

# Baraga Forest Management Unit Compartment Review Presentation Compartment #48 Entry Year: 2013

Compartment Acreage: 1,511 County: Houghton

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

Stand Examiner: Brad S. Carlson

**Legal Description:** T51N, R36W, Sections 21, 28 and 33.

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

**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 drainages running through deep gullies. Soils are Munising-Alcona-Liminga complex and Munising-Yalmer complex on the uplands. Lowlands are Lupton and Cathro mucks, and Tawas-Roscommon mucks.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Most adjacent lands are managed for timber production by forest industry. There is one small private land inclusion.

Unique, Natural Features: None Identified.

**Archeological, Historical, and Cultural Features**: Remnants of old railroad spur lines used for logging are in this compartment.

**Special Management Designations or Considerations:** None Identified.

**Watershed and Fisheries Considerations:** The West Branch of the Otter River is a high quality trout stream. Recent stream improvement and bank stabilization projects have been accomplished downstream of the Otter Siding Road in this compartment. Best Management pratices should be observed when harvesting.

Wildlife Habitat Considerations: Favor retention of oak, and mesic conifer in hardwood stands

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of coarse textured glacial till, lacustrine sand and gravel and an end moraine of fine-textured glacial till. 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 two miles to the southeast and potential appears limited. Abandoned copper mines and crushed basalt piles are located five miles to the west. This area has not been leased before. There is no economic oil and gas production in the UP.

**Vehicle Access:** Access is from the Otter Siding Road with runs the entire length of the compartment connecting the Pike Lake Road to M-38. There are also several forest roads in varying conditions throughout the compartment.

**Survey Needs:** Some survey work will need to be done for timber harvest activities.

**Recreational Facilities and Opportunities:** The hunting opportunities in this compartment are excellent for big and small game hunting alike.

**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

Compartment 048 Year of Entry 2013

Baraga Mgt. Unit

**Brad Carlson: Examiner** 



#### Age Class Note of the second seco 70,79 00,00 10. &O. Ø, 80 80 %× Aspen Cedar Herbaceous Openland **Lowland Conifers** Lowland Mixed Forest Lowland Shrub Lowland Spruce/Fir Marsh Mixed Upland Deciduous Northern Hardwood Upland Conifers Upland Mixed Forest Upland Spruce/Fir Total



### **Table 2 – Proposed Treatment Summaries**

Baraga Mgt. Unit Compartment 048 **Total Compartment Acres: 1501** Year of Entry 2013

#### **Acres by Treatment Type**

Commercial Harvest - 459 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

		Cover Type by Harvest Method								
		/	15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	100 NO	No O	Out Out		Se R	
Lowland Conifers	s	30	0	0	0	0	0	30		
Lowland Mixed F	orest	48	0	0	0	0	0	48		
Mixed Upland De	ciduous	14	0	0	0	0	0	14	•	
Northern Hardwo	od	4	311	0	0	0	0	316		
Upland Conifers		31	0	0	0	0	0	31	•	
Upland Mixed Fo	rest	0	15	0	0	0	0	15		
Upland Spruce/F	ir	6	0	0	0	0	0	6		
	Total	133	326	0	0	0	0	459		

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#### Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 048 Year of Entry 2013

t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
23	11048023-Cut	3.0	42310 - Planted Spruce	High Density Pole	46	Harvest	Clearcut	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Harvest all species except White Pine, Cedar and Hemlock if present. Harvest operating period should be limited from Dec 1. - March 31. Specs:

Other\_

The goal of the harvest is to increase diversity and stem density and make the stand more attractive to wildlife.

Comments:

**Next** Check for adequate regeneration within 4 years of harvest completion.

<u>Steps:</u>

25 11048025-Cut 4.4 4119 - Mixed Low Density Pole Harvest Clearcut 4191 - Mixed Upland Cmpt. Review Northern Hardwoods Deciduous with Proposal Conifer

Prescription Harvest all species except White Pine, Cedar and Hemlock if present. Harvest operating period should be limited from Dec 1. - March 31. Specs:

The objective of the harvest is to increase diversity and stem density to make the stand more attractive to wildlife. Other Comments:

Next

Check for adequate regeneration with 4 years of harvest completion.

Steps:

42310 - Planted High Density Pole 46 4191 - Mixed Upland 26 11048026-Cut 3.0 Harvest Clearcut Cmpt. Review Spruce Deciduous with Proposal Conifer

Prescription Harvest all species except White Pine, Cedar and Hemlock if present. Harvest operating period should be limited from Dec 1. - March 31. Specs:

Other The objective of the harvest is to increase diversity and stem density to make the stand more attractive to wildlife.

Comments:

Check for adequate regeneration within 4 years of harvest completion. Next

Steps:

36 11048036-Cut 15.1 4319 - Mixed High Density Log 82 Harvest Single Tree Selection 4119 - Mixed Cmpt. Review **Upland Forest** Northern Hardwoods Proposal

Prescription Mark to 50 sq ba. in areas of solid hardwoods Higher residual BA are acceptable where cedar and hemlock are present. Favor oak, white pine, and hemlock where present. Harvest all species except White Pine, Cedar and Hemlock. Harvest operating period should be limited from Dec Specs: 1. - March 31.Refer to the "Complete Marker" for further marking guidelines.

Stand is marked to 50 sqft residual due to top dieback and poor quality. Stand should be managed on a 30 year rotation. **Other** 

Comments:

Next Steps:

> 38 11048038-Cut 31.3 42380 - Non Pine High Density Pole 73 Harvest Clearcut with 42380 - Non Pine Cmpt. Review Upland Conifer, Reserves Upland Conifer, Proposal Mixed Deciduous Mixed Deciduous

Prescription Harvest all species except White Pine, Cedar and Hemlock. Limit harvest operations to TRACKED MACHINERY ONLY to reduce the risk of Specs: severe rutting. Harvest operating period should be limited from Dec 1. - March 31.

Fish Div: From pre-review: Maintain a 100' buffer from the stream in either direction.

Other\_ Comments:

check for adequate regeneration within 4 years of harvest competion. Next

Steps:

Baraga Mgt. Unit s

#### Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 048 Year of Entry 2013

t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	11048005-Cut	11.0	4112 - Maple, Beech, Cherry Association	High Density Log	88	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription Mark to 70-90 sq ba. Favor oak, white pine, and hemlock where present. Refer to the "Complete Marker" for further marking guidelines. Specs:

<u>Other</u>

Comments:

**Next** 

Steps:

11048008-Cut 83.4 8

4112 - Maple, Beech, Cherry

Association

High Density Log 71 Harvest

Single Tree Selection

4112 - Maple, Beech, Cherry Association

Cmpt. Review Proposal

Prescription Mark to 70-90 sq ba. Favor oak, white pine, and hemlock where present. Refer to the "Complete Marker" for further marking guidelines. Specs:

Other

Comments:

Next Steps:

> 11048016-Cut 73.3 16

4119 - Mixed Northern Hardwoods High Density Log

Harvest

Single Tree Selection

4119 - Mixed Northern Hardwoods Cmpt. Review Proposal

Prescription Mark to 70-90 sq ba. Favor oak, white pine, and hemlock where present. Refer to the "Complete Marker" for further marking guidelines. Specs:

<u>Other</u>

Comments:

Next

Steps:

21 11048021-Cut 80.9

4112 - Maple, Beech, Cherry Association

High Density Log 92

Harvest

Single Tree Selection

4112 - Maple, Beech, Cherry Association

Cmpt. Review Proposal

Prescription Mark to 70-90 sq ba. Favor oak, white pine, and hemlock where present. Refer to the "Complete Marker" for further marking guidelines. Specs:

Other

Comments:

Next Steps:

22 11048022-Cut 13.7

4191 - Mixed **Upland Deciduous** with Conifer

High Density Pole 46

Harvest

Clearcut

4116 - Mixed N. Hardwood - Aspen Cmpt. Review Proposal

Prescription Harvest all species except White Pine, Cedar and Hemlock if present. Harvest operating period should be limited from Dec 1. - March 31. Specs:

<u>Other</u>

The objective of the harvest is to increase stem density and make the area for attractive to wildlife.

Comments:

check for adequate regeneration within 4 years of harvest completion.

<u>Next</u> Steps: Baraga Mgt. Unit

## Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 048
Year of Entry 2013

DNR DNR	SOURCE
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a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
45	11048045-Cut	47.7	6139 - Mixed Lowland Forest	High Density Pole	73	Harvest	Clearcut with Reserves	6139 - Mixed Lowland Forest	Cmpt. Review Proposal

<u>Prescription</u> Harvest all species except White Pine, Cedar and Hemlock. Limit harvest operations to TRACKED MACHINERY ONLY to reduce the risk of <u>Specs</u>: severe rutting. Harvest operating period should be limited from Dec 1. - March 31.

Fish Div: From pre-review: Maintain a 100' buffer from the stream in either direction.

Other Comments:

Next Check for adequate regeneration within 4 years of harvest completion.

Steps:

47 11048047-Cut 21.6 4112 - Maple, High Density Log 67 Harvest Single Tree Selection 4112 - Maple, Cmpt. Review Beech, Cherry Association Association

<u>Prescription</u> Mark to 70-90 sq ba. Favor oak, white pine, and hemlock where present. Refer to the "Complete Marker" for further marking guidelines.

Specs:

Other Comments:

Next Steps:

48 11048048-Cut 29.9 6128 - Lowland High Density Pole 91 Harvest Clearcut with 6128 - Lowland Cmpt. Review Coniferous, Mixed Proposal Deciduous Deciduous

<u>Prescription</u> Harvest all species except White Pine, Cedar and Hemlock. Limit harvest operations to TRACKED MACHINERY ONLY to reduce the risk of <u>Specs</u>: severe rutting. Harvest operating period should be limited from Dec 1. - March 31.

Other Comments:

Next Check for adequate regeneration within 4 years of harvest completion.

Steps:

51 11048051-Cut 17.6 4112 - Maple, High Density Log 76 Harvest Single Tree Selection 4112 - Maple, Cmpt. Review Beech, Cherry Proposal Association

<u>Prescription</u> Mark to 70-90 sq ba. Favor oak, white pine, and hemlock where present. Refer to the "Complete Marker" for further marking guidelines. <u>Specs:</u>

<u>Other</u>

Comments: Next

Steps:

Total Treatment

Acreage Proposed: 435.9

S t a		ı	Baraga Mgt. Unit	Table 4 7		ents Prescri ng Factor	ibed with	Compartment: 048 Year of Entry 2013	DNR MICHIGAN
n d	Treatment Name	Acres	s Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
43	11048043-Cut	2.4	4119 - Mixed Northern Hardwoods	High Density Log	94	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal

Prescription Specs: Mark to 70-90 sq ba. Favor oak, white pine, and hemlock where present. Areas along old grade have a high BA of aspen and balsom and should be marked to a lower residual BA. Refer to the "Complete Marker" for further marking guidelines.

**Other** 

Comment:

<u>Next</u> Steps:

Limiting Factor and No

4D: Low volume (small acreage)

Treatment Reason

**Total Treatment** 

2.4 Acreage Proposed:

11.9 9.6 6.4 11.6 8.5 98.1	Stand Age Uneven Age 72 72 Uneven Age 12 Uneven Age Uneven Age 54	BA Range  51-80  51-80  51-80  81-110  81-110  51-80	General Comments:  Cut in 2006 as part of "Pine Marten Hardwoods"  Cut in 2000 as part of "Lopi's Legacy"  was clearcut in 1999, but is now forested.  Was cut in 2000 with "Lopi's Legacy".  cut in 2003 with "Otter Siding Road North"  Old fence line running north-south through stand. Area may have been attempted to be farmed in the early part of the century
9.6 6.4 11.6 8.5 98.1	72 72 Uneven Age 12 Uneven Age Uneven Age	51-80 51-80 81-110 81-110	Cut in 2000 as part of "Lopi's Legacy"  was clearcut in 1999, but is now forested.  Was cut in 2000 with "Lopi's Legacy".  cut in 2003 with "Otter Siding Road North"  Old fence line running north-south through stand. Area may
6.4 11.6 8.5 98.1	72 Uneven Age 12 Uneven Age Uneven Age	51-80 81-110 81-110	was clearcut in 1999, but is now forested.  Was cut in 2000 with "Lopi's Legacy".  cut in 2003 with "Otter Siding Road North"  Old fence line running north-south through stand. Area may
8.5 98.1 37.9	Uneven Age  12  Uneven Age  Uneven Age	81-110 81-110 81-110	was clearcut in 1999, but is now forested.  Was cut in 2000 with "Lopi's Legacy".  cut in 2003 with "Otter Siding Road North"  Old fence line running north-south through stand. Area may
8.5 98.1 37.9	12 Uneven Age Uneven Age	81-110 81-110	was clearcut in 1999, but is now forested.  Was cut in 2000 with "Lopi's Legacy".  cut in 2003 with "Otter Siding Road North"  Old fence line running north-south through stand. Area may
98.1 37.9	Uneven Age Uneven Age	81-110	Was cut in 2000 with "Lopi's Legacy".  cut in 2003 with "Otter Siding Road North"  Old fence line running north-south through stand. Area may
37.9	Uneven Age	81-110	cut in 2003 with "Otter Siding Road North"  Old fence line running north-south through stand. Area may
			Old fence line running north-south through stand. Area may
14.0	54	51-80	Old fence line running north-south through stand. Area may have been attempted to be farmed in the early part of the century
			(still open on the 1938 photos).
30.1	Uneven Age	51-80	
17.7	12		clearcut in 1999 with "Lopi's Legacy".
10.2	100	51-80	
73.3	Uneven Age	111-140	cut in 2000 with "Lopi's Legacy".
34.2	Uneven Age	51-80	
58.3	Uneven Age	51-80	cut in 2003 with "Otter Road North".
21.0	Uneven Age	81-110	Cut in 2000 with "Lopi's Legacy".
60.3	Uneven Age	111-140	Cut in 1997 with "West Branch Hdwds"
13.7	Uneven Age	51-80	
	46	51-80	
	88.3 21.0	Uneven Age Uneven Age Uneven Age Uneven Age Uneven Age Uneven Age	8.3 Uneven Age 51-80 21.0 Uneven Age 81-110 30.3 Uneven Age 111-140 3.7 Uneven Age 51-80

5 - Forested Stands

Baraga Mgt. Unit

Compartment: 048

s t				5 – For	rested Sta	rinds Compartment: 048 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	4119 - Mixed Northern Hardwoods	Low Density Pole	4.4	33	1-50	
26	42310 - Planted Spruce	High Density Pole	3.0	46	51-80	
27	6139 - Mixed Lowland Forest	High Density Pole	9.0	Uneven Age	51-80	
28	4112 - Maple, Beech, Cherry Association	High Density Pole	193.0	Uneven Age	81-110	North half cut in 2003 with "Otter Siding Road North" and South half cut in 2003 with "Otter Siding Mix".
29	6132 - Mixed Lowland Forest with Cedar	High Density Log	11.2	Uneven Age	81-110	
30	4115 - Y.Birch, Hemlock NH	High Density Log	19.1	Uneven Age	81-110	Cut in 1997 with "West Branch Hdwds".
31	4119 - Mixed Northern Hardwoods	High Density Log	108.1	Uneven Age	81-110	cut in 1997 with "West Branch Hdwds"
32	4319 - Mixed Upland Forest	High Density Pole	25.5	Uneven Age	51-80	
33	4319 - Mixed Upland Forest	High Density Pole	18.5	Uneven Age	81-110	
35	6139 - Mixed Lowland Forest	Medium Density Pole	69.5	Uneven Age	51-80	
36	4319 - Mixed Upland Forest	High Density Log	15.1	Uneven Age	81-110	
37	6132 - Mixed Lowland Forest with Cedar	High Density Sapling	71.5	104	1-50	cut in 2004 with "Otter Swamp".
38	42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Pole	34.7	Uneven Age	81-110	
40	4119 - Mixed Northern Hardwoods	High Density Log	15.9	Uneven Age	111-140	
43	4119 - Mixed Northern Hardwoods	High Density Log	2.4	Uneven Age	111-140	
44	4119 - Mixed Northern Hardwoods	High Density Pole	17.1	Uneven Age	51-80	Cut in 2007 with "Otter Siding Mix"
45	6139 - Mixed Lowland Forest	High Density Pole	47.7	Uneven Age	81-110	
47	4112 - Maple, Beech, Cherry Association	High Density Log	21.6	67	141-170	
	Cherry Association	Log				

5 - Forested Stands

s t	Barag	Baraga Mgt. Unit			rested Stands	Compartment: 048 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
48	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	36.7	Uneven Age	81-110	
49	6120 - Lowland Cedar	High Density Pole	31.5	Uneven Age	81-110	
50	4119 - Mixed Northern Hardwoods	High Density Log	30.4	Uneven Age	81-110	cut in 2007 with "Otter Siding Mix".
51	4112 - Maple, Beech, Cherry Association	High Density Log	17.6	Uneven Age	81-110	Cut in 1999 with "Otter Siding Block" 11-011-98-01

#### 6 - Nonforested Stands

Compartment: 048 Year of Entry: 2013



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	622 - Lowland Shrub	13.5	N\A	Unspecified	
7	623 - Emergent Wetland	8.8	N\A	Unspecified	
9	623 - Emergent Wetland	5.7	N\A	Unspecified	
14	623 - Emergent Wetland	15.9	N\A	Unspecified	
18	622 - Lowland Shrub	1.2	N\A	Unspecified	
24	622 - Lowland Shrub	4.6	N\A	Unspecified	
34	622 - Lowland Shrub	2.6	N\A	Unspecified	
39	622 - Lowland Shrub	3.4	N\A	Unspecified	
41	622 - Lowland Shrub	8.9	N\A	Unspecified	
42	3102 - Grass	8.8	Natural Regen	Aspen	Recently Harvested (Fall/Winter 2010/2011). Aspen Management Objective.
46	623 - Emergent Wetland	3.7	N\A	Unspecified	

Baraga Mgt. Unit

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#### 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

Baraga Mgt. Unit

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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.

Conservation Area	Туре	Description  ERA = Ecological Reference Area  HCVA = High Conservation Value Area  SCA = Special Conservation Area					
SCA	Cold Water Stream	stocked trout populations and those of other coldw year to year. Coldwater streams in Michigan typica	Such streams are established by Director's action and				





