



# Compartment Review Presentation

Baraga Forest Management Unit

Compartment 11034

Entry Year 2018

Acreage: 757

County Houghton

Management Area: Central Houghton

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**Revision Date:** 2016-05-12

**Stand Examiner:** Jason Mittlestat

**Legal Description:**

Portage Township,  
T53N, R34W, Sections 19, 30

**Identified Planning Goals:**

To maintain a healthy sustainable forest with special consideration to wildlife and fisheries habitat.

**Soil and topography:**

The topography is rolling to hilly. The upland soils are mostly Munising loamy fine sand and sandy loam, and Yalmer sands. There are some Halfaday sands on the East edge. There are some Skanee-Gay complex (fine sandy loam and mucky sandy loam soils). The wetlands are Lupton muck and Dawson peat.

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

There are state forest lands adjacent to the North and West sides of this compartment. Other adjacent lands are industrial timber land, with the exception of small private ownerships to the South and East.

**Unique Natural Features:**

Potential for osprey, eagle, great blue heron rookery, red-shouldered hawk, goshawk, moose, and gray wolf. Potential for wood turtle along riparian corridors. Potential for calypso orchid, rayless mountain ragwort and ram's head lady's-slipper in conifer swamps.

**Archeological, Historical, and Cultural Features:**

None known

**Special Management Designations or Considerations:**

None

**Watershed and Fisheries Considerations:**

This compartment contains cold water tributaries to the North Branch of the Otter River which is a trout stream. There are concerns about stream crossings and bank erosion.

**Wildlife Habitat Considerations:**

Managing habitat for; black bear, blackburnian warbler, pileated woodpecker, ruffed grouse, northern goshawk and American marten should be considered when planning harvest specifications in this this compartment.

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

Surface sediments consist of an end moraine of fine-textured till and lacustrine (lake) sand and gravel. 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 closest gravel pit is located four miles to the southeast, but there may be potential on the uplands. Abandoned copper mines are located ten miles to the southwest. The Compartment has not been previously leased for metallic exploration. There is no economic oil and gas production in the UP.

**Vehicle Access:**

Previous timber harvest activity has somewhat improved the road access. However, access is limited across private lands to the South. All stream crossings on State land in this compartment were temporary, and were removed upon harvest completion. New crossings will require permits for future access.

**Survey Needs:**

None identified at this time, will be addressed as needed in the future.

**Recreational Facilities and Opportunities:**

The large expanse of continuous forest offer great hunting opportunities for both large and small game, but is limited due to poor access.

**Fire Protection:**

This compartment has little to no potential for a large fire with the primary cover type being northern hardwoods. The remote location and equipment access would be the primary issue for fire suppression activities.

**Additional Compartment Information:**

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

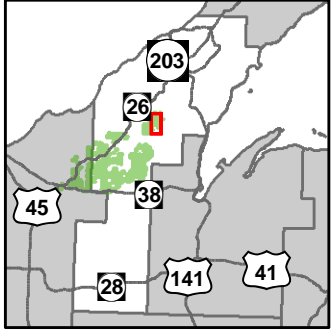
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

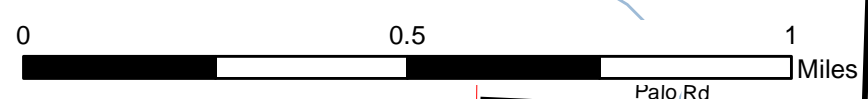
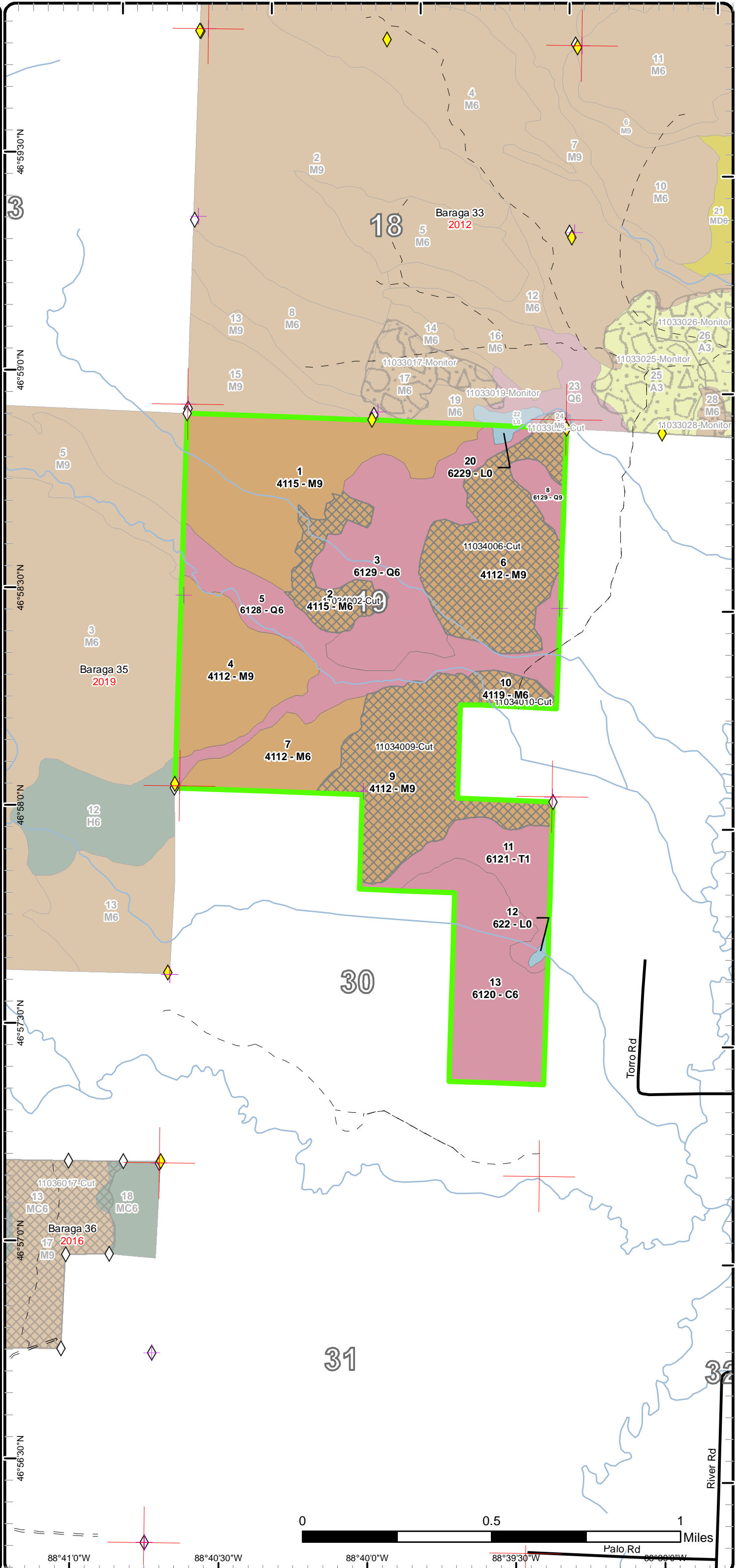
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

Compartment: 34  
 T53N, R34W, Sec: 19, 30  
 County: Houghton  
 Unit: Baraga  
 Mgmt Area: Central Houghton  
 YOE: 2018  
 Acres: 757 GIS Calculated  
 Examiner: Jason Mittlestat  
 Map Revised: 8/17/2016  
 Map Phase: Post Review



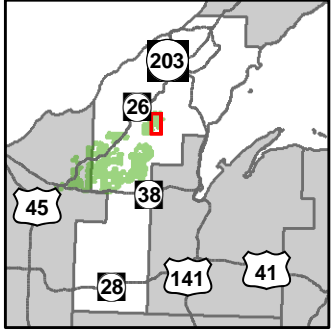
- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Rivers
- Compartment Boundary
- Selection (Group, Single Tree)
- 411 - Northern Hardwood
- 612 - Lowland Coniferous Forest
- 622 - Lowland Shrub



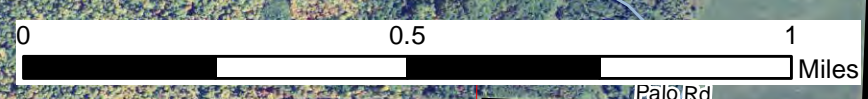
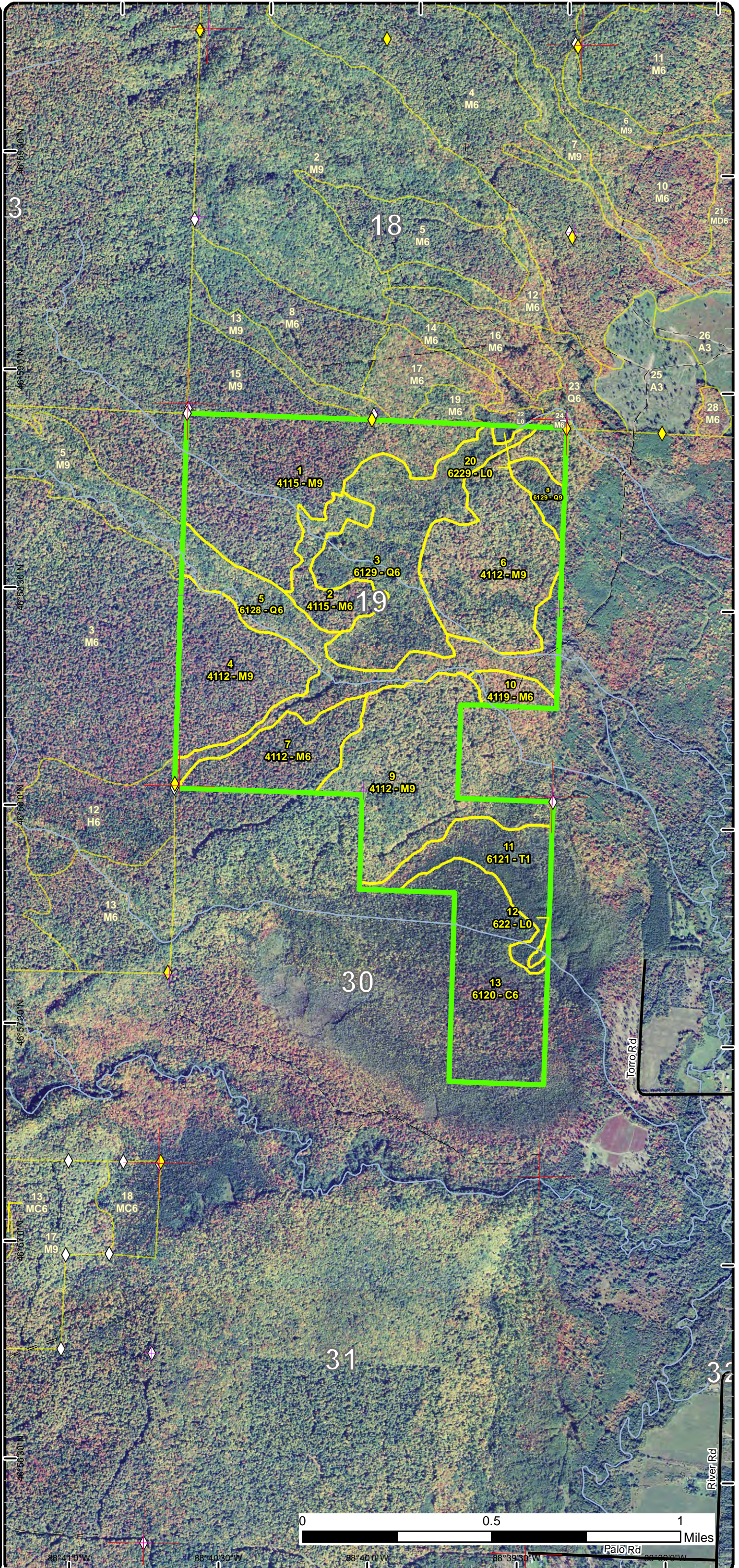
88°41'0"W      88°40'30"W      88°40'0"W      88°39'30"W      88°39'0"W

# Stand Boundary Map

Compartment: 34  
 T53N, R34W, Sec: 19, 30  
 County: Houghton  
 Unit: Baraga  
 Mgmt Area: Central Houghton  
 YOE: 2018  
 Acres: 757 GIS Calculated  
 Examiner: Jason Mittlestat  
 Map Revised: 8/17/2016  
 Map Phase: Post Review



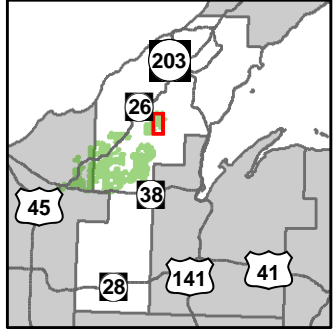
- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Rivers
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 612 - Lowland Coniferous Forest
- 622 - Lowland Shrub



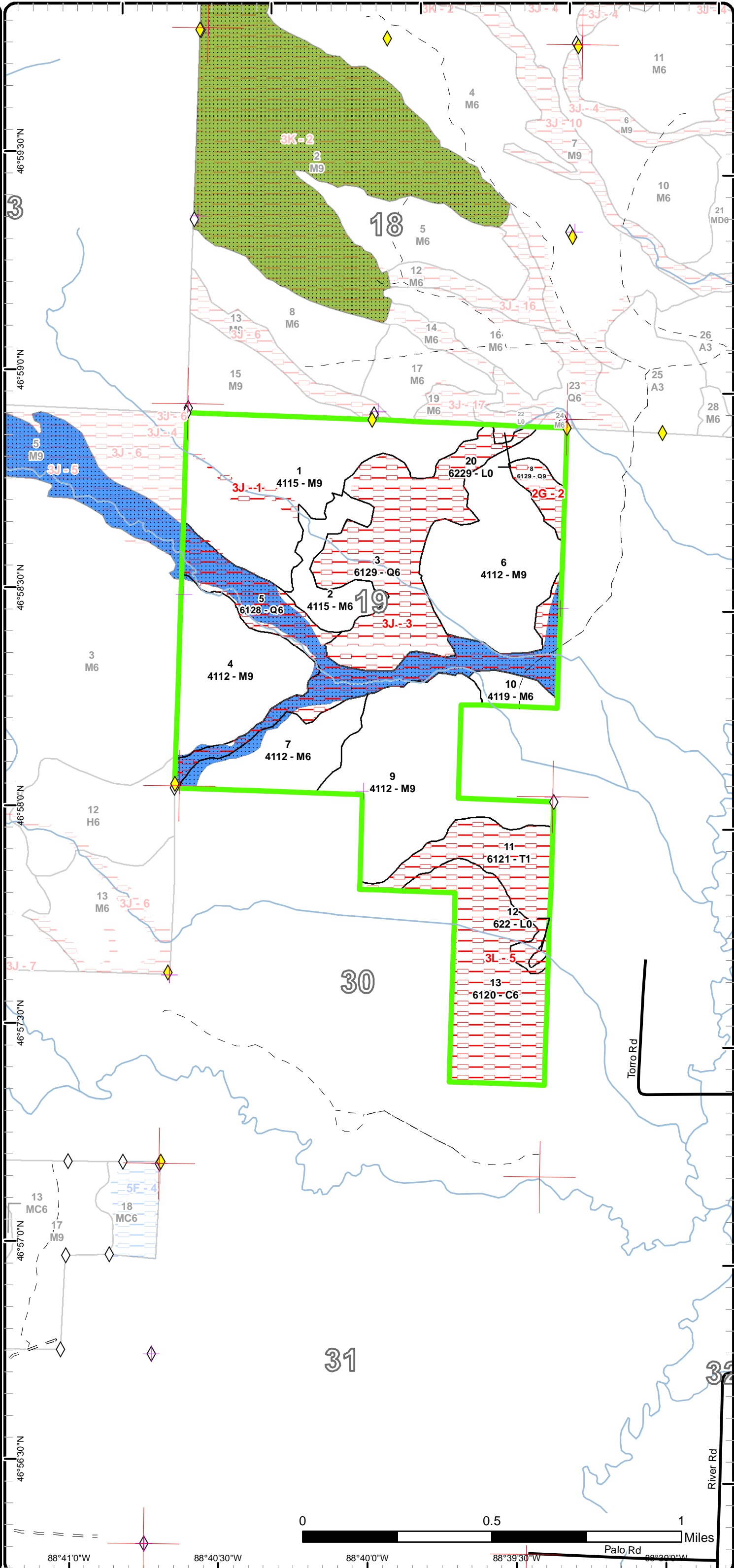
88°41'0"W    88°40'30"W    88°40'0"W    88°39'30"W    88°39'0"W  
 46°59'30"N    46°59'0"N    46°58'30"N    46°58'0"N    46°57'30"N    46°57'0"N    46°56'30"N    46°56'0"N

# Special Conservation Areas & Site Conditions Map

Compartment: 34  
 T53N, R34W, Sec: 19, 30  
 County: Houghton  
 Unit: Baraga  
 Mgmt Area: Central Houghton  
 YOE: 2018  
 Acres: 757 GIS Calculated  
 Examiner: Jason Mittlestat  
 Map Revised: 8/17/2016  
 Map Phase: Post Review



- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Rivers
- Compartment Boundary
- SCA
- Unavailable
- 2G: Too wet (sensitive soils, does not include access issues)
- 3J: Water quality / BMPs (stream, river, or lake)
- 3L: Other wildlife concerns
- Stand Boundaries
- Cold Water Streams
- Verified Type 2 Old Growth
- Riparian Area



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Cedar	0	0	0	0	0	0	0	0	0	81	0	0	0	0	0	0	0	0	81
Lowland Conifers	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	171	181
Lowland Shrub	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	91	0	0	0	0	0	0	359	450
Tamarack	0	0	0	0	0	0	0	0	0	0	42	0	0	0	0	0	0	0	42
<b>Total</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>81</b>	<b>133</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>530</b>	<b>757</b>



## Report 2 – Treatment Summary

Baraga Mgt. Unit

Year of Entry: 2018

Acres of Harvest

Compartment 34

Total Compartment Acres: 757

Commercial Harvest - 224  
 Harvests with Site Condition - 0  
 Next Step Harvest - 0  
 Habitat Cut - 0

### Cover Type by Harvest Method

		Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Northern Hardwood		0	224	0	0	0	0	0	0	0	224
	<b>Total</b>	<b>0</b>	<b>224</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>224</b>

### Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		224	0	0	0	0	0	0	0	0	224
Next Step		0	0	0	0	0	224	0	0	0	224
	<b>Total</b>	<b>224</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>224</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>448</b>



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
2	11034002-Cut	27.3	4115 - Y.Birch, Hemlock NH	Poletimber Well	79	141-170	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Selectively thin hardwoods to 70-90 square feet of basal area. Favor oak, hemlock, white pine and cedar where present. Oak should be released on 3 sides to an average BA of 60 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".											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable Regen:</u> Any combination of the original stand's over story species prior to harvest.											
<u>Other Comment:</u> Poor quality timber. Acreage will be reduced due to BMP's.											
<u>Proposed Start Date:</u> 10/01/2017											
6	11034006-Cut	90.7	4112 - Maple, Beech, Cherry Association	Sawtimber Well	99	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Selectively thin hardwoods to 70-90 square feet of basal area. Favor oak, hemlock, white pine and cedar where present. Oak should be released on 3 sides to an average BA of 60 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".											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable Regen:</u> Any combination of the original stand's over story species prior to harvest.											
<u>Other Comment:</u> Also harvest stand 11033024 immediately to the north in compartment 33.											
Areas of beaver flooding along the east edge of the stand may reduce treatment area.											
<u>Proposed Start Date:</u> 10/01/2017											
9	11034009-Cut	95.7	4112 - Maple, Beech, Cherry Association	Sawtimber Well	97	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Selectively thin hardwoods to 70-90 square feet of basal area. Favor oak, hemlock, white pine and cedar where present. Oak should be released on 3 sides to an average BA of 60 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".											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable Regen:</u> Any combination of the original stand's over story species prior to harvest.											
<u>Other Comment:</u> Some areas of steep terrain and draws throughout the stand.											
<u>Proposed Start Date:</u> 10/01/2017											
10	11034010-Cut	10.4	4119 - Mixed Northern Hardwoods	Poletimber Well	79	51-80	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Selectively thin hardwoods to 70-90 square feet of basal area. Favor oak, hemlock, white pine and cedar where present. Oak should be released on 3 sides to an average BA of 60 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".											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable Regen:</u> Any combination of the original stand's over story species prior to harvest.											
<u>Other Comment:</u> White pine and hemlock pretty consistently scattered throughout the stand. BA's will probably be higher than 90. Some wetter ground in areas.											
<u>Proposed Start Date:</u> 10/01/2017											





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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
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Total Treatment Acreage Proposed: 224.1

## Report 4 – Site Conditions

Baraga Mgt. Unit  
Jason Mittlestat : Examiner

Compartment: 34  
Year of Entry: 2018

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions		
		With Condition	Not Available		2G	3J	3L
81	0	0	81	Cedar			81
181	2	0	179	Lowland Conifers	10	169	
3	0	0	3	Lowland Shrub		2	1
450	441	0	9	Northern Hardwood		9	
42	0	0	42	Tamarack			42
757	443		314	Total Forested Acres	10	179	125
	59%		41%	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
1	Unavailable	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	7	2G: Too wet (sensitive soils, does not include access issues)	2F: Too steep	Unspecified	Unspecified
<b>Comments:</b>							
2	Unavailable	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Beaver flooded timber							
3	Unavailable	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	173	2G: Too wet (sensitive soils, does not include access issues)	2F: Too steep	Unspecified	Unspecified
<b>Comments:</b>							

**Report 4 – Site Conditions**

**Baraga Mgt. Unit**

**Compartment: 34**

**Jason Mittlestat : Examiner**

**Year of Entry: 2018**

5	Unavailable	3L: Other wildlife concerns	125	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Deer yarding area.							



**Report 5 – 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
	Spring-Seeps, Riparian Areas	Riparian Area	<b>Proposed SCA</b>	145
<b>Comments</b> Riparian corridor along cold water spring fed streams.				
	Spring-Seeps, Riparian Areas	Riparian Area	<b>Proposed SCA</b>	145
<b>Comments</b> Riparian corridor along cold water spring fed streams.				



**Report 6 – 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.

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Baraga Mgt. Unit

## Report 7 – Forested Stands

Compartment: 34  
Year of Entry: 2018

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4115 - Y.Birch, Hemlock NH	Sawtimber Well	117.5	83	81-110	The north east arrow of the stand was not harvested through in 2008 because of a pocket of smaller diameter timber. It should be ready to be thinned the next entry in 2028 with the rest of the stand.
2	4115 - Y.Birch, Hemlock NH	Poletimber Well	27.3	79	141-170	Part of fmp hdwd cut in 2000. Good hemlock regen- 1'-10' tall. Poor quality timber.
3	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	93.6	72	141-170	Wet drainage area. BMP issues
4	4112 - Maple, Beech, Cherry Association	Sawtimber Well	67.0	102	81-110	cut in 2010 as part of "South Laski Hdwds" 11-008-08-01
5	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	77.5	85	81-110	SCA - Water Quality Protection - trip to Otter River.
6	4112 - Maple, Beech, Cherry Association	Sawtimber Well	90.7	99	111-140	
7	4112 - Maple, Beech, Cherry Association	Poletimber Well	41.3	94	81-110	cut in 2010 as part of "South Laski hdwds" 11-008-08-01
8	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	9.9	72	111-140	Wet ground. Trib to Otter River. BMP issues
9	4112 - Maple, Beech, Cherry Association	Sawtimber Well	95.7	97	111-140	
10	4119 - Mixed Northern Hardwoods	Poletimber Well	10.4	79	51-80	
11	6121 - Tamarack	Sapling Poor	41.7	97	1-50	
13	6120 - Lowland Cedar	Poletimber Well	81.4	89	Unspecified	



Stand	Cover Type	Acres	Managed Site	General Comments:
12	622 - Lowland Shrub	1.4	No	
20	6229 - Mixed lowland shrub	1.7	No	Wet drainage area