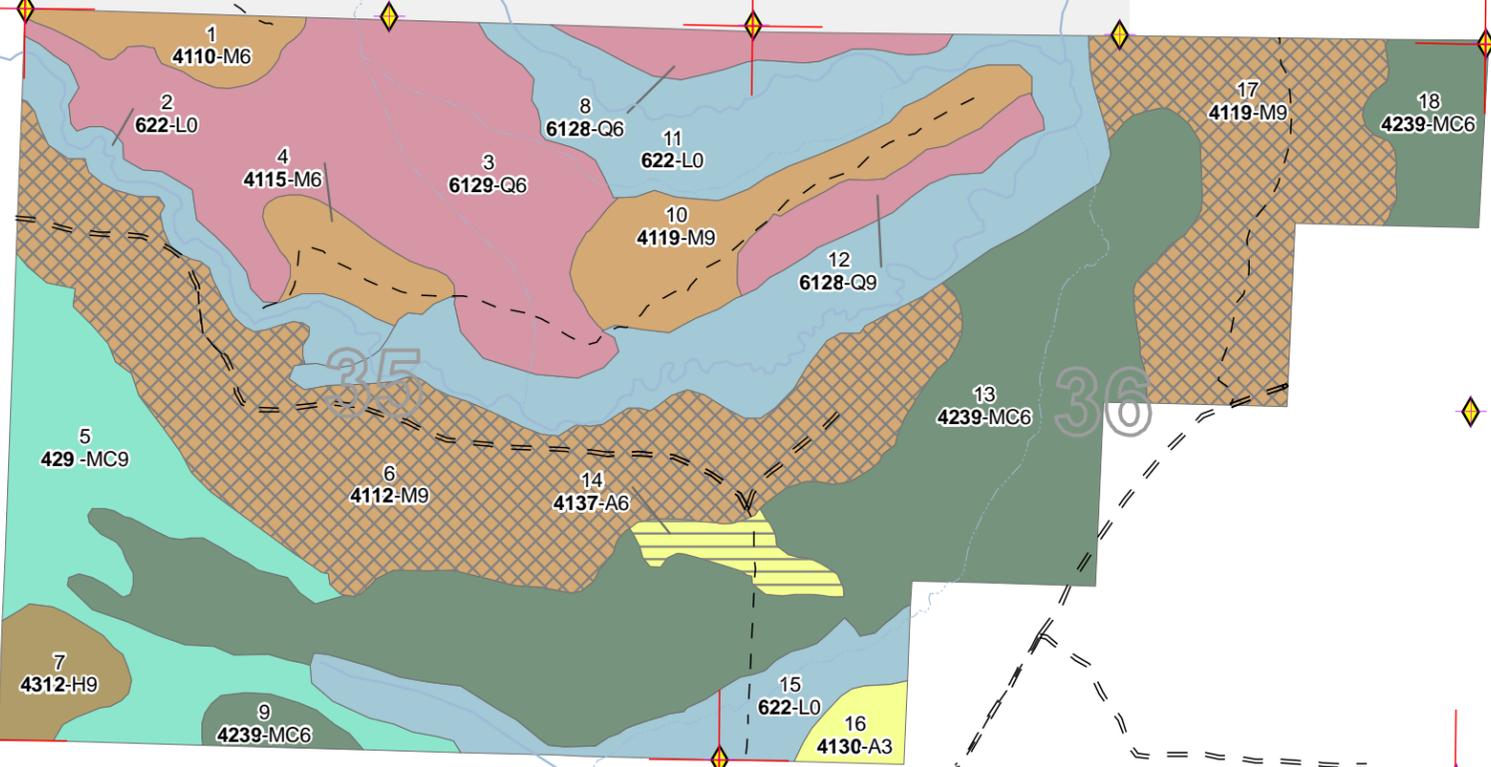
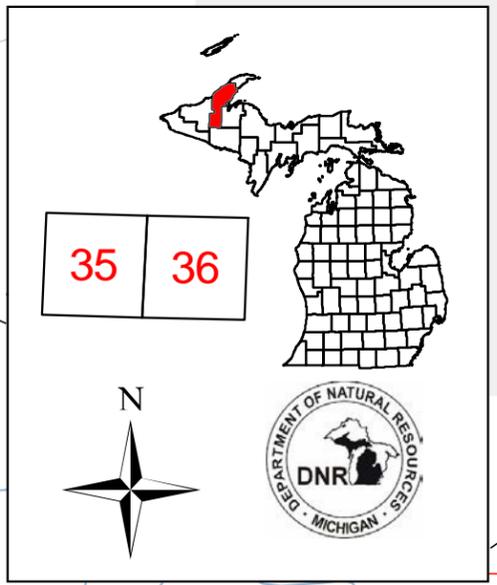
**The following information is displayed, where pertinent, on the attached compartment maps:**

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

# Cover Type & Treatment Map

Compartment: 36  
 T53N R35W Sec: 35, 36  
 County: Houghton  
 Unit: Baraga  
 YOE: 2016  
 Acres: 1,034 GIS Calculated  
 Examiner: Jason Mittlestat  
 Map Revised: 5/20/2014  
 Map Phase: Pre-Review

**Stand #**  
 23  
**Stocking Density**  
 (4120) - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**



**Legend**

- Remonumented Section Corners
- Miris Corners
- PLSS Corner
- Gravel Roads
- Poor Dirt Roads
- Stream
- Intermittent Stream

**Treatments**

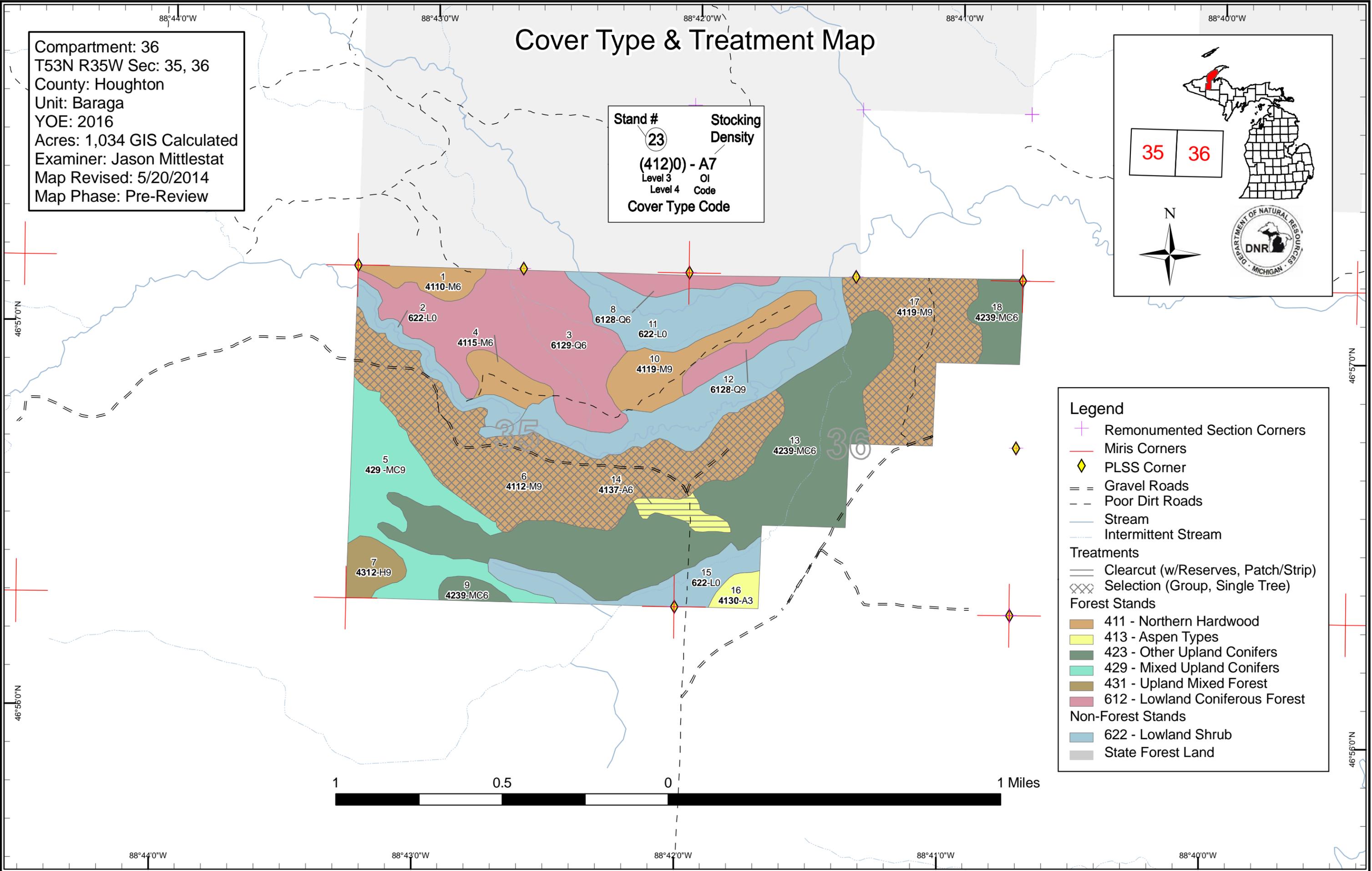
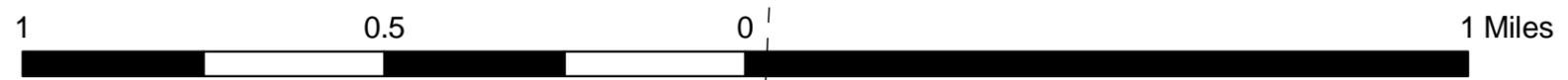
- Clearcut (w/Reserves, Patch/Strip)
- Selection (Group, Single Tree)

**Forest Stands**

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

**Non-Forest Stands**

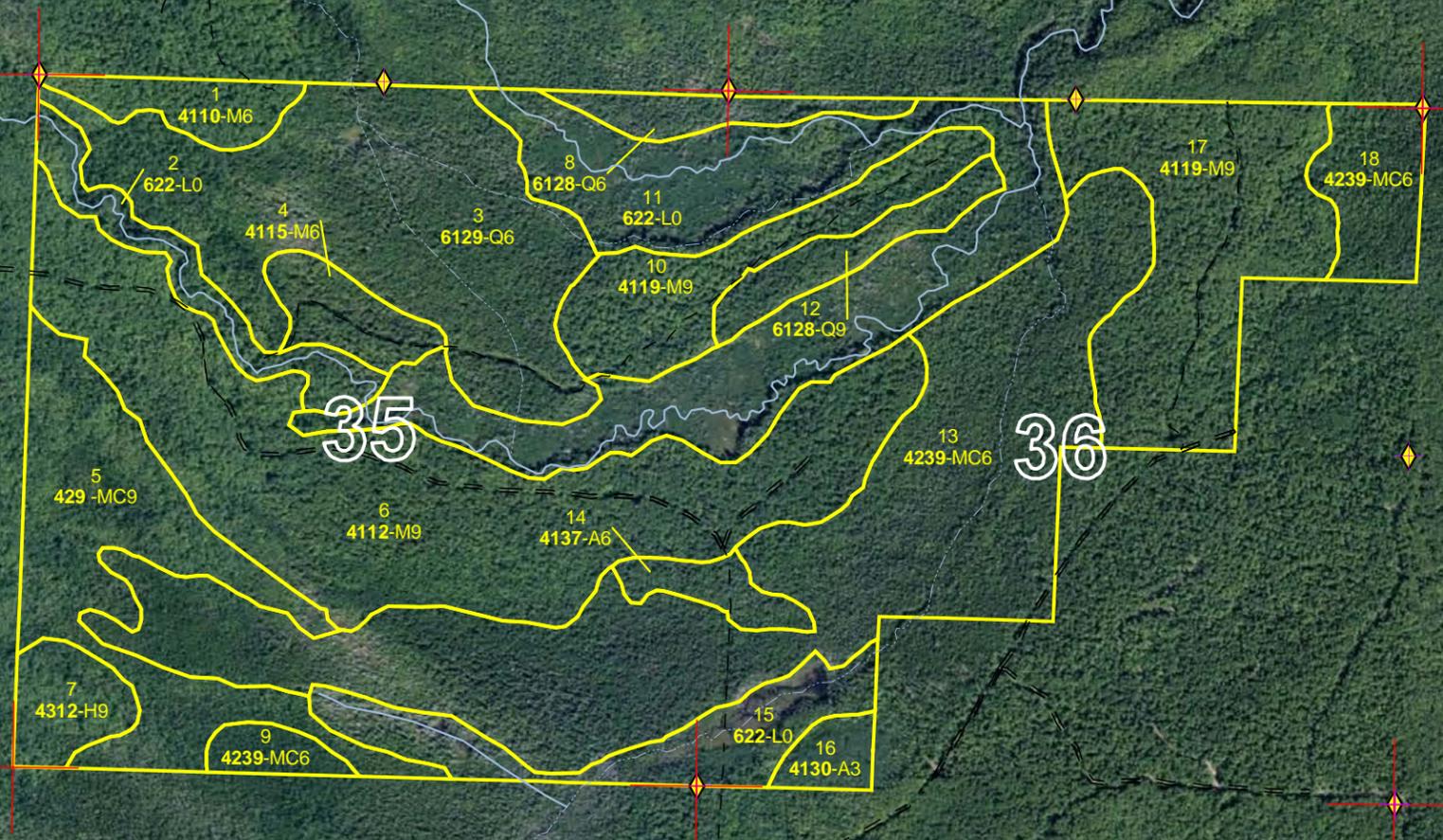
- 622 - Lowland Shrub
- State Forest Land



# Stand Boundary Map

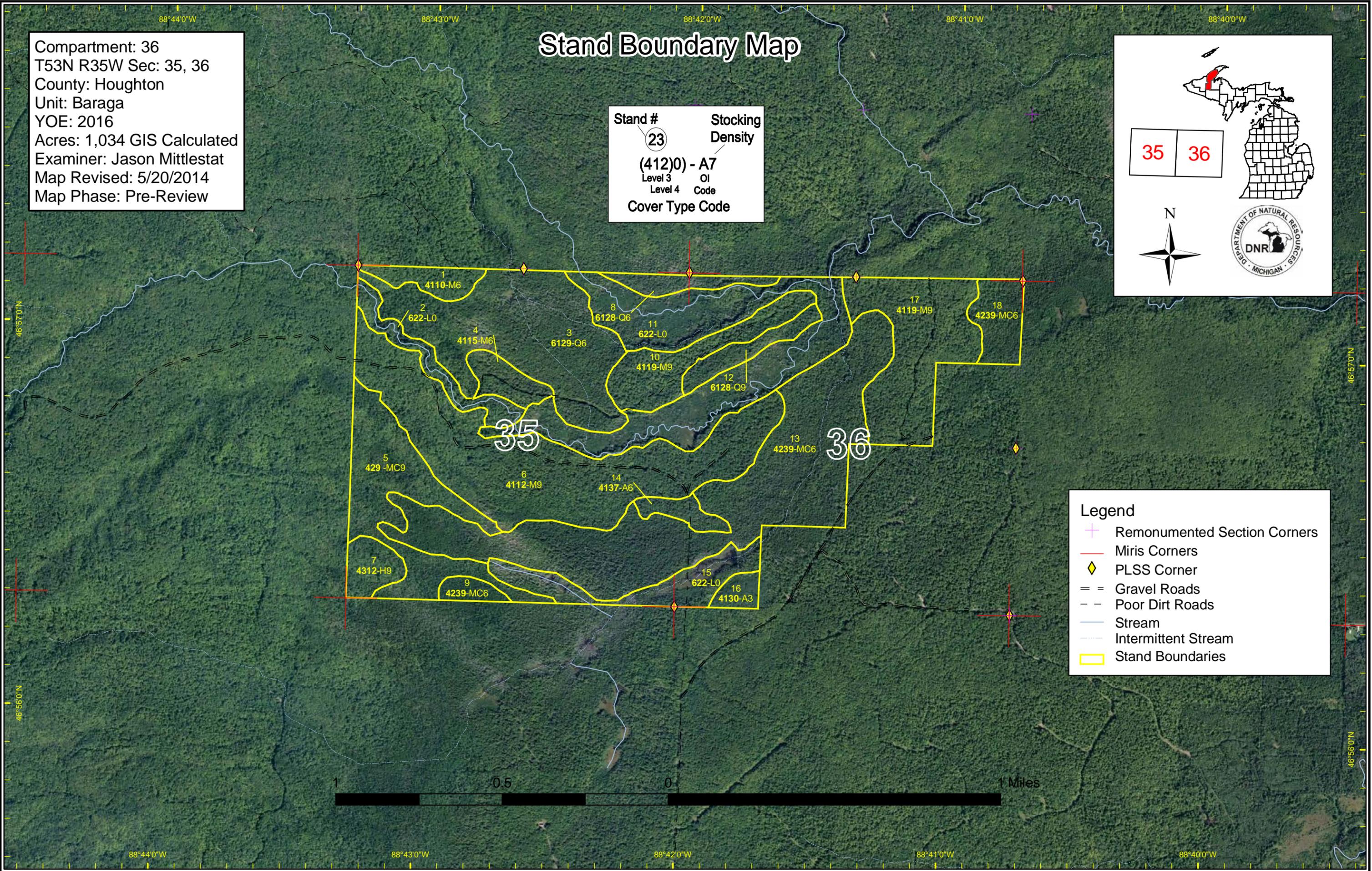
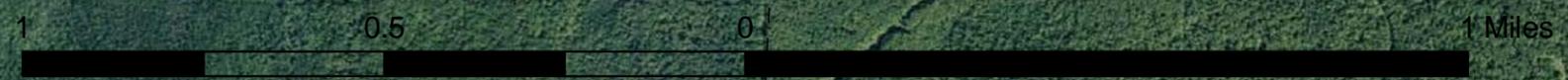
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**Legend**

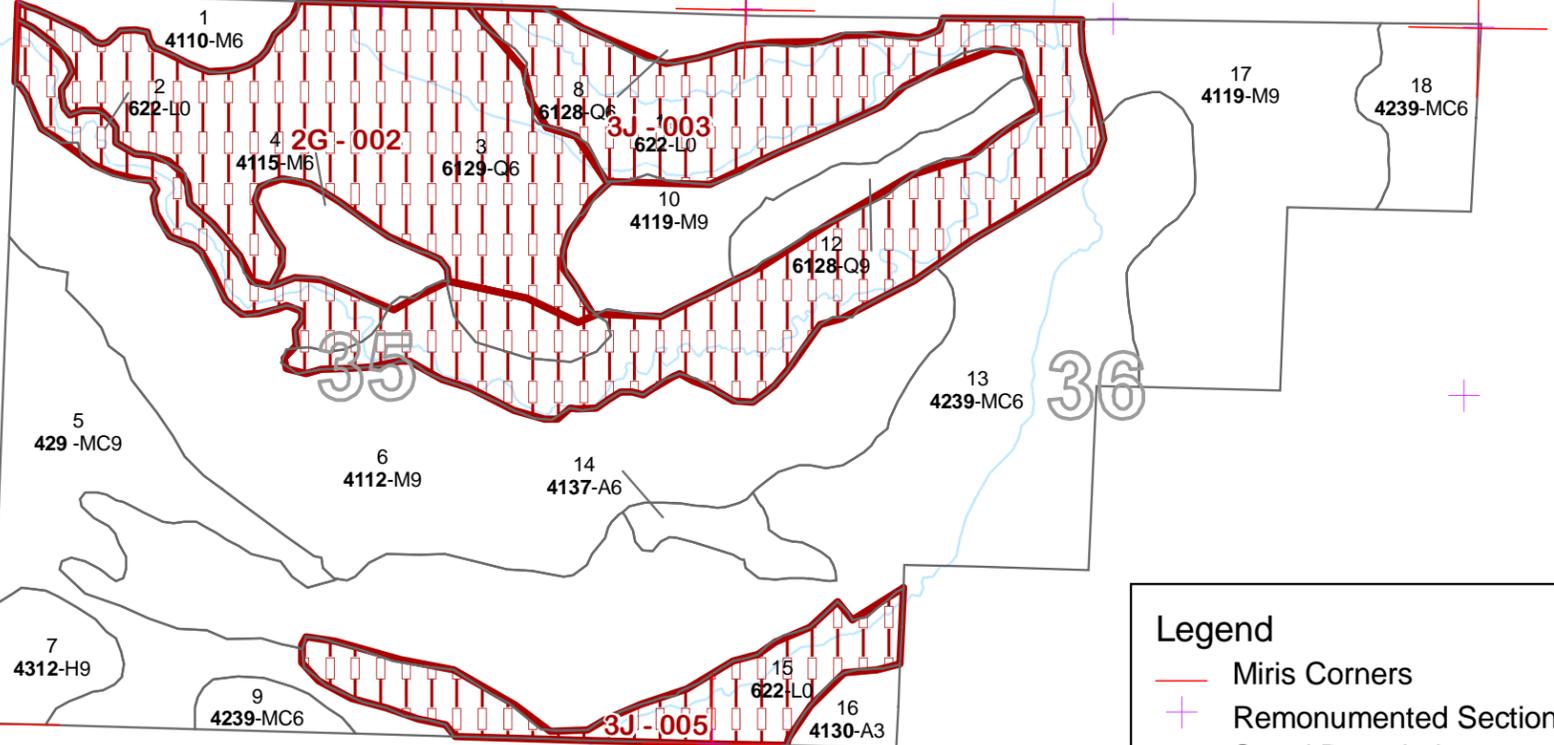
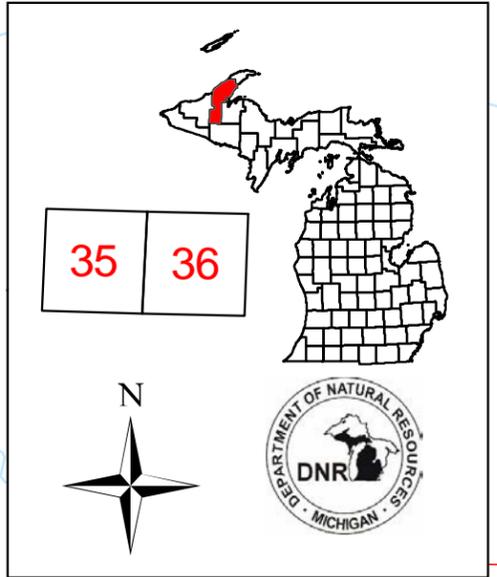
- Remonumented Section Corners
- Miris Corners
- PLSS Corner
- Gravel Roads
- Poor Dirt Roads
- Stream
- Intermittent Stream
- Stand Boundaries



# Special Conservation Areas & Site Conditions Map

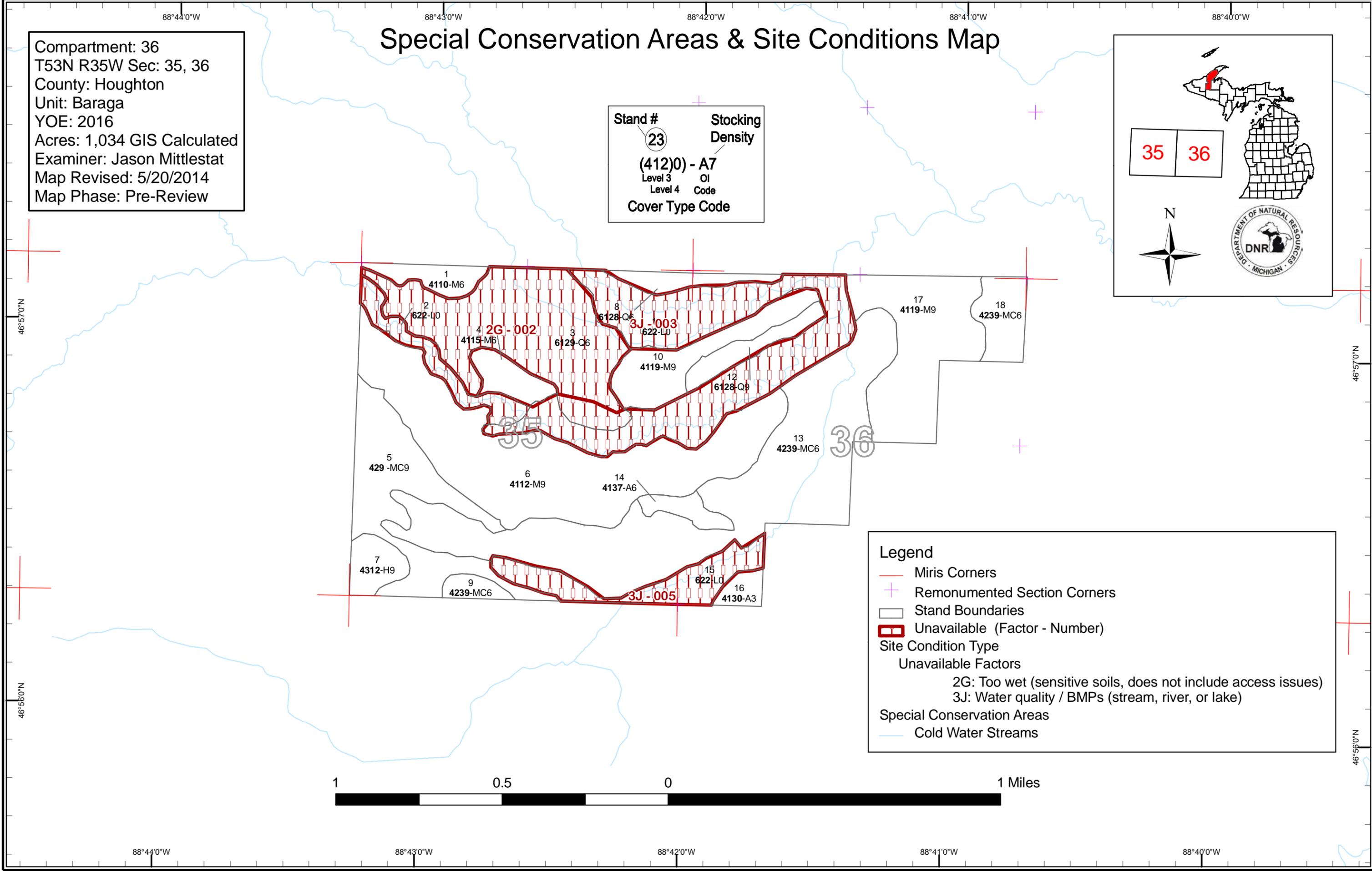
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 Examiner: Jason Mittlestat  
 Map Revised: 5/20/2014  
 Map Phase: Pre-Review

**Stand #**  
 23  
**Stocking Density**  
 (4120) - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**



**Legend**

- Miris Corners
- + Re-monumented Section Corners
- Stand Boundaries
- Unavailable (Factor - Number)
- Site Condition Type
- Unavailable Factors
- 2G: Too wet (sensitive soils, does not include access issues)
- 3J: Water quality / BMPs (stream, river, or lake)
- Special Conservation Areas
- Cold Water Streams



Report 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	8	0	0	0	0	0	0	11	0	0	0	0	0	19
Hemlock	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16
Lowland Conifers	0	0	0	0	0	0	0	0	124	0	0	0	0	30	154
Lowland Shrub	198	0	0	0	0	0	0	0	0	0	0	0	0	0	198
Northern Hardwood	0	0	0	0	0	0	15	0	0	0	0	0	0	313	328
Upland Conifers	0	0	0	0	0	0	0	0	211	30	0	0	0	79	320
<b>Total</b>	<b>198</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>346</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>437</b>	<b>1034</b>



## Report 2 – Proposed Treatment Summaries

**Baraga Mgt. Unit**  
**Year of Entry 2016**

**Compartment 036**  
**Total Compartment Acres: 1,034**

### Acres by Treatment Type

Commercial Harvest - 269	Tree Planting - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 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 Types</b>	11	0	0	0	0	0	11
<b>Northern Hardwood</b>	0	258	0	0	0	0	258
<b>Total</b>	11	258	0	0	0	0	269



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6 11036006-Cut	175.3	4112 - Maple, Beech, Cherry Association	High Density Log	99	81-110	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription Selectively thin hardwoods to 70-90 sqft of BA. Favor oak, hemlock, black cherry, white pine and cedar where present. Oak should be released on 3 sides to an average BA of 50 sqft. Where 30 sqft or more of hemlock occurs thin to less than 100 sqft of BA. Follow all guidelines set forth in "The Complete Marker".

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2015

14 11036014-Cut	10.5	4137 - Aspen, Birch	High Density Pole	88		Harvest	Clearcut with Reserves	4137 - Aspen, Birch	Cmpt. Review Proposal
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Prescription Harvest all species down to 4.6 inches DBH except hemlock, cedar and white pine. Also, reserve red oak if present. All yellow birch 20" DBH and greater shall be retained. Retention for this stand will be greater than 3% and will consist of reserve tree species.

Other Comments:

Next Steps: Regeneration survey as per work instructions.

Proposed Start Date: 10/01/2015

17 11036017-Cut	82.6	4119 - Mixed Northern Hardwoods	High Density Log	99	111-140	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal
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Prescription Selectively thin hardwoods to 70-90 sqft of BA. Favor oak, hemlock, aspen, black cherry, white pine and cedar where present. Oak should be released on 3 sides to an average BA of 50 sqft. Where 30 sqft or more of hemlock occurs thin to less than 100 sqft of BA. Follow all guidelines set forth in "The Complete Marker".

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2015

**Total Treatment Acreage Proposed: 268.5**



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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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#Type! #Type!

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Proposed  
Start Date: #Type!

Limiting Factor

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**Total Treatment**  
**Acreage Proposed: 0.0**

# Report 5 – Site Conditions

**Baraga Mgt. Unit**  
**Jason Mittlestat : Examiner**

**Compartment 036**  
**Year of Entry 2016**



### Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	3J	2G
	Available	Not Available				
19	19	0	<b>Aspen</b>	19	0	
16	16		<b>Hemlock</b>	16		
153	29	125	<b>Lowland Conifers</b>	29	10	114
327	327	1	<b>Northern Hardwood</b>	327	1	
320	319	1	<b>Upland Conifers</b>	319	1	
835	708	126	Total Forested Acres	708	12	114
	85%	15%	Relative Percent			

*\*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Not Available	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	115	3J: Water quality / BMPs (stream, river, or lake)			
<b>Comments:</b>							
003	Not Available	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	170				
<b>Comments:</b> Sante River							
005	Not Available	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	38				
<b>Comments:</b>							



### Report 6 – 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.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
<b>Comments</b>				



### Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

\* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

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.



Stand	Baraga Mgt. Unit		Report 8 – Forested Stands			Compartment: 036 Year of Entry: 2016	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
1	4110 - Sugar Maple Association	High Density Pole	15.0	Uneven Age	81-110		
3	6129 - Mixed Coniferous Lowland Forest	High Density Pole	124.3	88	171-200		
4	4115 - Y.Birch, Hemlock NH	High Density Pole	15.4	65	51-80	"Helicopter Hdwd 1998" Very brushy. Some ash coming in, in the understory.	
5	429 - Mixed Upland Conifers	High Density Log	78.9	Uneven Age	111-140		
6	4112 - Maple, Beech, Cherry Association	High Density Log	175.3	Uneven Age	81-110		
7	4312 - Hemlock, Mixed Deciduous	High Density Log	15.8	Uneven Age	111-140	Headwaters of a trib to the Sante River.	
8	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	13.4	Uneven Age	81-110		
9	42390 - Mixed Non- Pine Upland Conifers	High Density Pole	7.8	94	171-200		
10	4119 - Mixed Northern Hardwoods	High Density Log	39.9	Uneven Age	81-110		
12	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	16.5	Uneven Age	81-110		
13	42390 - Mixed Non- Pine Upland Conifers	High Density Pole	211.1	88	171-200		
14	4137 - Aspen, Birch	High Density Pole	10.5	88			
16	4130 - Aspen	High Density Sapling	8.1	16			
17	4119 - Mixed Northern Hardwoods	High Density Log	82.6	Uneven Age	111-140		
18	42390 - Mixed Non- Pine Upland Conifers	High Density Pole	22.1	91	171-200		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	622 - Lowland Shrub	22.7	Unspecified	Unspecified	Sante River
11	622 - Lowland Shrub	137.7	Unspecified	Unspecified	
15	622 - Lowland Shrub	37.3	Unspecified	Unspecified	