



# Report 1 – Compartment Review Presentation

Baraga Forest Management Unit

Compartment 64

Entry Year 2015

Acreage: 1,225

County Ontonagon

Management Area: Central Houghton

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**Revision Date:** 07/17/2013

**Stand Examiner:** Jason Mittlestat

**Legal Description:**

Ontonagon County, Bohemia Township.  
T51N R37W Sec: 24, 25, 35, 36

**Identified Planning Goals:**

Central Houghton (4.6)  
To maintain a healthy; sustainable forest with special consideration to wildlife habitat, fisheries habitat, and recreational needs while protecting the water resources.

**Soil and topography:**

The soils are fine sand interspersed with veins of heavy red clay. The terrain is level on the south changing to rolling hills to steep hills with well-defined to deep spring fed gullies in the north.

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

The adjacent lands are a mixture of small ownerships, forest industry and USFS. Much of the adjoining land is managed for forest products. The small private is used mostly for recreation and hunting.

**Unique, Natural Features:**

None identified.

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

The former Mineral Range Railroad grade (Mass City to Keweenaw Bay) crosses this compartment.

**Special Management Designations or Considerations:**

None listed.

**Watershed and Fisheries Considerations:**

Black Creek and its tributaries are trout streams.

**Wildlife Habitat Considerations:**

Compartment 64 is found in the Central Houghton Management Area on Dissected Moraines in Central Houghton County. The major forest cover types include Northern Hardwoods, Aspen, and Mixed Lowland Conifer. Some of the most significant wildlife management issues in the management area are: mesic conifers; mature forest; habitat fragmentation; coarse woody debris; and retention or development of large living and dead standing trees (for cavities). This management area represents almost 15% of the WUP State Forest hemlock resource and is one of the few Mas where the species reliably regenerates and recruits.

The following have been identified, as featured species for the Central Houghton Management Area:  
Blackburnian Warbler, Pileated Woodpecker, and Northern Goshawk.

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

Surface sediments consist of lacustrine (lake) clay, silt, 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. Abandoned copper mines are located one mile to the northwest. The compartment has not been previously leased for metallic mineral development, but State lands to the northwest were recently leased. The State leased part of Section 35 as sand and gravel lease NM-146 and potential appears to be good. There is no economic oil and gas production in the UP.

**Vehicle Access:**

Access is good through most of the compartment. Access is from Railroad Grade road and M-38.

**Survey Needs:**

Survey work will be needed to facilitate timber harvest activities.

**Recreational Facilities and Opportunities:**

There are no developed recreational facilities in the compartment. The USFS has a trail head along the southern edge of the compartment.

**Fire Protection:**

This is not a fire prone area.

**Additional Compartment Information:**

Ontonagon County has a mineral lease for a sand pit in the south west of the compartment.

**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**

Report 2 – 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	9	0	0	51	0	0	0	0	0	0	0	0	0	0	60
Hemlock	0	0	0	0	0	0	26	0	0	0	0	0	0	97	123
Herbaceous Openland	22	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Jack Pine	15	0	0	0	4	0	0	0	0	0	0	0	0	0	19
Mixed Upland Deciduous	0	0	0	71	0	0	6	0	0	0	0	0	0	42	118
Northern Hardwood	0	0	0	31	0	0	51	0	0	0	0	0	0	767	849
Sand, Soil	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Urban	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
<b>Total</b>	<b>80</b>	<b>0</b>	<b>0</b>	<b>152</b>	<b>4</b>	<b>0</b>	<b>83</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>906</b>	<b>1226</b>



# Report 3 – Proposed Treatment Summaries

**Baraga Mgt. Unit**  
**Year of Entry 2015**

**Compartment 064**  
**Total Compartment Acres: 1226**

### Acres by Treatment Type

Commercial Harvest - 263    Tree Planting - 0    Other - 0  
 Habitat Cut - 0    Opening Maintenance - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Northern Hardwood	0	240	0	0	0	0	240
Upland Mixed Forest	0	23	0	0	0	0	23
<b>Total</b>	<b>0</b>	<b>263</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>263</b>



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	11064002-Cut	96.3	4115 - Y.Birch, Hemlock NH	High Density Log	99	111-140	Harvest	Single Tree Selection	4115 - Y.Birch, Hemlock NH	Cmpt. Review Proposal
<p><u>Prescription</u> Selectively thin hardwoods to 70-90 sqft of BA. Do not harvest oak, hemlock, white pine and cedar. Oak <u>Specs:</u> 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."</p> <p><u>Other</u> Retention for this stand will be greater than 3% and will consist of tree species of the dominant cover type and reserve tree species. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										
7	11064007-Cut	143.4	4119 - Mixed Northern Hardwoods	High Density Log	99	111-140	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal
<p><u>Prescription</u> Selectively thin hardwoods to 70-90 sqft of BA. Do not harvest oak, hemlock, white pine and cedar. Oak <u>Specs:</u> 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."</p> <p><u>Other</u> Some change in the sale area may occur with wet areas. Retention for this stand will be greater than 3% and will consist of tree species of the <u>Comments:</u> dominant cover type and reserve tree species.</p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										
19	11064019-Cut	23.2	4312 - Hemlock, Mixed Deciduous	High Density Log	99	141-170	Harvest	Single Tree Selection	4312 - Hemlock, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u> Selectively thin hardwoods to 70-90 sqft of BA. Do not harvest oak, hemlock, white pine and cedar. Oak <u>Specs:</u> 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." Mark to encourage hemlock regeneration. Do not harvest in thick hemlock patches.</p> <p><u>Other</u> Retention for this stand will be greater than 3% and will consist of tree species of the dominant cover type and reserve tree species. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										

**Total Treatment  
Acreage Proposed: 262.9**



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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!

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Proposed  
Start Date: #Type!

Limiting Factor

**Total Treatment  
Acreage Proposed: 0**

Report 6 – Out of YOE – Treatments  
Prescribed with No Limiting Factor

Year of Entry: 2015



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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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Prescription  
Specs:

Other  
Comments:

Next  
Steps:

Proposed  
Start Date: #Type!

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**Total Treatment  
Acreage Proposed: 0**

## Report 7 – Site Conditions

Baraga Mgt. Unit  
Jason Mittlestat : Examiner

Compartment 064  
Year of Entry 2015

### Availability for Management

Total Acres	Acres			Dominant Site Conditions				
	Available	Not Available		No	3L	3J	2G	2F
60	60		<b>Aspen</b>	60				
122	33	89	<b>Hemlock</b>	33	68	3	9	8
19	19		<b>Jack Pine</b>	19				
118	89	29	<b>Mixed Upland Deciduous</b>	89		29		
847	797	50	<b>Northern Hardwood</b>	797	0	50		0
1,167	999	168	Total Forested Acres	999	68	82	9	8
	86%	14%	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
003	Not Available	3J: Water quality / BMPs (stream, river, or lake)	25				
<b>Comments:</b> riparian corridor							
004	Not Available	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	3				
<b>Comments:</b> M-38 hwy							
005	Not Available	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	5				
<b>Comments:</b> m-38 hwy							

Report 7 – Site Conditions

Baraga Mgt. Unit

Compartment 064

Jason Mittlestat : Examiner

Year of Entry 2015

006	Not Available	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	3	
<b>Comments:</b> county road				
007	Not Available	5D: Unproductive Forest Land	17	
<b>Comments:</b> old air field				
008	Not Available	5D: Unproductive Forest Land	24	
<b>Comments:</b> sand pit				
009	Not Available	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	4	
<b>Comments:</b> REA powerline				
011	Not Available	3J: Water quality / BMPs (stream, river, or lake)	43	
<b>Comments:</b>				
013	Not Available	3L: Other wildlife concerns	59	2G: Too wet (sensitive soils, does not include access issues)
<b>Comments:</b> WLD does not permit the harvest of Hemlock stands.				

## Report 7 – Site Conditions

Baraga Mgt. Unit  
Jason Mittlestat : Examiner

Compartment 064  
Year of Entry 2015

015	<b>Not Available</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	11		
<b>Comments:</b>					
016	<b>Not Available</b>	<b>3L: Other wildlife concerns</b>	10	2F: Too steep	2G: Too wet (sensitive soils, does not include access issues)
<b>Comments:</b>					
WLD does not permit the harvest of Hemlock stands.					
017	<b>Not Available</b>	<b>2F: Too steep</b>	8	3L: Other wildlife concerns	2G: Too wet (sensitive soils, does not include access issues)
<b>Comments:</b>					
WLD does not permit the harvest of Hemlock stands.					
023	<b>Not Available</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	3	2F: Too steep	3L: Other wildlife concerns
<b>Comments:</b>					
WLD does not permit the harvest of Hemlock stands.					
026	<b>Not Available</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	9	3L: Other wildlife concerns	
<b>Comments:</b>					
WLD does not permit the harvest of Hemlock stands.					

**Report 8 – 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.

<b>SCA Name</b>	<b>SCA Category</b>	<b>Detail Type</b>	<b>Recommendation</b>	<b>Acres</b>
<b>Black Creek</b> <b>Comments</b>	Habitat Areas or Corridors	Habitat Corridor	<b>SCA</b>	
<b>Simar Sand Pit</b> <b>Comments</b> Ontonagon County Road Comm.	Mineral Resource Area	Sand or Gravel Pit	<b>SCA</b>	



## Report 9 – 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	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
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.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.

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## Baraga Mgt. Unit

## Report 10 – Forested Stands

Compartment: 064  
Year of Entry: 2015

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4191 - Mixed Upland Deciduous with Conifer	High Density Log	42.0	Uneven Age	141-170	Riparian Corridor with steep slopes.
4115 - Y.Birch, Hemlock NH	High Density Log	96.3	Uneven Age	111-140	Cut.
4119 - Mixed Northern Hardwoods	High Density Log	31.3	Uneven Age	51-80	
4115 - Y.Birch, Hemlock NH	High Density Log	19.4	Uneven Age	51-80	
4119 - Mixed Northern Hardwoods	High Density Log	25.3	Uneven Age	111-140	Drainage
4115 - Y.Birch, Hemlock NH	High Density Log	138.1	Uneven Age	81-110	Riparian Corridor.
4119 - Mixed Northern Hardwoods	High Density Log	143.4	Uneven Age	111-140	Last cut in 1997 as Simar Hdwds. Ready for treatment again.
4112 - Maple, Beech, Cherry Association	High Density Log	31.6	Uneven Age	51-80	
4112 - Maple, Beech, Cherry Association	High Density Log	71.7	Uneven Age	51-80	
4119 - Mixed Northern Hardwoods	High Density Log	9.2	Uneven Age	81-110	Drainage
42350 - Upland Hemlock	High Density Log	15.2	Uneven Age	111-140	Riparian Protection.
4119 - Mixed Northern Hardwoods	High Density Log	13.7	Uneven Age	51-80	
4119 - Mixed Northern Hardwoods	High Density Log	186.8	Uneven Age	81-110	
42350 - Upland Hemlock	High Density Log	58.9	Uneven Age	200+	Hemlock and cedar stand.
4119 - Mixed Northern Hardwoods	High Density Pole	20.0	60	81-110	Very brushy with balsam, larger balsam and spruce are dead or dying from budworm.
42350 - Upland Hemlock	High Density Pole	16.6	60	81-110	Steep slopes with wet bottoms. Riparian corridor. The large spruce and balsam are dead/ dying from budworm.
42350 - Upland Hemlock	High Density Pole	9.4	60	81-110	Steep slopes with wet bottoms. Riparian corridor. The spruce and balsam are dead / dying frm budworm.
4119 - Mixed Northern Hardwoods	High Density Pole	20.1	60	51-80	

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## Baraga Mgt. Unit

## Report 10 – Forested Stands

Compartment: 064  
Year of Entry: 2015

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	4312 - Hemlock, Mixed Deciduous	High Density Log	23.2	Uneven Age	141-170	The western fringe was cut with 11-012-95-01. Will have to stay out of thick hemlock areas. Mark hardwoods to encourage hemlock regeneration. DNR mark.
20	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	6.0	34		MTU Simar Standing Timbe Trial. Larch planted in 1979. Very poor larch stocking.
21	4119 - Mixed Northern Hardwoods	High Density Log	11.3	60	81-110	Poor quality. Thin stocking with nice oak and pine underneath.
23	4119 - Mixed Northern Hardwoods	High Density Pole	12.1	34	1-50	MTU Herbicide Trial Area 1978-2. Larch test plantation, planted in 1979. Very poor larch stocking/ failed. Could be called a M4 stand.
24	4139 - Aspen, Mixed Deciduous	High Density Pole	46.3	34		
25	4139 - Aspen, Mixed Deciduous	High Density Pole	4.7	34		
27	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	39.3	38		The spruce and balsam are dieing from budworm.
28	4112 - Maple, Beech, Cherry Association	High Density Pole	18.5	35	51-80	MTU Dept of Energy plantation study 1978. Was supposed to of had black locust planted. M3 stand. Failed plantaion from looks.
30	4130 - Aspen	High Density Sapling	9.2	7		Two aged aspen due to poor cutting during the timbersale.
33	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	5.6	60	81-110	M-38 ROW
34	42120 - Planted Jack Pine	High Density Sapling	14.8	5		Old Simar Sand Pit. Planted to larch and jack pine.
35	42120 - Planted Jack Pine	High Density Pole	3.9	48		
36	4199 - Other Mixed Upland Deciduous	High Density Pole	25.6	34		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
22	122 - Road/Parking Lot	3.2	No	Unspecified	county road
26	710 - Sand, Soil	23.6	No	Unspecified	sand pit
29	3102 - Grass	4.2	No	Unspecified	buired powerline
31	3102 - Grass	17.4	No	Unspecified	Simar Air Field
32	122 - Road/Parking Lot	4.5	No	Unspecified	M-38 Hwy
37	122 - Road/Parking Lot	3.4	No	Unspecified	M-38 HWY

# Cover Type & Treatment Map

Compartment: 064  
 T50N R37W  
 04 05  
 T51N R36W  
 30 31  
 T51N R37W  
 24 25 26 35 36  
 County: Ontonagon  
 Unit: Baraga  
 YOE: 2015  
 Acres: 1,226 GIS Calculated  
 Examiner: Jason Mittlestat  
 Map Revised: 05/22/2013  
 Map Phase: Pre-Review

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

24  
 25  
 35 36

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DEPARTMENT OF NATURAL RESOURCES  
DNR  
MICHIGAN

**Legend**

- DNR Survey Corners
- Miris Corners
- Highway
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Stream
- Intermittent Stream
- Lakes and Rivers
- Pipeline
- Powerline
- State Forest Land

**Treatments**

- Selection (Group, Single Tree)

**Forest Stands**

**Level 3**

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest

**Non-Forest Stands**

**Level 3**

- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 710 - Sand, Soil





