DNR DNR

Report 1 – Compartment Review Presentation

Baraga Forest Management Unit

Compartment 38
Entry Year 2015

Acreage: 1,593
County Houghton

Management Area: Central Houghton

Revision Date: 07/17/2013

Stand Examiner: Jason Mittlestat

Legal Description:

Houghton County, Portage Township.

T52N R35W Sec: 25, 26, 27

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:

Munising loamy fine sand, Liminga fine sand, Kalkaska sand, Yalmer loamy sand, Pelkie loamy fine sand, Au Gres sand, Halfaday sand, Assinins sand, Skanee loamy sand. The topography is level to rolling with steep slopes along the streams.

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

The surrounding ownership is a mix of forest industry and small private owners. Adjacent lands are managed for timber and recreation.

Unique, Natural Features:

Bear Creeks and the North Branch Otter River run through the compartment.

Archeological, Historical, and Cultural Features:

The Donken-Tapiola Road was a former logging railroad.

Special Management Designations or Considerations:

None listed.

Watershed and Fisheries Considerations:

The compartment is within the Otter River watershed. North Branch Otter River, North Branch Bear Creek and South Branch Bear Creek are all top quality trout streams.

Wildlife Habitat Considerations:

Compartment 38 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; course 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 coarse-textured and minor lacustrine (lake) sand and gravel and fine-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 just to the south and potential appears to be good. Abandoned copper mines and crushed basalt piles are located six miles to the west. The compartment has not been leased previously. Limestone outliers are located two miles to the southeast. There is no economic oil and gas production in the UP.

Vehicle Access:

Access is good through most of the compartment. The Horoscope Hill road and Otter River road provide most of the access.

Survey Needs:

Survey work will be needed to facilitate timber harvest activities.

Recreational Facilities and Opportunities:

The Donken-Tapiola road is part of the Twin Lakes to Baraga ORV connector route.

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
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

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Compartment 038 Year of Entry 2015

Baraga Mgt. Unit

Jason Mittlestat : Examiner



	Age Class															
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Aspen	142	72	23	0	0	0	0	0	33	19	0	0	0	0	288	
Lowland Conifers	0	0	0	0	0	0	0	0	0	221	0	0	0	0	221	
Mixed Upland Deciduous	0	0	0	0	0	0	7	0	0	0	0	0	0	10	18	
Northern Hardwood	0	0	0	0	0	0	45	0	0	232	0	0	0	665	942	
Upland Mixed Forest	0	0	0	0	0	0	0	0	115	0	0	0	0	0	115	
Urban	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
Total	151	72	23	0	0	0	53	0	148	472	0	0	0	675	1593	



Report 3 – Proposed Treatment Summaries

Baraga Mgt. Unit Year of Entry 2015

Compartment 038 **Total Compartment Acres: 1593**

Acres by Treatment Type

Commercial Harvest - 541

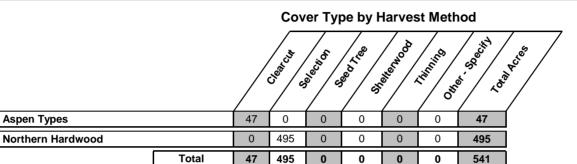
Aspen Types

Tree Planting - 0

Other - 0

Habitat Cut - 0

Opening Maintenance - 0



Report 4 -- Treatments Prescribed with No Limiting Factor

Compartment: 038 Year of Entry 2015

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a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	11038001-Cut	13.8	4115 - Y.Birch, Hemlock NH	High Density Log	99	111-140	Harvest	Single Tree Selection	4115 - Y.Birch, Hemlock NH	Cmpt. Review Proposal

Specs:

S

Prescription Selectively thin hardwoods to 70-90 sqft of BA. Do not harvest oak, hemlock, white pine and cedar where present. Also, retain some large seed producing Ash and Black Cherry. 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".

Other

Retention for this stand will be greater than 3% and will consist of tree species of the dominant cover type and reserve tree species.

Comments:

Next Steps:

Proposed

10/01/2012 Start Date:

11038002-Cut 57.4 4115 - Y.Birch, High 111-140 Harvest Single Tree 4115 - Y.Birch, Cmpt. Review Hemlock NH Selection Hemlock NH Proposal Density Log

Retention for this stand will be greater than 3% and will consist of tree species of the dominant cover type and reserve tree species.

Specs:

Prescription Selectively thin hardwoods to 70-90 sqft of BA. Do not harvest oak, hemlock, white pine and cedar where present. Also, retain some large seed producing Ash and Black Cherry. 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".

Other

Comments:

Next Steps:

Proposed

Start Date: 10/01/2014

11038005-Cut 97.7 4112 - Maple, High 111-140 Harvest Single Tree 4112 - Maple, Cmpt. Review Beech, Cherry Beech, Cherry Density Log Selection Proposal Association Association

Specs:

Prescription Selectively thin hardwoods to 70-90 sqft of BA. Do not harvest oak, hemlock, white pine and cedar where present. Also, retain some large seed producing Ash and Black Cherry. 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".

Other

Retention for this stand will be greater than 3% and will consist of tree species of the dominant cover type and reserve tree species.

Comments:

Next Steps:

Proposed

10/01/2014 Start Date:

High 207.7 4119 - Mixed 111-140 Single Tree 4119 - Mixed Cmpt. Review 11038006-Cut 99 Harvest Northern Hardwoods Density Log Selection Northern Hardwoods Proposal

Prescription Selectively thin hardwoods to 70-90 sqft of BA. Do not harvest oak, hemlock, white pine and cedar where present. Also, retain some large seed producing Ash and Black Cherry. Oak should be released on 3 sides to an average BA of 60 sqft. Where 30 sqft or more of hemlock occurs thin Specs: to less than 100 sqft of BA. Follow all guidelines set forth in "The Complete Marker".

<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. Comments:

Next Steps:

Proposed

10/01/2014 Start Date:

Report 4 -- Treatments Prescribed with No Limiting Factor

Compartment: 038
Year of Entry 2015

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a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12	11038012-Cut	30.0	4136 - Aspen, Mixed Conifer	High Density Log	82		Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal

Prescription Harvest all species down to 2 inches DBH except red oak, hemlock, white pine, yellow birch and cedar if present.

Specs:

S

Other Maintain 300' from the Bear Creek for riparian concerns. Retention for this stand will be greater than 3% and will consist of reserve tree species

Comments: and the riparian buffer.

Next Check for adequate regeneration within 5 years of harvest completion.

Steps:

<u>Proposed</u>

Start Date: 10/01/2014

15 11038015-Cut 111.5 4119 - Mixed High 99 111-140 Harvest Single Tree 4119 - Mixed Cmpt. Review Northern Hardwoods Density Log Selection Northern Hardwoods Proposal

<u>Prescription</u> Selectively thin hardwoods to 70-90 sqft of BA. Do not harvest oak, hemlock, white pine and cedar where present. Also, retain some large seed <u>Specs:</u> producing Ash and Black Cherry. 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".

Other Retention for this stand will be greater than 3% and will consist of tree species of the dominant cover type and reserve tree species.

Comments:

<u>Next</u> Steps:

Proposed

Start Date: 10/01/2014

27 11038027-Cut 16.7 4136 - Aspen, High 91 Harvest Clearcut with 4136 - Aspen, Cmpt. Review Mixed Conifer Density Reserves Mixed Conifer Proposal

Prescription Harvest all species down to 2 inches DBH except red oak, hemlock, black cherry, white pine and cedar.

Pole

Specs:

Other There is a wet area through the stand that might have to be removed if it is deemed too wet to operate in. Maintain 300' from the Bear Creek

<u>Comments:</u> and Otter River for riparian concerns and to satify retention guidelines.

Next Check for adequate regeneration within 5 years of harvest completion.

Steps:

Proposed Start Date: 10/01/2014

29 11038029-Cut 6.4 4119 - Mixed High 99 111-140 Harvest Single Tree 4119 - Mixed Cmpt. Review Northern Hardwoods Density Log Selection Northern Hardwoods Proposal

<u>Prescription</u> Selectively thin hardwoods to 70-90 sqft of BA. Favor oak, hemlock, white pine and cedar where present. Oak should be released on 3 sides to <u>Specs:</u> an average BA of 60 sqft. Where 30 sqft or more of hemlock occurs thin to no less than 100 sqft of BA. Follow all guidelines set forth in "The

Complete Marker".

Other Retention for this stand will be greater than 3% and will consist of tree species of the dominant cover type and reserve tree species.

Comments:

Next Steps:

Proposed

Start Date: 10/01/2014

Total Treatment

Acreage Proposed: 541.4

Baraga Mgt. Unit Report 5 -- Treatments Prescribed with Compartment: 038 a Limiting Factor s Year of Entry 2015 t **Treatment** Acres CoverType Size Stand ВА **Treatment Treatment Cover Type Approval** n Method Objective Status Name Density Age Range Type #Type! **Prescription** Specs: Other Comment: **Next** Steps: Proposed #Type! Start Date:

Total Treatment
Acreage Proposed:

Limiting Factor

0

Report 6 - Out of YOE - Treatments **Prescribed with No Limiting Factor**

Year of Entry: 2015

Cover Type Objective Treatment **Treatment** Acres CoverType Stand ВА **Treatment Approval** Status Method Name Density Range Туре Age

Prescription

Specs:

<u>Other</u>

Comments:

Next Steps:

Proposed Start Date:

#Type!

Total Treatment Acreage Proposed:

0

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Compartment 038
Year of Entry 2015

Availa	ability for I	Vanagement					
Total	Acres	Acres		Domina	nt Site	Cond	ditions
Acres	Available	Not Available		No	5C	3J	2F
288	274	14	Aspen	274		14	
219	3	217	Lowland Conifers	3		217	
18	7	10	Mixed Upland Deciduous	7			10
940	937	4	Northern Hardwood	918	19	1	3
115		115	Upland Mixed Forest			115	
1,581	1,221	360	Total Forested Acres	1,202	19	347	13
	77%	23%	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.

	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9				
	Comments: This area of the sta	nd had a lot of aspen removed	d.				
004	Not Available	3J: Water quality / BMPs (stream, river, or lake)	9	2G: Too wet (sensitive soils, does not include access issues)			
(Comments:						
006	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10				
	Comments:						
L	Low stocking due to	heavy aspen removal					

Report 7 – Site Conditions

Baraga Mgt. Unit

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Compartment 038 Year of Entry 2015

007	Not Available	3J: Water quality / BMPs (stream, river, or lake)	89	
	omments: otter river corridor			
800	Not Available	3J: Water quality / BMPs (stream, river, or lake)	27	
	omments: etter river corridor			
013	Not Available	3J: Water quality / BMPs (stream, river, or lake)	3	
	omments: tter river corridor			
014	Not Available	3J: Water quality / BMPs (stream, river, or lake)	1	
	omments: tter river corridor			
016	Not Available	3J: Water quality / BMPs (stream, river, or lake)	222	
	omments: tter river watershed	d		
018	Not Available	2F: Too steep	13	3J: Water quality / BMPs (stream, river, or lake)
С	omments:			

Compartment: 038 Year of Entry: 2015



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.

SCA Name	SCA Category	Detail Type	Recommendation Acres
Bruno Creek Comments	Concentrated Recreation Area	Boat Access Site	SCA
Clear Lake & Horseshoe Lake Comments	Concentrated Recreation Area	Boat Access Site	SCA
Emily Lake Comments	Concentrated Recreation Area	Boat Access Site	SCA
Greenier Creek Comments	Concentrated Recreation Area	Boat Access Site	SCA
Otter River Tribs Comments	Concentrated Recreation Area	Boat Access Site	SCA
Pike Lake Access Site Comments	Concentrated Recreation Area	Boat Access Site	SCA
Sandy Lake Comments	Concentrated Recreation Area	Boat Access Site	SCA
W. Branch Otter River Comments	Concentrated Recreation Area	Boat Access Site	SCA
Emily Lake SFCG Comments	Concentrated Recreation Area	State Forest Campground	SCA
Bear Creek Comments Trout Stream	Habitat Areas or Corridors	Habitat Corridor	SCA

Compartment: 038
Year of Entry: 2015



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.

SCA Name	SCA Category	Detail Type	Recommendation Acres
Otter River Comments	Habitat Areas or Corridors	Habitat Corridor	SCA

Compartment: 038 Year of Entry 2015



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.

Conservation Area	Туре	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area						
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxyg stocked trout populations and those of other coldwater fi year to year. Coldwater streams in Michigan typically procontributions of groundwater to their stream flows. Such designated as trout resources by Fisheries Order 210.	ish species (e.g., slimy sculpin) to persist from ovide these conditions due to substantial						

S				Report 10 -	- Forested	d Stands Compartment: 038 Year of Entry: 2015		
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:		
1	4115 - Y.Birch, Hemlock NH	High Density Log	13.8	99	111-140	Last cut in 1997. Move up start time to FY 13 and cut with Cmpt 40.		
2	4115 - Y.Birch, Hemlock NH	High Density Log	57.4	Uneven Age	111-140	Last cut in 1997. Use the road on the west side of the stand for the boundary.		
3	4115 - Y.Birch, Hemlock NH	High Density Pole	5.8	Uneven Age	81-110	Poor quality and poor stocking. Put on rotation with the stand to the east.		
5	4112 - Maple, Beech, Cherry Association	High Density Log	106.7	Uneven Age	111-140	The ends of the fingers will have to be removed from the treatment area because of lots of A3 and low BA's.		
6	4119 - Mixed Northern Hardwoods	High Density Log	217.9	99	111-140	Bean Can Hdwds cut in 1997.		
7	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	220.5	91	1-50	Riparian Corridor. Bear Creek and Tribs.		
8	4112 - Maple, Beech, Cherry Association	High Density Pole	42.1	60	81-110	Moo Junice Hdwd, cut in 2006. Lots of A3 in the understory. Will most likely not be ready in 2025.		
9	4112 - Maple, Beech, Cherry Association	High Density Pole	3.3	60	111-140	Move start date to cut with compartment 40		
10	4119 - Mixed Northern Hardwoods	High Density Pole	59.7	Uneven Age	81-110	Moo Juice Hdwd cut in 2006. Look to cut in 2025. Some patches of thick A3 understory.		
11	4130 - Aspen	High Density Sapling	7.5	16		Brown Ground cut 1997.		
12	4136 - Aspen, Mixed Conifer	High Density Log	32.6	82		Budworm has killed most of the spruce, the aspen is falling down.		
13	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	7.4	60	111-140	Look at in 2025 to see if it can be cut with "Moo Juice". Very poor quality timber.		
14	4130 - Aspen	High Density Sapling	23.2	23		"Brown Ground" cut in 1997.		
15	4119 - Mixed Northern Hardwoods	High Density Log	111.5	Uneven Age	111-140	"Brown Ground" cut in 1997.		
16	4115 - Y.Birch, Hemlock NH	High Density Pole	139.9	Uneven Age	81-110	"Dusty Flames" Cut 2009.		
17	4130 - Aspen	High Density Sapling	7.6	16		"Brown Ground" Cut in 1997.		
18	4199 - Other Mixed Upland Deciduous	High Density Pole	10.4	Uneven Age	111-140	Hilly, inoperable, riparian corridor. The ridge tops have aspen on them and the bottoms have drainages.		

S t	Barag	a Mgt. Unit		Report 10 -	- Foreste	d Stands Compartment: 038 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	4119 - Mixed Northern Hardwoods	High Density Pole	59.8	Uneven Age	51-80	"Dusty Flames" Cut 2009. Probably will not be ready in 2025, has lots of aspen regeneration in the understory.
20	4130 - Aspen	High Density Sapling	21.3	16		"Brown Ground" Cut 1997.
21	4139 - Aspen, Mixed Deciduous	High Density Pole	26.4	17	1-50	Cut in 1999 before being Acquired . Some poor quality maple poles scattered in what should be an aspen stand. Looks as if it was a heavy aspen removal. The site should be managed for aspen.
22	4319 - Mixed Upland Forest	High Density Log	88.5	83		Bear Creek. Riparian corridor. Steep slopes to the river.
23	4115 - Y.Birch, Hemlock NH	High Density Pole	87.9	Uneven Age	81-110	Acquired in 2000. Cut in 1999. Poor stocking.
24	4139 - Aspen, Mixed Deciduous	High Density Pole	9.0	17	1-50	Acquired in 2000. Some maple poles in an aspen stand. Looks like a heavy aspen removal cut in 1998. The site should be managed for aspen. The stand is hillsides with a drainage running through it.
25	4115 - Y.Birch, Hemlock NH	High Density Pole	28.5	Uneven Age	81-110	Cut in 1998 and acquired in 2000. The stand had a heavy aspen removal on the finger ridges in the stand.
26	4130 - Aspen	High Density Sapling	77.6	5		"Bear Aspen" Cut in 2008
27	4136 - Aspen, Mixed Conifer	High Density Pole	19.3	91		Black ash drainage through the middle of the stand might have to be removed from the harvest area if it is too wet. Will have to buffer Bear Creek.
28	4319 - Mixed Upland Forest	High Density Log	26.6	83		Otter River corridor. Most of the white spruce has died.

4119 - Mixed Northern

Hardwoods

4130 - Aspen

29

30

High Density Log

High Density Sapling 7.6

64.0

Uneven Age

5

111-140

Along the Otter River.

"Bear Aspen" Cut in 2008.

Report 11 - Nonforested Stands

Compartment: 038 Year of Entry: 2015



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	122 - Road/Parking Lot	9.5	No	Unspecified	

