Compartment Review Presentation

Baraga Forest Management Unit

Compartment 11053 Entry Year 2017 Acreage: 979

County Houghton

Management Area: Central Houghton

Revision Date: 2014-12-01

Stand Examiner: Legal Description:

T52N R36W, Sections 34, and 35.

Identified Planning Goals:

Soil and topography:

Soils are Munising loamy fine sand, Kalkaska sand, Halfaday sand, and Munising-Skanee complex. Topography is level to slightly rolling. The compartment is level to rolling topography. The only steep terrain is along Bruno Creek and the depression in the north part of the compartment.

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

This is part of a block of state forest land (to the east). The lands to the south, west and north are a mix of small private and forest industry. The land to the east of the campground is part of a plat. Land use is predominantly forest industry, although there are seasonal cottages and one permanent home in the surrounding area.

Unique Natural Features:

There is a deep depression in the northwest corner of section 35.

Archeological, Historical, and Cultural Features:

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

The compartment is within the Otter River Watershed. Bruno Creek and several of its tributaries (trout streams) are within the compartment. Emily Lake and some unnamed lakes are also within the compartment.

Wildlife Habitat Considerations:

Loons are found on Emily Lake. Hard and soft mast in this compartment supports a good bear population. Mesic conifer regeneration is not impacted by deer browsing. Feature oak where present.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured glacial till. The glacial drift thickness varies between 100 and 400 feet. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville was previously used as a building stone. The nearest gravel pit is located one mile to the northwest and potential appears to be good. Abandoned copper mines and crushed basalt piles are located one mile to the northwest. This area was not previously leased for metallic development. There is no economic oil and gas production in the UP.

Vehicle Access:

Access in good in the west half of the compartment (via county roads). Access east is achieved off snowmobile trail 109 (the Alston Trail) or from the road that borders the south of the compartment.

Survey Needs:

Survey work will be needed.

Recreational Facilities and Opportunities:

There is a state forest campground on Emily Lake. Snowmobile trail 109 is just north of the compartment boundary.

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

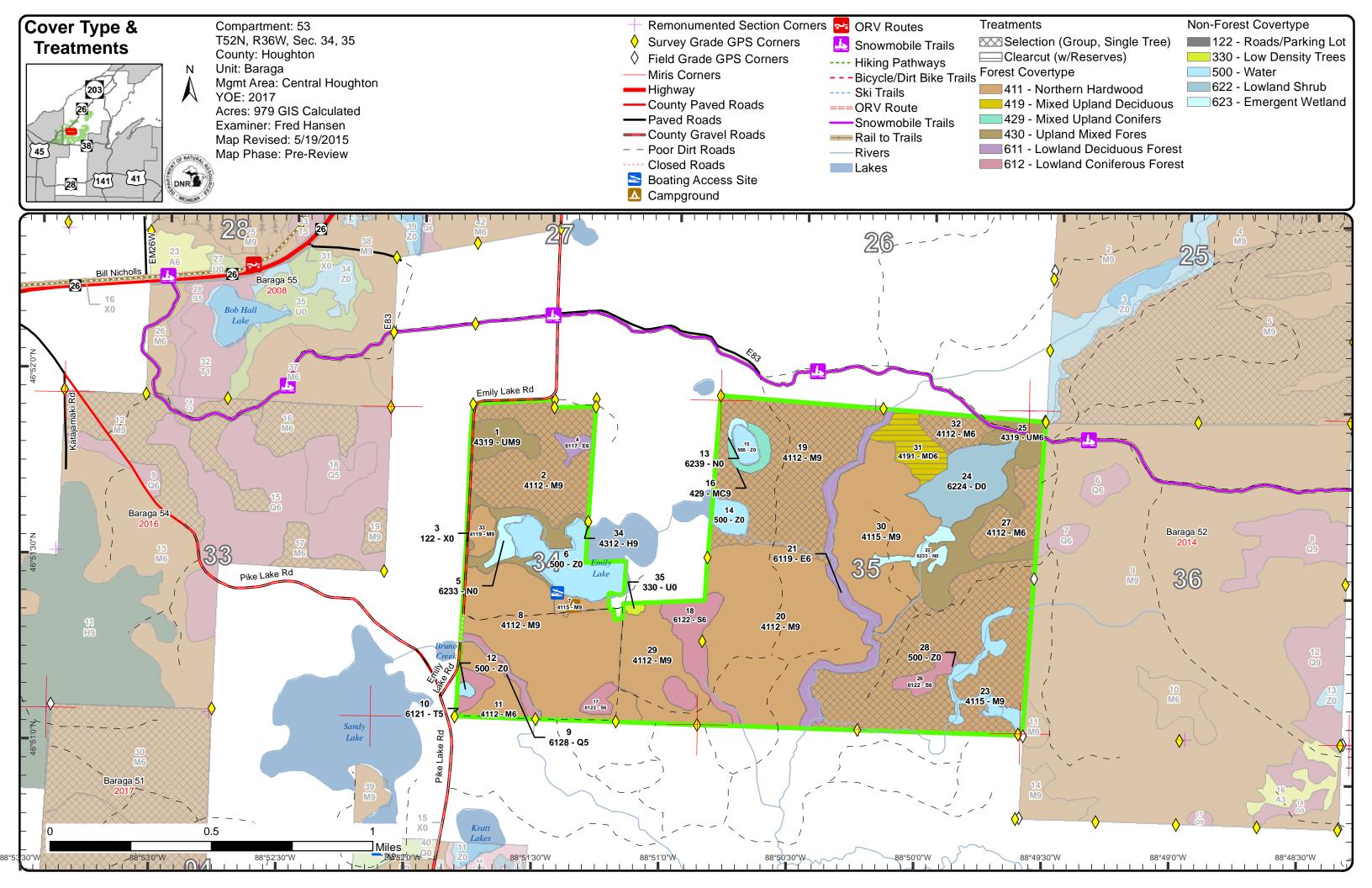
The following information is displayed, where pertinent, on the attached compartment maps:

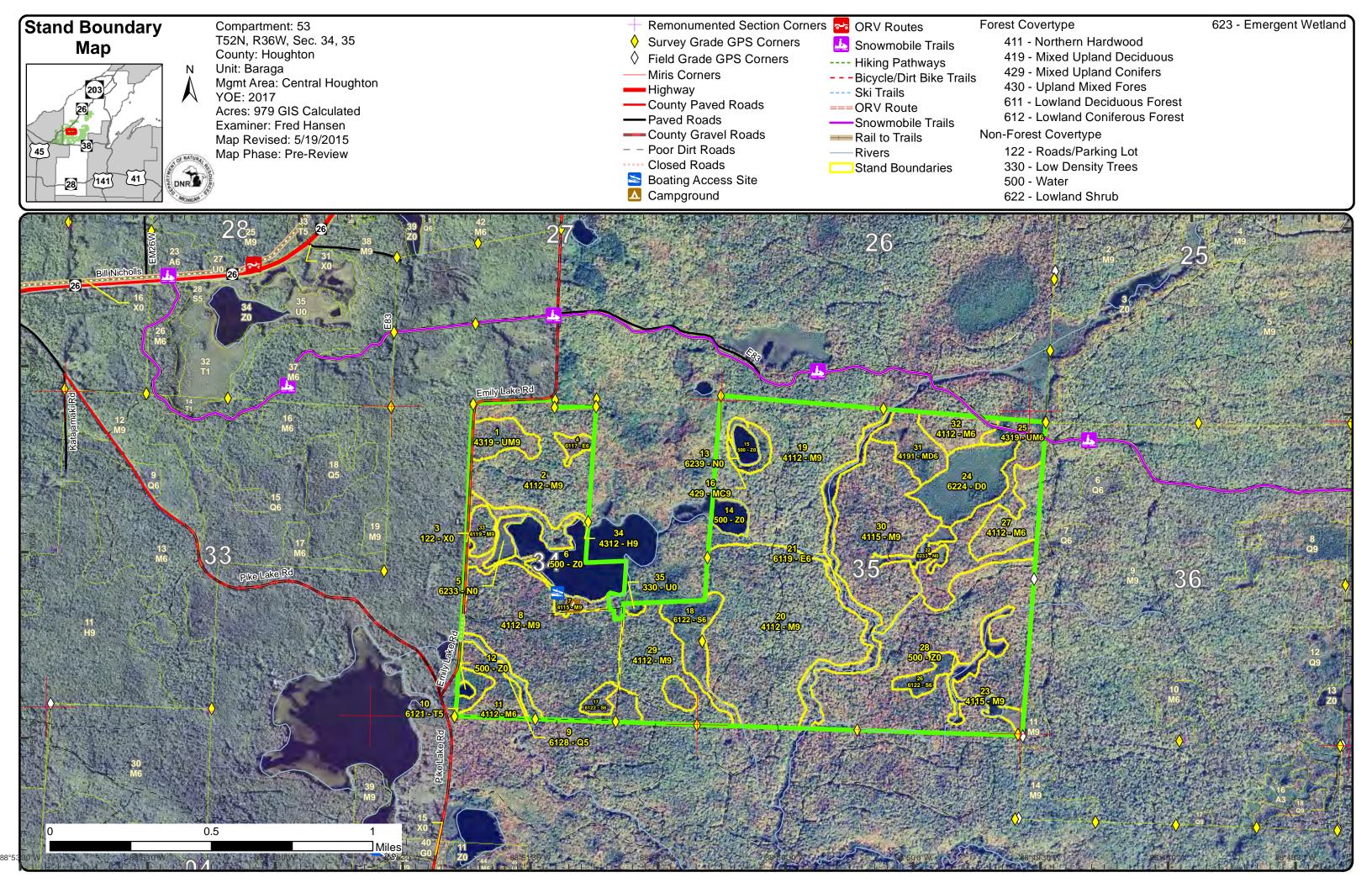
Base feature information, stand boundaries, cover types, and numbers

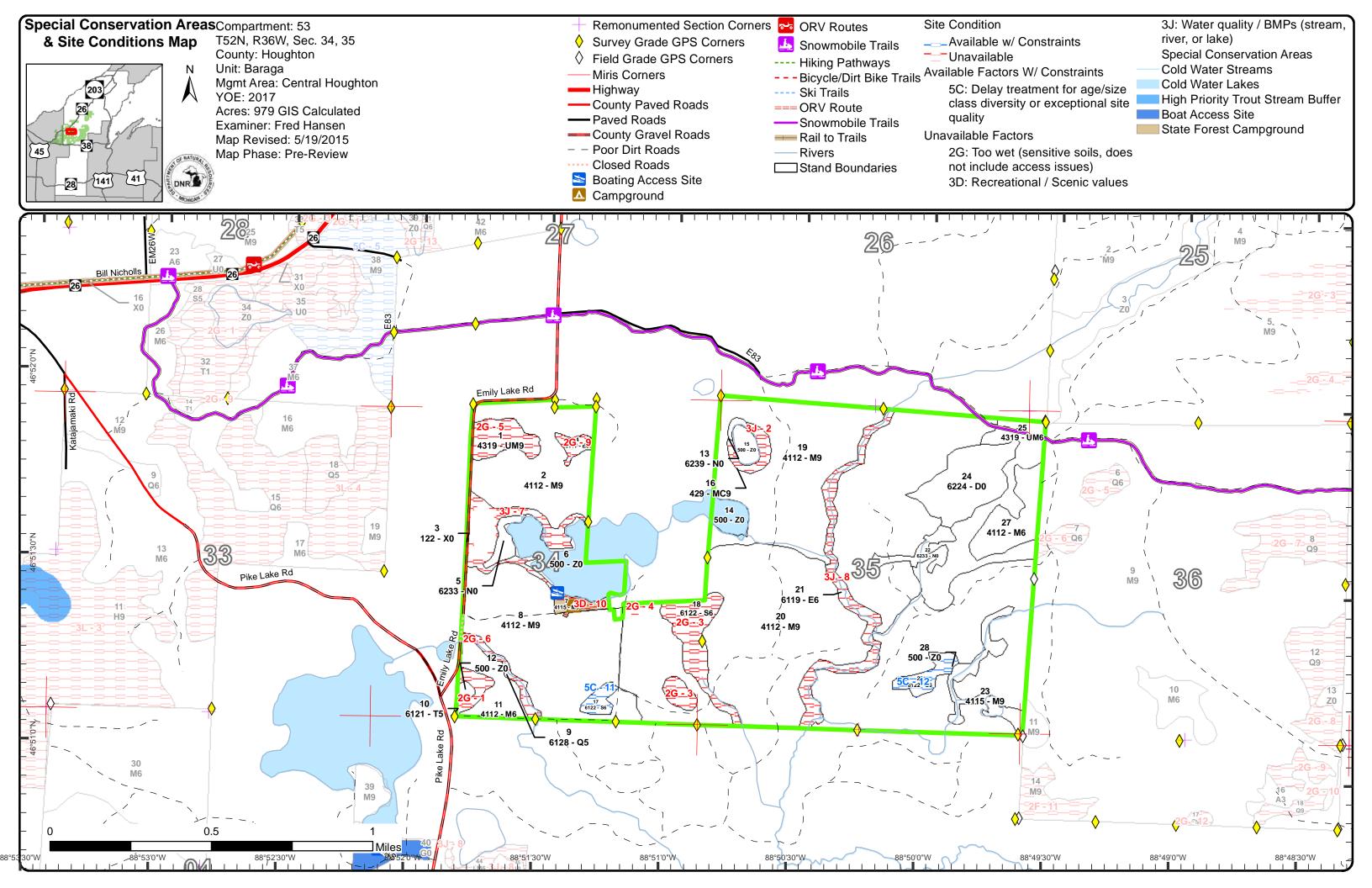
Proposed treatments

Site condition boundaries

Details on the road access system







Report 1 – Total Acres by Cover Type and Age Class

Baraga Mgt. Unit

Compartment 53 Year of Entry 2017



Fred Hansen: Examiner

Age Class

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Hemlock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14
Low-Density Trees	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	8	0	4	24	0	0	0	0	0	0	36
Marsh	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	17
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	704	704
Tamarack	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5
Treed Bog	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Water	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
Total	107	0	0	0	0	0	0	0	25	0	4	24	5	0	0	0	0	813	978



Report 2 – Treatment Summary

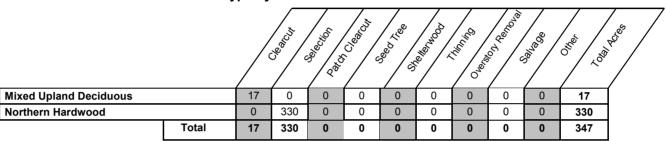
Baraga Mgt. Unit

Year of Entry: 2017 Acres of Harvest

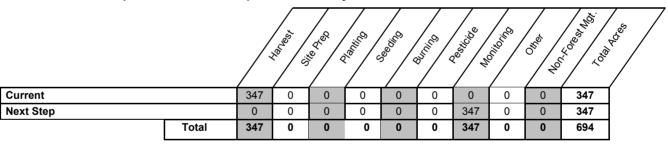
Compartment 53
Total Compartment Acres: 979

Commercial Harvest - 347 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Harvest Method



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a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
2	11053002- Mark	63.1	4112 - Maple, Beech, Cherry Association	Sawtimber Well	69	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal - Approval Pending Edits

Habitat Cut: No Site Condition: None

Specs:

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

Next Step

Treatments:

Acceptable Any tree species that are currently represented in the over story.

Association

Regen:

Other Old next step comments:

Comment:

10/1 /2016 **Proposed Start Date:**

11053019-19 Mark

97 4 4112 - Maple, Beech. Cherry

Sawtimber 109 81-110 Well

Single Tree Harvest Selection

411 - Northern Hardwood

Uneven-Aged

Compartment: 53 Year of Entry: 2017

> Proposal -Approval Pending Edits

Habitat Cut: No Site Condition: None

Specs:

Prescription 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 an average BA of 60 sqft. Where 30 sqft or more of hemlock occurs thin to less than 100 sqft of BA. Follow all quidelines set forth in "The Complete Marker". Retention for this stand will be greater than 3% and will consist of tree species of the dominant cover type and reserve tree species.

Next Step Treatments:

Acceptable Any tree species that are currently represented in the over story.

Regen:

possible MNFI hit. Old next step comments: Other

Comment:

Proposed Start Date: 10/1 /2016

11053023-23 Mark

4115 - Y.Birch, Hemlock NH

Sawtimber 109 81-110 Well

Harvest

Single Tree 4199 - Other Selection Mixed Upland Deciduous

Uneven-Aged

Proposal -Approval Pending Edits

Habitat Cut: No Site Condition: None

136.0

Specs:

Prescription Selectively thin hardwoods to 70-90 sqft of BA. Favor yellow birch, 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". Retention for this stand will be greater than 3% and will consist of tree species of the dominant cover type and reserve tree species.

Next Step

Treatments:

Acceptable Any tree species that are currently represented in the over story.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016



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eatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
053027- Mark	21.0	4112 - Maple, Beech, Cherry Association	Poletimber Well	109	111- 140	Harvest	Single Tree Selection	4199 - Other Mixed Upland Deciduous	Uneven- Aged	Proposal - Approval Pending Edits
0	053027- Mark	953027- 21.0 Mark	253027- 21.0 4112 - Maple, Mark Beech, Cherry Association	253027- 21.0 4112 - Maple, Poletimber Beech, Cherry Well Association	953027- 21.0 4112 - Maple, Poletimber 109 Mark Beech, Cherry Well Association	253027- 21.0 4112 - Maple, Poletimber 109 111- Mark Beech, Cherry Well 140 Association	053027- 21.0 4112 - Maple, Poletimber 109 111- Harvest Mark Beech, Cherry Well 140	153027- 21.0 4112 - Maple, Poletimber 109 111- Harvest Single Tree Mark Beech, Cherry Well 140 Selection Association	Density Age Range Type Method Objective 21.0 4112 - Maple, Beech, Cherry Association Density Age Range Type Method Objective 109 111- Harvest Single Tree Selection Mixed Upland Deciduous	Age Range Type Method Objective Structure 253027- Vark Beech, Cherry Association Density Age Range Type Method Objective Structure 109 111- Harvest Single Tree Selection Mixed Upland Deciduous Selection Mixed Upland Deciduous

Habitat Cut: No Site Condition: None

Prescription 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 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".

Next Step Treatments:

Acceptable Any tree species that are currently represented in the over story.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

31 11053031-17.3 4191 - Mixed Poletimber 75 111-Harvest Clearcut with 429 - Mixed Even-Aged Proposal -**Upland Deciduous** Retention **CCut** Well 140 **Upland Conifers** Approval with Conifer Pending Edits

Habitat Cut: No Site Condition: None

Prescription Harvest all species down to 4.6 inches DBH except cedar, hemlock and white pine. Also reserve red oak over 18" Dbh and cedar if they are

Specs: present. Retention for this stand will be greater than 3% and will consist of reserve tree species. Buffer out vernal pond.

Next Step Treatments:

Acceptable Aspen/fir

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

11053032-32 12.4 4112 - Maple, Poletimber 71 111-Harvest Single Tree 411 - Northern Uneven-Proposal -Beech, Cherry Well 140 Selection Hardwood Aged Approval Mark Association Pending Edits

Habitat Cut: No Site Condition: None

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

species.

Next Step Treatments:

Acceptable Any tree species that are currently represented in the over story.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Total Treatment Acreage Proposed: 347.2

Compartment: 53

Baraga Mgt. Unit

Fred Hansen : Examiner Year of Entry: 2017

Dominant Site Conditions

	3D	3J	5C
Hemlock		14	
Low-Density Trees			
Lowland Conifers			
Lowland Deciduous		26	
Lowland Spruce/Fir			12
Marsh			
Mixed Upland Deciduous			
Northern Hardwood	5		
Tamarack			
Treed Bog			
Upland Conifers		6	
Upland Mixed Forest			
Urban			
Water			
Total Forested Acres	5	45	12
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 ond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Cc	omments:						
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	6	2F: Too steep	Unspecified	Unspecified	Unspecified
Cc	omments:						

Report 5 – Site Conditions

Baraga Mgt. Unit Fred Hansen : Examiner Compartment: 53
Year of Entry: 2017

3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	2F: Too steep	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
	Comments:						
7	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	14	2F: Too steep	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	26	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
	Comments:						

Report 5 – Site Conditions

Baraga Mgt. Unit Fred Hansen : Examiner Compartment: 53
Year of Entry: 2017

9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
10	Unavailable	3D: Recreational / Scenic values	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Emily Lake Campo	ground.					
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	4	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Mgt. Unit

Compartment: #Type! Year of Entry:



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
Comments				

Baraga Mgt. Unit Compartment: 53
Year of Entry 2017



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.

Conservat Area	ion Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen stocked trout populations and those of other coldwater ficonditions for coldwater fishes may occur in Michigan lal groundwater inflows, or are located in colder (northern) a Director's action and designated as trout resources by F	ish species to persist from year to year. Suitable kes if they are relatively deep, have substantial areas of the state. Such lakes are established by
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

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Cut in 2008
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pecause it includes the side and the bottom with the upercanopy W Pine in the
e to aspen removal) may be as of wet areas.
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s t	Baraga Mgt. Unit			Report 8	– Forested	Stands Compartment: 53 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
27	4112 - Maple, Beech, Cherry Association	Poletimber Well	21.0	109	111-140	
29	4112 - Maple, Beech, Cherry Association	Sawtimber Well	42.8	71	81-110	Cut in 2008.Emily Lake Hdwd.
30	4115 - Y.Birch, Hemlock NH	Sawtimber Well	75.4	109	81-110	Cut in 1998. Areas with low ba's (due to aspen removal) may be excluded from sale. Lots of wet areas. possible cut next in 2027
31	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	17.3	75	111-140	
32	4112 - Maple, Beech, Cherry Association	Poletimber Well	12.4	71	111-140	possible trespass along blue line mabye 2 ch over
33	4119 - Mixed Northern Hardwoods	Sawtimber Well	6.8	69	81-110	Cut in 2008, Emily Lake Hdwd.
34	4312 - Hemlock, Mixed Deciduous	Sawtimber Well	14.1	110	111-140	RMZ along lake shore. Steep Slopes.

Report 9 - Nonforested Stands

Compartment: 53 Year of Entry: 2017



Stand	Cover Type	Acres	Managed Site	General Comments:
3	122 - Road/Parking Lot	2.4	No	
5	6233 - Wet Meadow	5.0	No	
6	500 - Water	31.5	No	Emily Lake
12	500 - Water	1.3	No	
13	6239 - Mixed Emergent Wetland	1.1	No	Side slope to a sinkhole lake - 45% + slope.
14	500 - Water	7.0	No	
15	500 - Water	4.9	No	
22	6233 - Wet Meadow	7.6	No	
24	6224 - Treed Bog	31.3	No	
28	500 - Water	14.4	No	
35	330 - Low-Density Trees	1.2	No	WET Bogdown in a hole