

Compartment Review Presentation

Escanaba Forest Management Unit

Compartment 33071 Entry Year 2017 Acreage: 708

County Menominee

Management Area: North Menominee Moraines

Revision Date: 2015-07-10

Stand Examiner: Dan McNamee

Legal Description:

T40N - R25W, SECTION 31 & 32, Menominee County, Michigan.

Identified Planning Goals:

159 acres will be treated this treatment period. 15 acres of tamarack and 3 acres of lowland hardwood within cedar types will be harvested, 52 acres of lowland conifers consisting of spruce/tamarack will be treated. 84 acres of mixed upland deciduous will be treated using the selection and thinning silvicultural methods.

Soil and topography:

Mostly flat to gently rolling with scattered low and marshy areas mixed in. Major soil series found within this compartment are: Onaway, Rousseau, Salona on the high ground, Cathro, Ensly, Lupton, Tawas in the low ground.

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

Private ownership to the south and east, State ownership to west and north.

Unique Natural Features:

Some areas of Old growth hemlock.

Archeological, Historical, and Cultural Features:

N/A

Special Management Designations or Considerations:

N/A

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

This small compartment is primarily cedar swamp with intervening hardwood ridges. Past management has mainly focused on thinning northern hardwood stands while maintaining the considerable tree species diversity found here. These hardwood stands typically contain maple, hemlock, birch, beech, cedar, cherry, and ironwood. This decade, the main treatments will again be hardwood thinning with the same considerations for maintaining tree species diversity. In addition, mature stands of spruce and tamarack will be clearcut. The dense stands of cedar and hemlock will be retained for wildlife cover. This diversity enhances wildlife habitat.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of medium-textured glacial till with drumlins. The glacial drift thickness varies between 10 and 50 feet. The Ordovician Black River Formation and Prairie du Chien Group underlie the glacial drift. The Black River can be used for dolomite/stone. There is no history of mineral leasing in this area. The nearest gravel pits are located one mile to the southeast on drumlins and there is potential on the upland drumlins within the compartment. No economic oil and gas production has been found in the UP.

Vehicle Access:

None, Accessible only across private property.

Survey Needs:

Recreational Facilities and Opportunities:

Hunting and trapping.

Fire Protection:

Fire Occurance is low in this area, Should a fire get started, there is access to this 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

Compartment 71

Year of Entry 2017

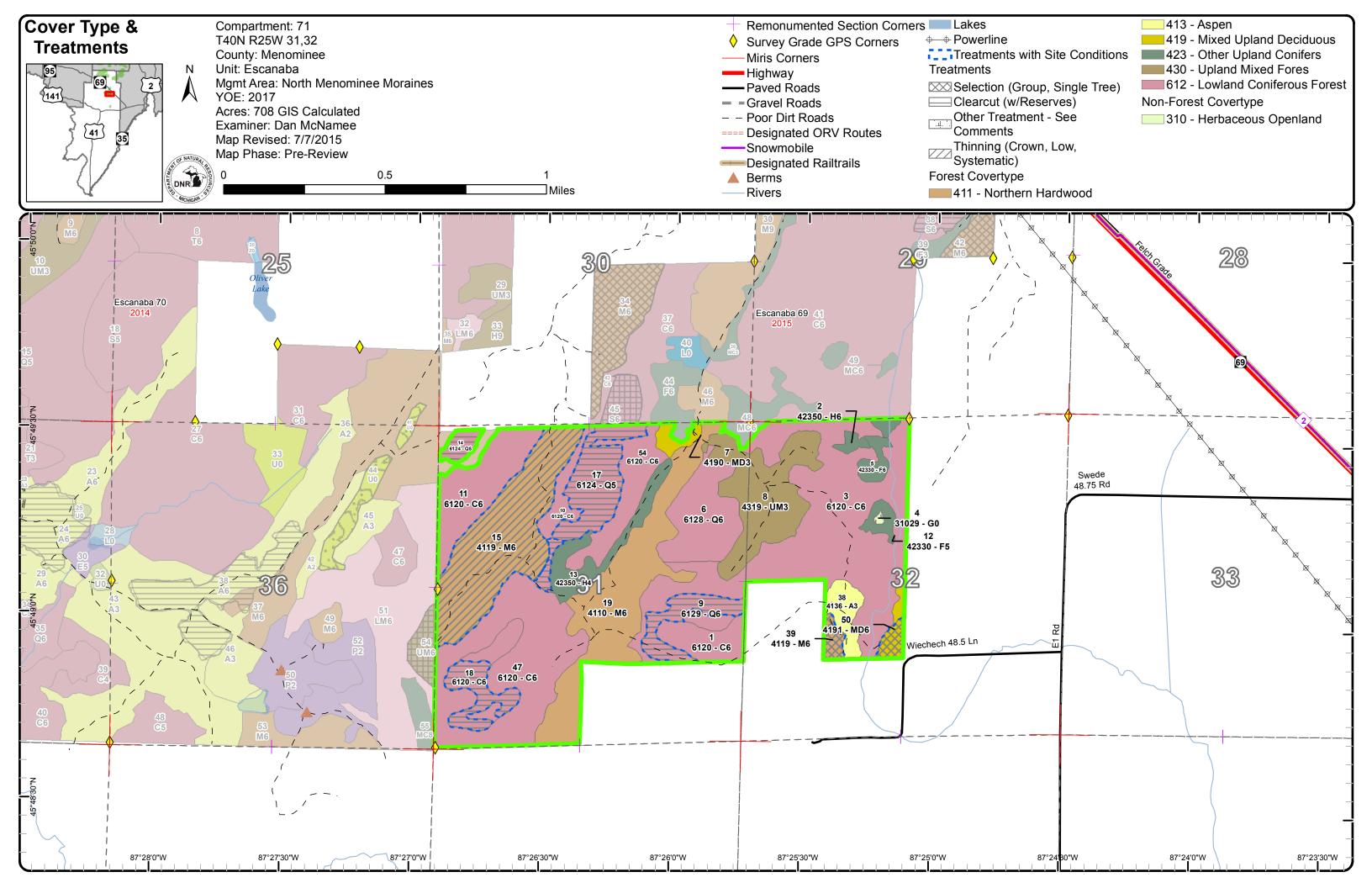
Escanaba Mgt. Unit

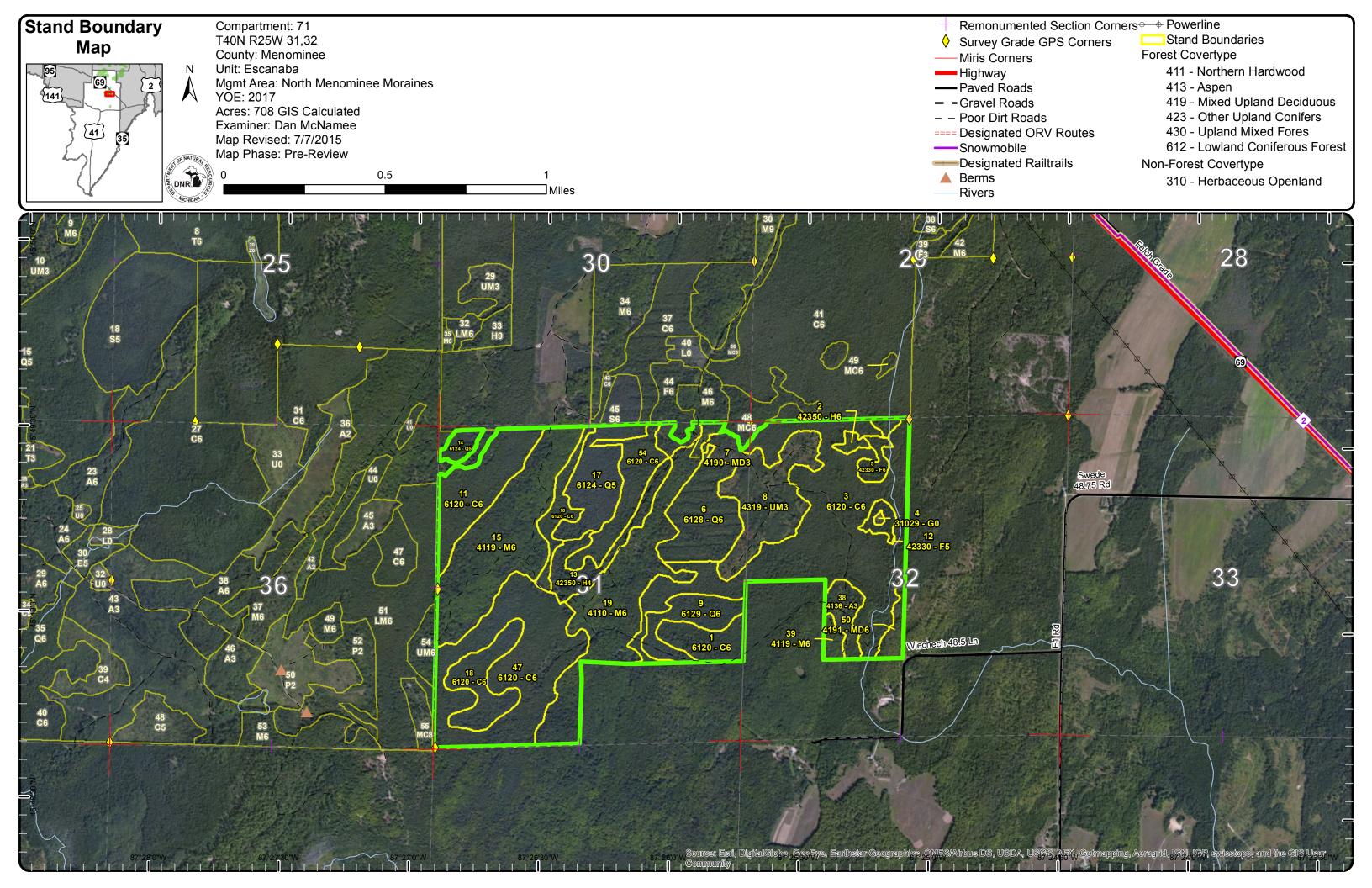
Dan McNamee : Examiner

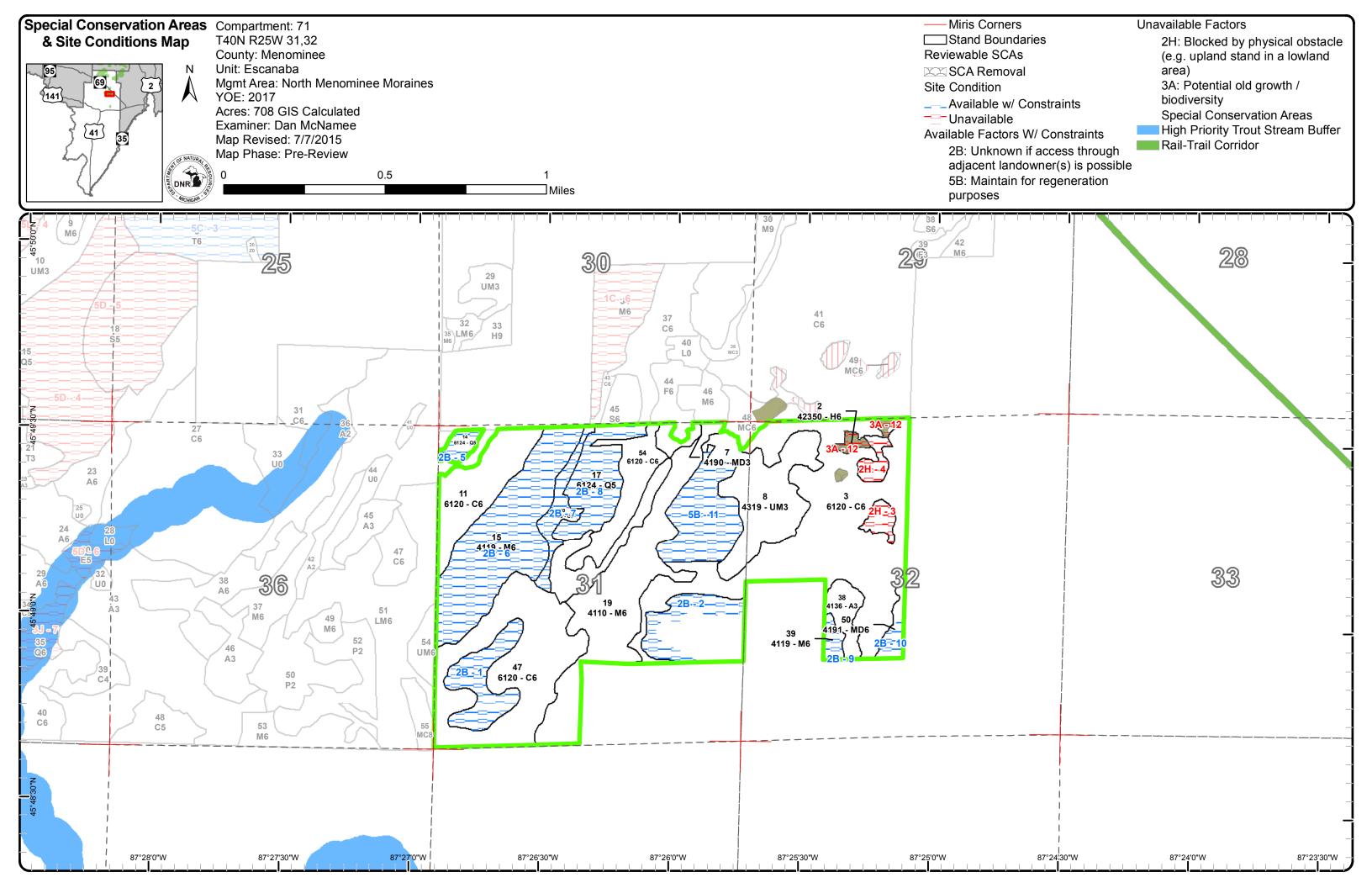


Age Class

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Aspen	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
Cedar	0	0	0	0	0	0	0	0	0	0	0	318	25	0	0	0	0	0	343	
Hemlock	0	0	0	0	0	0	0	0	0	0	0	0	5	20	0	0	0	0	25	
Herbaceous Openland	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	20	36	0	36	0	0	0	0	0	0	92	
Mixed Upland Deciduous	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
Northern Hardwood	0	0	0	0	0	0	0	0	157	0	0	0	0	0	0	0	0	5	162	
Upland Mixed Forest	0	0	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	
Upland Spruce/Fir	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	11	
Total	1	0	0	75	0	0	0	0	188	36	0	354	30	20	0	0	0	5	709	









Report 2 – Treatment Summary

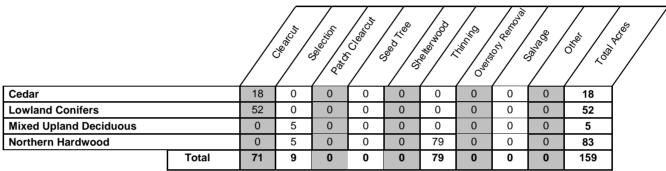
Escanaba Mgt. Unit Year of Entry: 2017

Acres of Harvest

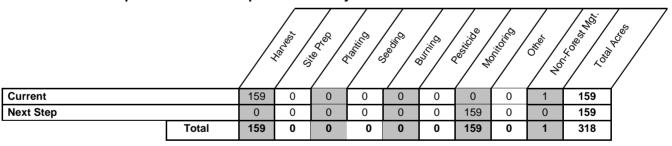
Compartment 71
Total Compartment Acres: 708

Commercial Harvest - 0 Harvests with Site Condition - 159 Next Step Harvest - 0 Habitat Cut - 1

Cover Type by Harvest Method



Proposed and Next Step Treatments by Harvest Method



Escanaba Mgt. Unit Report 4 -- Treatments Compartment: 71 s Year of Entry: 2017 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 33071004-NF 0.6 31029 - Grass (OI) Nonstocked Unspec NonForestMgt Other - Specify 310 -Proposal ified Herbaceous Openland **Habitat Cut: Yes Site Condition:** Prescription Prescribed fire, farming (dozing, disking, raking, herbiciding, seeding (native or naturalized species only)), fertilizing and liming, brushhog/saw removal of competing trees and establishment of native hard and soft mast producers such as red oak, crabapple or others. Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 16.2 6129 - Mixed Poletimber 77 141-Clearcut with 613 - Lowland Even-Aged Proposal 33071009-Cut Harvest Coniferous Lowland Well 170 Retention Mixed Forest Forest **Habitat Cut: No** Site Condition: Unknown Access Prescription Cc with reserves, leave patches In the heavier cedar areas. Specs: Next Step **Treatments:** Acceptable T,Fs, C,Fb Regen: Other retention area is approximate, it will be determined at time of sale where the heavier cedar areas are. Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 33071010-3-3.0 6120 - Lowland Poletimber 103 81-110 Harvest Clearcut with 613 - Lowland Even-Aged Proposal Well Mixed Forest New Cedar Retention **Habitat Cut: No** Site Condition: Unknown Access Prescription Cc, cut southern portion of stand. Specs: Acceptable Rm., Ash Fb, Fs. Regen:

Next Step

Treatments:

Other Comment:

Old next step comments:

Proposed Start Date: 10/1 /2016

33071014-Cut 5.5 6124 - Lowland Poletimber 86 1-50 Harvest Clearcut 6122 - Black Even-Aged Proposal Spruce

Spruce-Fir Medium

Site Condition: Unknown Access **Habitat Cut: No**

Prescription Cc no retention. small area seed source in close proximity on pvt. land.

Specs:

Next Step **Treatments:**

Acceptable S, T, C

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016 Escanaba M S t Compartment: 71
Year of Entry: 2017

Aged

Upland Forest



а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 33071015-Cut 78.5 4119 - Mixed Poletimber 81-110 Crown Thinning 4319 - Mixed Uneven-15 78 Harvest Proposal

Habitat Cut: No Site Condition: Unknown Access

Northern Hardwoods

Prescription Select cut to residual BA 70-80. Create and increase canopy gaps where advanced regeneration is found.

Well

Specs:

Next Step Treatments:

Acceptable Sm, Wb, Ch, H, Fb.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

17 33071017-Cut 30.6 6124 - Lowland Poletimber 85 1-50 Harvest Clearcut with 6122 - Black Even-Aged Proposal

Spruce-Fir Medium Retention Spruce

Habitat Cut: No Site Condition: Unknown Access

<u>Prescription</u> Clear cut leaving (3) .3 acre patches of spruce and other spp. as a seed source and retention.

Poletimber

Specs:

Next Step Treatments:

Acceptable S, T, C.

33071018-Cut

Regen:

Other Old next step comments:

15.4

Comment:

Proposed Start Date: 10/1 /2016

Cedar Well ified Retention Mixed Forest

Harvest

Clearcut with

106 Unspec

6120 - Lowland Cedar 613 - Lowland Even-Aged Proposal

Habitat Cut: No Site Condition: Unknown Access

Prescription Clearcut the heavier areas of T & Fs, leave the heavier cedar areas. areas that are removed from harvest are approximate, better lines will be

Specs: done at time of sale prep.

Next Step Treatments:

Acceptable T,S, C & Fb.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

39 33071039-Cut 4.5 4119 - Mixed Poletimber 75 111- Harvest Single Tree 411 - Northern Uneven- Proposal

Northern Hardwoods Well 140 Selection Hardwood Aged

Habitat Cut: No Site Condition: Unknown Access

Prescription Thin to residual BA 70-80, Create and enhance some canopy gaps especially where there is advanced regen.

Specs:

Next Step

Treatments:

<u>Acceptable</u> Sm, Bswd Beech, Yb, Wb, H and other assoc mixed upland spp.

Regen: Other

Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Escanaba Mgt. Unit

Report 4 -- Treatments

Compartment: 71 Year of Entry: 2017

t 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
50	33071050-Cut	4.9	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	26	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal

Habitat Cut: No Site Condition: Unknown Access

Prescription Thin stand down to residual BA 70-80. Create and enhance canopy gaps where advance regen. is in the stand.

Specs:

S

Next Step Treatments:

Acceptable Sm. Bswd, Beech, H, Fb and other upland Hdwd spp.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Total Treatment 159.1 Acreage Proposed:

Report 5 - Site Conditions

Compartment: 71

Escanaba Mgt. Unit

Dan McNamee : Examiner Year of Entry: 2017

Availa	ability for N	/lanagement					
Total	Acres	Acres		Domina	nt Site	e Con	ditions
Acres	Available	Not Available		2B	2H	3A	5B
11	11	0	Aspen				
343	306	37	Cedar	37			
25	20	5	Hemlock			5	
1	1	0	Herbaceous Openland				
92	4	88	Lowland Conifers	52			36
12	7	5	Mixed Upland Deciduous	5			
162	79	83	Northern Hardwood	83			
52	52	0	Upland Mixed Forest				
11	0	11	Upland Spruce/Fir		11		
708	480	228	Total Forested Acres	177	11	5	36
	68%	32%	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	Available	2B: Unknown if access through adjacent landowner(s) is possible	24	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
2	Available	2B: Unknown if access through adjacent landowner(s) is possible	16	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						

Report 5 – Site Conditions

Escanaba Mgt. Unit
Dan McNamee : Examiner

Compartment: 71
Year of Entry: 2017

3	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
(Comments:						
4	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
(Comments:						
5	Available	2B: Unknown if access through adjacent landowner(s) is possible	6	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
6	Available	2B: Unknown if access through adjacent landowner(s) is possible	79	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
7	Available	2B: Unknown if access through adjacent landowner(s) is possible	13	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
8	Available	2B: Unknown if access through adjacent landowner(s) is possible	31	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						

Report 5 – Site	Conditions
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Escanaba Mgt. Unit

Dan McNamee : Examiner

Compartment: 71
Year of Entry: 2017

9	Available	2B: Unknown if access through adjacent landowner(s) is possible	5	2D: Portable Bridge Needed (Dept. bridge will be adequate)	Unspecified	Unspecified	Unspecified
C	Comments:						
10	Available	2B: Unknown if access through adjacent landowner(s) is possible	5	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
11	Available	5B: Maintain for regeneration purposes	36	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
12	Unavailable	3A: Potential old growth / biodiversity	5	Unspecified	Unspecified	Unspecified	Unspecified

Escanaba Mgt. Unit

Compartment: 071
Year of Entry: 2017



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	
Unspecified	Potential Old Growth		SCA Removal		
Comments Small island, possible	old growth, access is tough. Hemlock is la	arge diameter and stand has old	growth characteristics.		
Unspecified	Potential Old Growth		SCA Removal	2	
Comments Small upland in swam	p, stand has old growth characteristics, la	ge hemlock and white pine.			
Unspecified	Potential Old Growth		SCA Removal	1	
Comments					
Balsam declining, sma	all upland Island. Stand has characteristics	of large diameter old growth tin	nber.		

Mgt. Unit Compartment:
Year of Entry

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.

Conservation Type Description HCVA = High Conservation Value Area SCA = Special Conservation Area

S t	Escanaba Mgt. Unit			Report 8	- Forested	Stands Compartment: 71 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6120 - Lowland Cedar	Poletimber Well	17.3	106	141-170	2015-cedar is small, there is 3-4 acre island of hemlock, W. pine and upland cedar that was treated in in 1999. OPIC - FMD: SITE AND QUALITY VARIES WITHIN THIS STAND-TIMBER IS SMALL AND THICK IN PLACES AND BETTER QUALITY IN OTHERS.
2	42350 - Upland Hemlock	Poletimber Well	4.7	115	81-110	2015-Almost a pure stand of hemlock with scattered Wb,C,Rm. Lots of deer trails, no beds.OPIC - FMD: Small island, possible old growth, access is tough. Hemlock is large diameter and stand has old growth characteristics.
3	6120 - Lowland Cedar	Poletimber Well	143.5	106	141-170	2015- cedar stand with pockets of tamarack (tamarack in the NE is dead due to ELB). THERE IS ALSO SPRUCE AND ASH SCATTERED THROUGHOUT THE STAND. OPIC - FMD: SITE AND QUALITY VARIES WITHIN THIS STAND-TIMBER IS SMALL AND THICK IN PLACES AND BETTER QUALITY IN OTHERS.
5	42330 - Upland Fir	Poletimber Well	5.8	74	141-170	2015- Upland island in NE corner of compartment.OPIC - FMD: SITE AND QUALITY VARIES WITHIN THIS STAND-TIMBER IS SMALL AND THICK IN PLACES AND BETTER QUALITY IN OTHERS.
6	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	35.9	106	141-170	2015- Stand is an area that was treated using the strip cut method. Cutover strips contain Fsb, Fb, Wb and P. Noticed some cedar regen in uncut strips but would like to look at when snow is gone. Leave strips are mostly C w/ Occ. Fsb, Fb, Wb and P. OPIC - FMD: Nice cedar. 3 - 4 stick, straight.
7	4190 - Mixed Upland Deciduous with Cedar	Sapling Well	4.9	26	Immature	2015- Stand is predom. filling in with P & A, some balsam fir. There are pockets of cedar that were left. OPIC - FMD: Treated in 1988 under contract 17-87-01, Whitney sale.
8	4319 - Mixed Upland Forest	Sapling Well	51.6	26	Immature	2015- There is scattered residual Pine, Cedar and Hemlock through out the stand. OPIC - FMD: Good aspen regeneration and white and red pine regeneration. Southern tip of the stand contains a lot of cherry mixed with aspen. Stand was treated in 1989, contract 17-87-01, Whitney sale.
9	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	20.3	77	141-170	2015-Cedar is small and most of it is non merchantable, tamarack is heavy in places and has evidence of ELB. OPIC - FMD: SITE AND QUALITY VARIES WITHIN THIS STAND-TIMBER IS SMALL AND THICK IN PLACES AND BETTER QUALITY IN OTHERS.
10	6120 - Lowland Cedar	Poletimber Well	12.9	103	81-110	2015- transition btwn std 15 and 17. N. end heavier to C, Southern tip (2-3 acres) heavier to Rm, ash, fir. OPIC - FMD: OI Stand Year Origin was 1930
11	6120 - Lowland Cedar	Poletimber Well	36.4	106	141-170	OPIC - FMD: Varies from pure cedar to mixed with w.birch, spruce, balsam. Cedar is short low quality.
12	42330 - Upland Fir	Poletimber Medium	4.8	74	51-80	Island of overmature timber, mainly Fb, Fs. Should be treated but small acreage will make it tough to get logger to cut it.

S t	Escanaba Mgt. Unit			Report 8	- Forested	Stands Compartment: 71 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
13	42350 - Upland Hemlock	Poletimber Poor	20.2	123	1-50	Upland with C and H, this is a transition area. it was cut in 2009 and most of the short lived spp were removed.
14	6124 - Lowland Spruce- Fir	Poletimber Medium	5.5	86	1-50	Overmature spruce and tamarack.
15	4119 - Mixed Northern Hardwoods	Poletimber Well	78.5	78	81-110	2015 treated in 1996, should be treated again. OPIC - FMD: Stand has been treated. Not Quite ready to be treated again, maybe next treatment period. Mix hardwood is combonation of basswood, R.maple and W. ash. Mix sotwood is W. pine and hemlock
17	6124 - Lowland Spruce- Fir	Poletimber Medium	30.6	85	1-50	2015- Nice stand of spruce with pockets of tamarack. there are some white pine with most of it located along the south edge near stand 13. OPIC - FMD: Spruce and cedar is small diameter. Leave for now.
18	6120 - Lowland Cedar	Poletimber Well	23.9	106	Unspecified	This are was broken out from photo imagery. Area contains larger tamarack with small and merchantable cedar throughout the stand. Tamarack has ELB.
19	4110 - Sugar Maple Association	Poletimber Well	78.8	75	81-110	2015- Mix of northern hdwd spp. some areas could use a thinning but overall BA's are low. patches of hemlock and Wp throughout. OPIC - FMD: Heavy to white birch on south part of stand. White ash and ironwood combine to make up the mix hardwood. There is also some balsam that didn't show up in plots that should be removed. Treated in 2009. Stand was thinned to recommended BA.
38	4136 - Aspen, Mixed Conifer	Sapling Well	11.3	27	Immature	2015- balm along the edge then grades into mostly aspen. Log sized H, and Wp was left. Treated in 1989. OPIC - FMD: A3 - P3 not quite a A4 -P4. Hemlock inclusion in NE corner as you come inot the stand. Aspen on higher ground, Balm in lower ground.
39	4119 - Mixed Northern Hardwoods	Poletimber Well	4.5	75	111-140	2015 - Stand was thinned in 1989, could use another thinning but stand is small and access would have to be gained from pvt landowner to east or south. combine with stand 50 to make it worthwhile. OPIC - FMD: Nice hardwood stand, to small to treat alone, combine with stand 36, will have to install a culvert or portable bridge to cross small creek and get landowner permission from east.
47	6120 - Lowland Cedar	Poletimber Well	84.2	103	111-140	OPIC - FMD: LOW AND THICK WITH SMALL 2 STICK CEDAR.
50	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	7.2	26	81-110	2015- this stand is really two stands. the stand to the north is an A3 and stand to South is M6. Stand was treated in 1989 and 3 ac. stand to north was Cc. Stand to south is borderline for treatment. OPIC - FMD: A3 - F3 Treated in 1989, contract # 17-87-01 "Whitney sale".
54	6120 - Lowland Cedar	Poletimber Well	25.1	115	141-170	2015- Primarily C, pockets of T that are not worth chasing. North end looks to have had some choppers choice type harvesting and it filling in with T, Fs, Tag Alder. OPIC - FMD: OI Stand Year Origin was 1900

Compartment: 71 Year of Entry: 2017



Stand	Cover Type	Acres	Managed Site	General Comments:
4	31029 - Grass (OI)	0.6	No	OPIC - FMD: HAS OLD BUILDING FOUNDATIONSIN OPENING , MAY BE OF HISTORICAL VALUE