

Compartment Review Presentation

Escanaba Forest Management Unit

Compartment 33002 Entry Year 2019 Acreage: 1,428

County Menominee

Management Area: Nathan-Banat Moraines

Revision Date: 2017-06-30 Stand Examiner: Dan Beaudo

Legal Description:

T37N-R27W, Sections 7, 8, and 9.

Identified Planning Goals:

This year of entry (YOE), management goals are focused on managing for a mixture of both vegetative and wildlife diversity. This compartment contains a wide variety of cover types ranging from upland aspen and maple types to lowland cedar and mixed conifer types. This YOE several mixed hardwood stands will be treated to increase the overall health and growth rates of the stands. There is also conifer stands affected by spruce budworm (SBW) that will be treated due to forest health concerns. Good distribution of aspen age class with some stands ready for harvest next YOE.

Soil and topography:

Level to rolling, some hills. Upland: Lupton-Cathro association and Cathro-Ensley complex. Lowland: Longrie-Onaway, Onaway, Summerville, and Summerville-Longrie; all fine sandy loams.

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

The majority of the compartment borders state land on the north and south lines. Adjacent to the east and west lines is privately ownership. However there are some private in-holdings within this compartment. Most of the in-holdings are used primarily as recreation properties but one landowner does have Christmas trees that are trimmed for commercial

Unique Natural Features:

This area has the potential to harbor many rare and endangered species including red-shouldered hawk, goshawk, eagle, osprey, great blue heron rookery, moose and wolf. In the form of vegetative unique and natural features, this area has the potential for calypso, ram's head lady'sslipper, marsh grass-of-parnassu, Assiniboia sedge and climbing fumitory in northern hardwoods.

Archeological, Historical, and Cultural Features:

None known to exist.

Special Management Designations or Considerations:

None known to exist.

Watershed and Fisheries Considerations:

The Little Cedar River is located just east of the compartment. A small tributary flows through the north east corner of section 9. No fisheries concerns.

Wildlife Habitat Considerations:

Ecological Context: This compartment is within a broad plain of loamy

ground moraine. Drumlin ridges, trending northeast to southwest, are common throughout. Historically the ridge tops were covered with northern hardwood forests of sugar maple, beech, hemlock, cedar, and yellow birch. Between the ridges, swamps of cedar, tamarack, black spruce, or bog were common. Small knolls within wetlands were often dominated by hemlock and white pine. Wind throw was the most common natural disturbance regime. During the past 100 years much of this landscape was converted to agriculture. Aspen forest increased greatly and hemlock and white pine declined due to early-day logging practices.

West half of compartment dominated by aspen forest and small openings. This habitat is favored by many of the popular game species such as deer, grouse, woodcock, and bear. Within this area, a few hardwood, an aspen, and a lowland deciduous with cedar are being proposed for treatment. The east half of the compartment is the more common drumlin topography with ridges of northern hardwood alternating with swamps of cedar. Several hardwood treatments are proposed, and maintenance of vegetative diversity is recommended. The east half of the compartment will provide habitat

for wildlife that favor more mature forest. Management activities will maintain the habitat.

Mineral Resource and Development Concerns and/or Restrictions

This compartment has not been leased for metallic mineral exploration, and metallic mineral potential is considered low this far east. Sand/gravel pits are not located in the area but potential is good on the upland drumlins. There could be some dolostone potential where bedrock is near the surface. No economic oil and gas production has been found in the UP.

Vehicle Access:

This area has good access via both branches of the Detemple Road. Extensive road work was completed in 2006 on both branches so only typical grading should be needed for the near future.

Survey Needs:

Six survey corners common with private property would need to be set for the proposed treatments.

Recreational Facilities and Opportunities:

There are no officially designated or maintained sites. However the area is used for hunting, trapping and dispersed camping.

Fire Protection:

No significant control problems foreseen due to the lack of explosive fuels and an abundance of natural fuel breaks, such as low wet stands of timber and lowland brush. Low wet areas will impede fire suppression as well as fire spread.

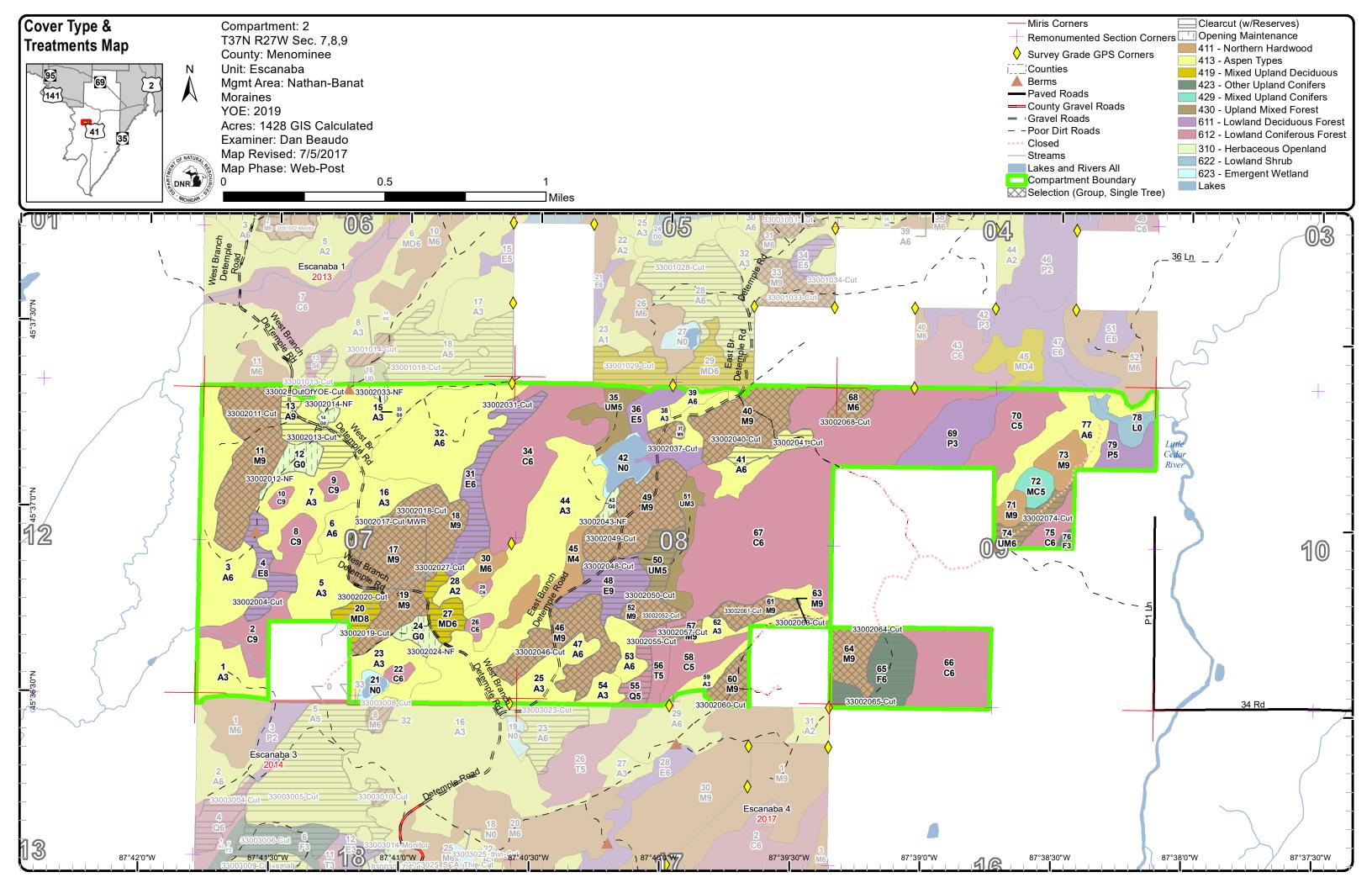
Additional Compartment Information:

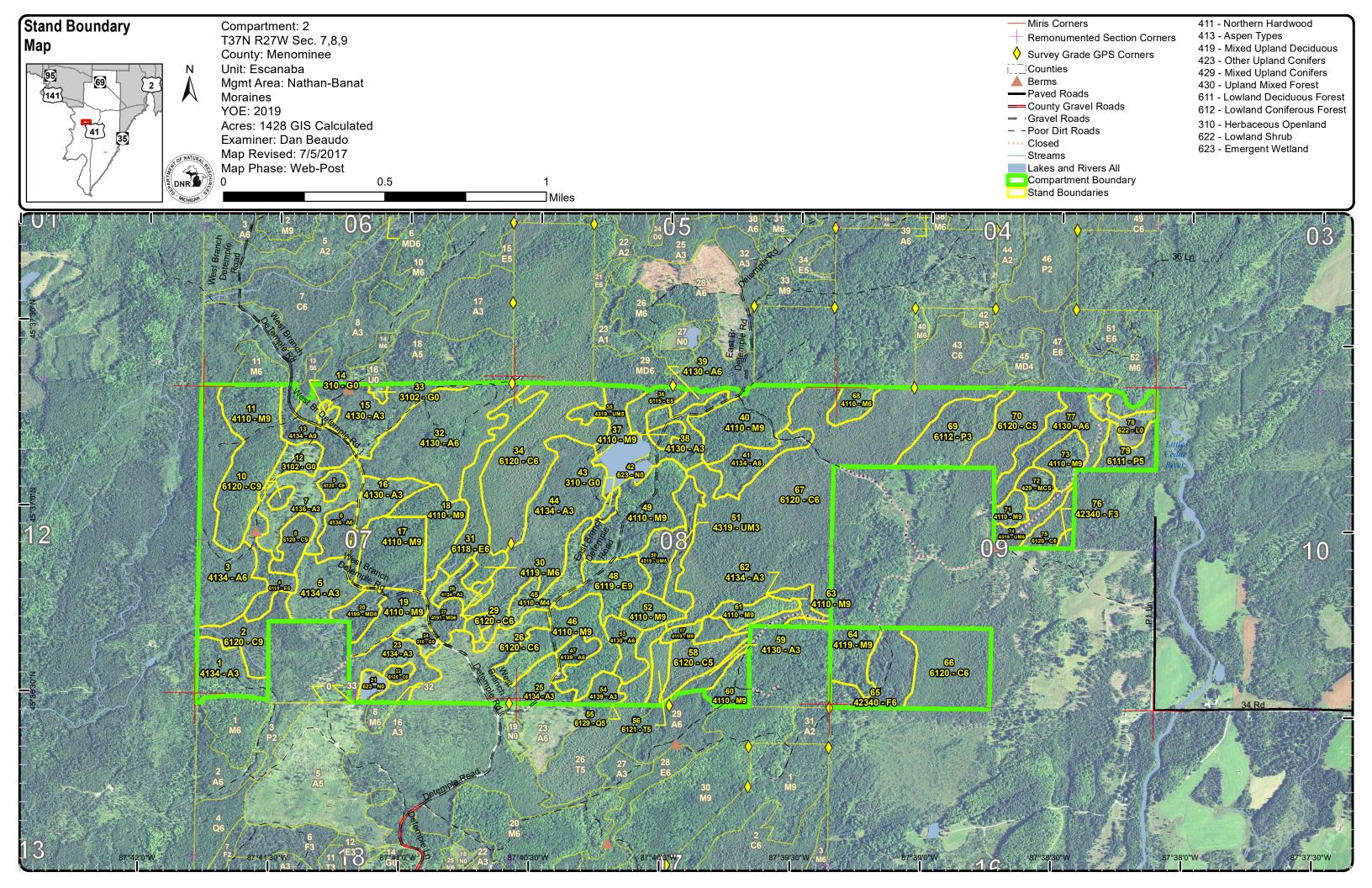
The following reports from the Inventory are attached:

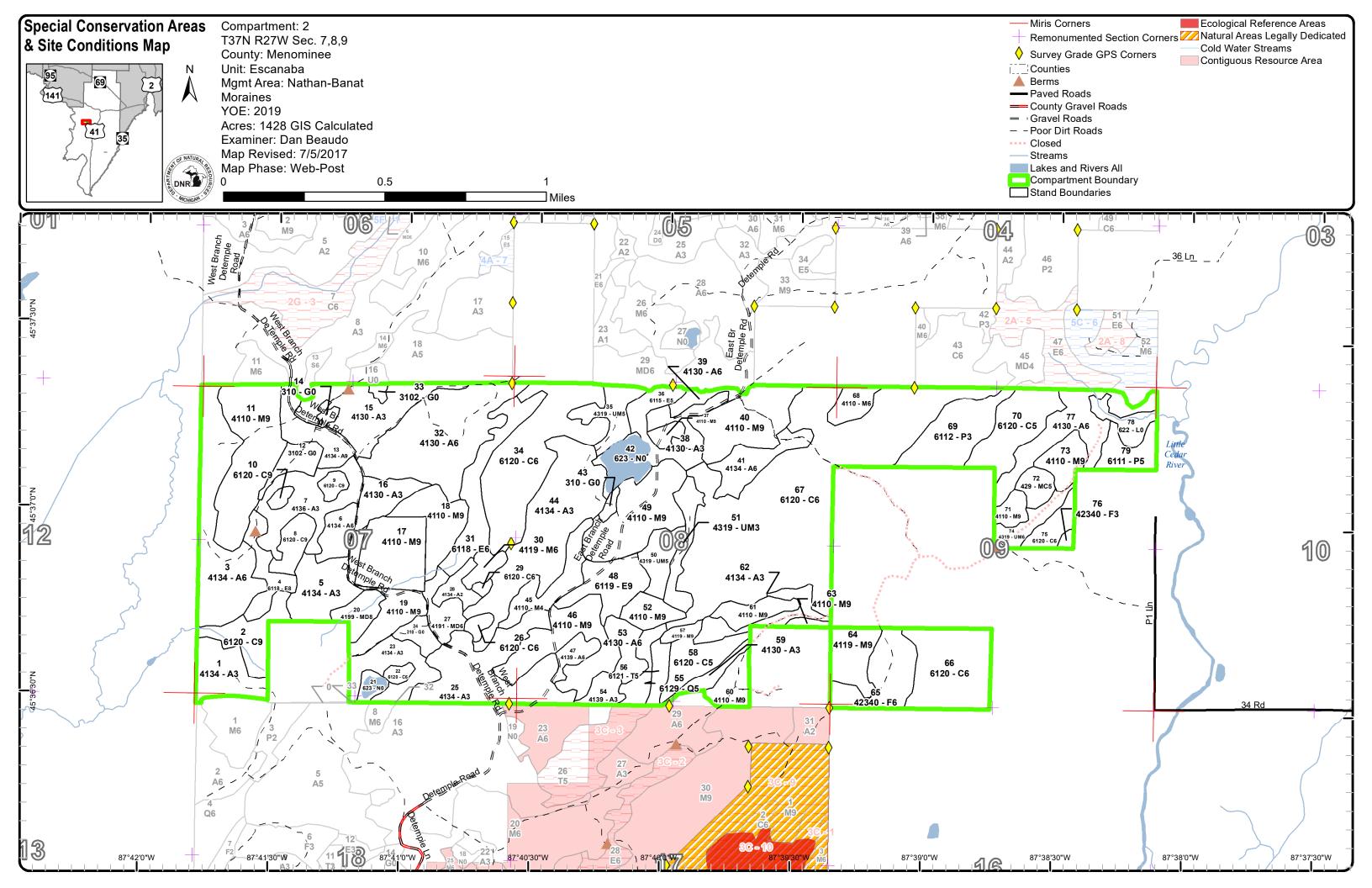
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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 2

Year of Entry 2019

Escanaba Mgt. Unit

Dan Beaudo: Examiner



Age Class

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Aspen	0	83	93	195	95	20	0	0	0	0	0	0	0	0	0	0	0	0	485
Cedar	0	0	0	0	0	0	0	0	0	0	16	102	233	13	0	0	0	0	364
Herbaceous Openland	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Lowland Aspen/Balsam Poplar	0	0	0	0	12	28	0	0	0	0	0	0	0	0	0	0	0	0	40
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9
Lowland Deciduous	0	0	0	0	0	0	0	0	33	25	0	15	0	0	0	0	0	0	73
Lowland Shrub	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Marsh	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Mixed Upland Deciduous	0	0	0	0	10	0	0	0	9	0	0	0	0	0	0	0	0	0	19
Northern Hardwood	0	0	0	0	0	0	0	0	21	100	190	0	0	0	0	0	0	0	311
Tamarack	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Upland Conifers	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Upland Mixed Forest	0	12	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	45
Upland Spruce/Fir	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	24	26
Total	45	95	93	202	158	48	0	0	63	125	215	117	233	13	0	0	0	24	1429



Report 2 – Treatment Summary

Escanaba Mgt. Unit Year of Entry: 2019

Acres of Harvest

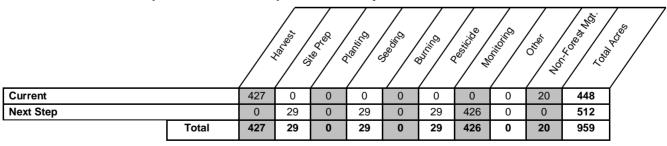
Compartment 2
Total Compartment Acres: 1,428

Commercial Harvest - 427 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method

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Aspen		23	0	0	0	0	0	0	0	0	23	
Cedar		1	0	0	0	0	0	0	0	0	1	
Lowland Conifers		9	0	0	0	0	0	0	0	0	9	
Lowland Deciduous		57	0	0	0	0	0	0	0	0	57	
Mixed Upland Deciduous		19	0	0	0	0	0	0	0	0	19	
Northern Hardwood		3	270	0	0	0	0	0	0	0	273	
Upland Mixed Forest		21	0	0	0	0	0	0	0	0	21	
Upland Spruce/Fir		24	0	0	0	0	0	0	0	0	24	
	Total	158	270	0	0	0	0	0	0	0	427	

Proposed and Next Step Treatments by Method



Habitat Cut: No Site Condition:

Prescription Final harvest this stand, leaving some seed trees. Harvest this stand with stand 13 in comp 1.

Well

Specs:

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Next Step Treatments:

OE-Cut

Acceptable Regen:

Decent quality tamarack and spruce stand. Old next step comments: Manage this stand for a mix of tamarack and spruce primarily, but a mix with Other

other lowland species is acceptable. Comment:

Proposed Start Date: 10/01/2012

33002004-Cut 12.8 6118 - Lowland Sawtimber 76 Unspec Harvest Clearcut with 613 - Lowland Even-Aged Proposal Deciduous with Mixed Forest

Medium ified Retention

Cedar

Cedar

Habitat Cut: No Site Condition:

Prescription Cut all trees greater than 3" dbh except leave buffer to drainage for retention. Cedar is within drainage buffer, which is being retained.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, balsam poplar, spruce, maple, balsam fir, cedar

Regen:

Other Comment:

10/01/2018 **Proposed Start Date:**

45.3 4110 - Sugar Maple Sawtimber 33002011-Cut 97 81-110 Single Tree 411 - Northern Uneven-Proposal Harvest Selection Hardwood Aged

Association

Habitat Cut: No Site Condition:

Prescription Selection thin stand to 60-80 basal area releasing crop trees.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable maple, basswood, ash, birch

Regen:

Other Comment:

Proposed Start Date: 10/01/2018

3102 - Grass 33002012-NF 8.3 NonForestMgt Herbaceous/Crop/ 310 -Proposal Nonstocked Unspec Herbaceous

Grass Planting

Openland

Coniferous

Lowland Forest

Retention

Habitat Cut: No Site Condition:

Prescription Prescribed fire, farming (dozing, disking, raking, herbiciding, seeding (native or naturalized species only)), fertilizing and liming, brushhog/saw removal Specs:

of competing trees and establishment of native hard and soft mast producers such as red oak, crabapple or others.

Next Step Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

trees

14 33002014-NF 2.2 310 - Herbaceous Nonstocked Unspec NonForestMgt Herbaceous/Crop/ 310 - Proposal ified Grass Planting Herbaceous Openland Openland

Spruce budworm defoliation in majority of balsam and spruce trees. No retention due to forest health recommendations to remove moth inceptor

Habitat Cut: No Site Condition:

<u>Prescription</u> 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.

Next Step Treatments:

Other

Comment:

Acceptable Regen:

Other Comment:

Proposed Start Date: 10/01/2018

28.5 4110 - Sugar Maple 33002017-Cut Sawtimber 141-Harvest Single Tree 411 - Northern Uneven-Field Boundary **MWR** Association Well 170 Selection Hardwood Aged

Habitat Cut: No Site Condition:

<u>Prescription</u> Reduce BA down to 75. In addition, 13 small group selection gaps will be cut. These gaps will have a radius of 46 feet, equaling 0.15 acres. The <u>Specs:</u> tops will be removed from these gaps, to facilitate scarification after the harvest.

opecs. Tops will be removed from these gaps, to racilitate scalinication after the harvest.

Next Step SitePrep, Scarification; Seeding, Hand Seed; Monitoring, Natural Regen (Intermediate); Pesticide, Other - Specify

Treatments:

Acceptable Sugar maple, basswood, white ash, red maple, and birch.

Regen:

Other The DNR in cooperation with Michigan State University is starting a research project to study regeneration of northern hardwoods under different

<u>Comment:</u> treatment regimes. This treatment was approved in July of 2016 via a chapter 7 request.

Proposed Start Date: 07/22/2016

1833002018-Cut20.0 4110 - Sugar MapleSawtimber97141-HarvestSingle Tree411 - NorthernUneven-ProposalAssociationWell170SelectionHardwoodAged

Habitat Cut: No Site Condition:

Prescription Selection thin stand to 60-80 basal area with 70 being ideal. Release crop trees.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Basswood, maple, ash

Regen:

Other Comment:

Escanaba Mgt. Unit Report 3 -- Treatments Compartment: 2 s Year of Entry: 2019 а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Approval n Age Method Objective Name Density Age Structure **Status** d CoverType Range Type 33002019-Cut 19 17.8 4110 - Sugar Maple Sawtimber 97 171-Harvest Single Tree 411 - Northern Uneven-Proposal Association Well 200 Selection Hardwood Aged **Habitat Cut: No Site Condition:** Prescription Selection thin stand to 60-80 basal area with 70 being ideal. Release crop trees. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable aspen, basswood, maple, ash, spruce Regen: Other Comment: Proposed Start Date: 10/01/2018 33002020-Cut 8.8 4199 - Other Mixed Sawtimber 72 81-110 Harvest Clearcut with 4134 - Aspen. Even-Aged Proposal **Upland Deciduous** Medium Retention Spruce/Fir **Habitat Cut: No** Site Condition: Prescription Cut all trees greater than 3" dbh except leave buffer to drainage for retention.. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: <u>Acceptable</u> aspen, balm, cherry, basswood, balsam, spruce Regen Other Two survey corners needed. Comment: **Proposed Start Date:** 10/01/2018 33002024-NF 310 - Herbaceous Nonstocked Unspec NonForestMqt Herbaceous/Crop/ 310 -Proposal Openland ified **Grass Planting** Herbaceous Openland **Habitat Cut: No 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:** Acceptable Other Comment: Proposed Start Date: 10/01/2018 33002027-Cut 10.3 4191 - Mixed Poletimber 4134 - Aspen, 32 Immatu Harvest Clearcut Even-Aged Proposal

Regen:

Upland Deciduous Spruce/Fir

Well re

with Conifer

Habitat Cut: No Site Condition:

Prescription Cut all trees greater than 3" dbh. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, balsam, cherry, basswood, spruce

Regen:

Other Spruce budworm defoliation in majority of balsam and spruce trees. No retention due to forest health recommendations to remove moth inceptor

Comment:

Escanaba Mgt. Unit Report 3 -- Treatments Compartment: 2 s Year of Entry: 2019 а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Approval n Method Objective Status Name Density Age Structure d CoverType Range Type 33002031-Cut 31 24.8 6118 - Lowland Poletimber 84 Unspec Harvest Clearcut with 613 - Lowland Even-Aged Proposal Deciduous with Mixed Forest Well ified Retention Cedar **Habitat Cut: No Site Condition:** Prescription West of drain cut all 3" and greater, buffer drain, and east of the drain cut all 3" and greater except cedar and hemlock only cut cedar for operational purposes east of drain. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable aspen, balm, balsam, spruce, cedar, tamarack, maple Regen: Other Comment: **Proposed Start Date:** 10/01/2018 33002033-NF 1.6 3102 - Grass Nonstocked Unspec NonForestMgt Herbaceous/Crop/ 310 -Proposal ified **Grass Planting** Herbaceous Openland **Habitat Cut: No Site Condition:** Prescription Prescribed fire, farming (dozing, disking, raking, herbiciding, seeding (native or naturalized species only)), fertilizing and liming, brushhog/saw removal Specs: of competing trees and establishment of native hard and soft mast producers such as red oak, crabapple or others. Next Step Treatments: <u>Acceptable</u> Regen: Other Comment: 10/01/2018 **Proposed Start Date:** 4.0 4110 - Sugar Maple Sawtimber 33002037-Cut Single Tree 411 - Northern Uneven-Proposal 111-Harvest Association 140 Selection Hardwood Aged **Habitat Cut: No Site Condition:** Prescription Selection thin stand to 60-80 basal area with 70 being ideal. Release crop trees. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable maple, basswood, ash Regen: Other Comment: **Proposed Start Date:** 10/01/2018 33002040-Cut 31.0 4110 - Sugar Maple Sawtimber 141-411 - Northern Proposal Harvest Single Tree Uneven-Association Well 170 Selection Hardwood Aged

Comment:

Treatments:

Specs: Next Step

Habitat Cut: No

Proposed Start Date: 10/01/2018

Acceptable maple, basswood, ash

Site Condition:

Monitoring, Natural Regen (Re-Inventory)

Prescription Selection thin stand to 60-80 basal area with 70 being ideal. Release crop trees.

Regen:

Other Comment:

Proposed Start Date: 10/01/2018

19.5 6119 - Mixed Clearcut with 613 - Lowland 48 33002048-Cut Sawtimber Unspec Harvest Even-Aged Proposal Well ified Retention Mixed Forest

Lowland Deciduous

Forest

Habitat Cut: No Site Condition:

Prescription Cut all trees greater than 3" dbh except leave some oak, yellow birch and cedar for mast and seed trees.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable maple, oak, spruce, balsam, ash

Regen:

Other Comment:

	Esca	naba Mgt. Unit		Re	port 3	Treatme	nts	Compart	TOF NATURAL	
S t								Year of I	DNR	
a n Treatment d Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
49 33002049-Cut	36.0 4	110 - Sugar Maple Association	Sawtimber Well	97	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
Habitat Cut: No Prescription Selection Specs:	on thin stan	Site Condition: d to 60-80 basal are	ea with 70 b	eing ide	eal. Releas	se crop trees.				
lext Step Monitori reatments:	ing, Natura	l Regen (Re-Invento	ory)							
<u>acceptable</u> maple, l Regen:	basswood,	spruce, ash								
<u>Other</u> Comment:										
Proposed Start Date:	10/01/	2018								
50 33002050-Cut	11.4	4319 - Mixed Upland Forest	Poletimber Medium	35	81-110	Harvest	Clearcut	4319 - Mixed Upland Forest	Even-Aged	Proposal
labitat Cut: No Prescription Cut all to Epecs:	rees greate	Site Condition: er than 3" dbh.						·		
lext Step Monitori reatments:	ing, Natura	l Regen (Re-Invento	ory)							
<u>kcceptable</u> aspen, l <u>Regen:</u>	balsam, ch	erry, oak, maple, sp	ruce, ash							
Other Spruce Somment: trees.	budworm o	defoliation in majorit	y of balsam	and sp	ruce trees	. No retention of	due to forest health	recommendations	to remove mo	th inceptor
Proposed Start Date:										
52 33002052-Cut	9.1 4	110 - Sugar Maple Association	Sawtimber Well	97	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
Habitat Cut: No Prescription Selection Opecs:	on thin stan	Site Condition: d to 60-80 basal are	ea with 70 b	eing ide	eal. Releas	se crop trees.				
lext Step Monitori	ing, Natura	l Regen (Re-Invento	ory)							
<u>kcceptable</u> maple, l <u>Regen:</u>	basswood,	ash								
<u>Other</u> Comment:										
Proposed Start Date:	10/01/	2018								
55 33002055-Cut	8.7 C	6129 - Mixed oniferous Lowland Forest	Poletimber Medium	99	Unspec ified	Harvest	Clearcut with Retention	6129 - Mixed Coniferous Lowland Forest	Even-Aged	Proposal
labitat Cut: No		Site Condition:								

Prescription Cut all trees greater than 3" dbh except cut cedar greater than 6" dbh.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable tamarack, spruce, maple, aspen, balm, cedar

Regen:

<u>Other</u> Comment:

		Fac	anala Met Unit		D.		Tuestues	4	_		OF NATURA
S t		ESC	canaba Mgt. Unit		ке	port 3	Treatme	nts	Compart Year of	tment: 2 Entry: 2019	DNR DUR
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
57	33002057-Cut	3.2	4119 - Mixed Northern Hardwoods	Sawtimber Well	82	141- 170	Harvest	Clearcut	4319 - Mixed Upland Forest	Even-Aged	Proposal
		trees grea	Site Condition: ater than 3" dbh.								
<u>Next</u> Treat	Step Monitor ments:	ring, Natu	ıral Regen (Re-Invent	ory)							
Acce Rege		maple, b	eech, balsam, spruce								
Other Comi	<u>r</u> ment:										
Propo	osed Start Date	10/0	01/2018								
60	33002060-Cut	9.8	4110 - Sugar Maple Association	Sawtimber Well	82	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
		on thin sta	Site Condition: and to 60-80 basal are	ea with 70 b	eing ide	eal. Releas	se crop trees.				
Next Treat	Step Monitor	ring, Natu	ıral Regen (Re-Invent	ory)							
Acce Rege		basswoo	od, ash								
Other Com	<u>r</u> ment:										
Propo	osed Start Date	10/0	01/2018								
61	33002061-Cut	9.5	4110 - Sugar Maple Association	Sawtimber Well	84	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
		balsam a	Site Condition: nd spruce greater tha	n 3" dbh du	e to SB\	W. Select	ion thin stand to	60-80 basal area	with 70 being ideal	. Release crop	trees.
Next Treat	Step Monitor	ring, Natu	ıral Regen (Re-Invent	ory)							
Acce Rege		basswoo	od, aspen, ash								
Other Comi											
Propo	osed Start Date	10/0	01/2018								

Habitat Cut: No

63 33002063-Cut

Association **Site Condition:**

2.1 4110 - Sugar Maple Sawtimber

<u>Prescription</u> Cut all balsam and spruce greater than 3" dbh due to SBW. Selection thin stand to 60-80 basal area with 70 being ideal. Release crop trees.

111-

140

81

Well

Specs:

Harvest

Single Tree

Selection

411 - Northern

Hardwood

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable maple, basswood, beech, ash, aspen

Regen:

Other Comment:

Proposed Start Date: 10/01/2018 Proposal

Uneven-

Aged

Escanaba Mgt. Unit

Compartment: 2

Year of Entry: 2019

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	
64	33002064-Cut	15.6	4119 - Mixed Northern Hardwoods	Sawtimber Well	77	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal	

Habitat Cut: No Site Condition:

Prescription Cut all balsam and spruce greater than 3" dbh due to SBW. Selection thin stand to 60-80 basal area with 70 being ideal. Release crop trees.

Specs:

s

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable maple, basswood, ash, aspen

Regen: Other Comment:

Proposed Start Date: 10/01/2018

65 33002065-Cut 42340 - Upland Poletimber 111-4319 - Mixed Harvest Clearcut with Even-Aged Proposal Well **Upland Forest** Spruce/Fir 140 Retention

Habitat Cut: No Site Condition:

Prescription Cut all trees greater than 3" dbh except leave unmerchantible patches of small diameter aspen.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, balm, balsam, spruce

Regen:

Other Comment:

Proposed Start Date: 10/01/2018

33002068-Cut 8.0 4110 - Sugar Maple Poletimber 171-Harvest Single Tree 411 - Northern Uneven-Proposal Well Association 200 Selection Hardwood Aged

Habitat Cut: No Site Condition:

<u>Prescription</u> Selection thin stand to 60-80 basal area with 70 being ideal. Release crop trees.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable maple, basswood, birch, ash

Regen:

Other Comment:

Proposed Start Date: 10/01/2018

33002074-Cut 9.3 4319 - Mixed Poletimber 35 111-Harvest Clearcut with 4319 - Mixed Even-Aged Proposal **Upland Forest** Well 140 Retention **Upland Forest**

Habitat Cut: No Site Condition:

Prescription Cut all trees greater than 3" dbh except leave good quality pine.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, balsam, spruce, pine

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

Total Treatment 447.7 Acreage Proposed:

Escanaba Mgt. Unit

Compartment: 002 Year of Entry: 2019



Report 5 - 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
	Potential Old Growth		SCA Removal	8
Comments				
Does not meet SCA criteria.				
	Potential Old Growth		SCA Removal	181
Comments				
Does not meet SCA criteria.				

Escanaba Mgt. Unit Compartment: 2
Year of Entry 2019



Report 6 - 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.

Conservati Area	on Type	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 oxygen cond stocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	les (e.g., slimy sculpin) to persist from se conditions due to substantial
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wilproposed for legal dedication, but for which legal dedication by legal nomination process is defined by Part 351, Wilderness and Nature Environmental Protection Act, 1994 PA 451. The program is admirequire the submittal of a Natural Areas Nomination Packet to the proposed sites in various stages of review. Final dedication of no Areas is accomplished through legislative action.	egislature has not occurred. The ral Areas, of the Natural Resources and ninistered by the DNR. Nominations e DNR. This is an active program, with
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness and and Environmental Protection Act, 1994 PA 451. The program is require the submittal of a Natural Areas Nomination Packet to the proposed sites in various stages of review. Final dedication of no Areas is accomplished through legislative action.	administered by the DNR. Nominations e DNR. This is an active program, with

S Escanaba t		Mgt. Unit		Report 7	- Forested	Stands Compartment: 2 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4134 - Aspen, Spruce/Fir	Sapling Well	19.2	10	Immature	Stand was cut in 1997 under contract 33-012-94-01. Trace of paper birch and hemlock with larger retained white pine and cedar. Open areas in the aspen are now filling in with conifers.
2	6120 - Lowland Cedar	Sawtimber Well	17.4	111	Unspecified	Cedar in northeast part of stand is denser then the rest. Larger diameter tamarack and black spuce with mortality.
3	4134 - Aspen, Spruce/Fir	Poletimber Well	49.8	35	Unspecified	Stand was cut in 1982. Trace of oak and pine.
4	6118 - Lowland Deciduous with Cedar	Sawtimber Medium	12.8	76	Unspecified	Stand has defoliation and mortality from SBW.
5	4134 - Aspen, Spruce/Fir	Sapling Well	21.2	14	Immature	Stand was cut in 2003 under contract 33-026-01-01. Good regeneration within stand.
6	4134 - Aspen, Spruce/Fir	Poletimber Well	9.7	41	Unspecified	Heavy mortality already in balsam and spruce most likely due to SBW. Some larger spruce/fir that still have some green needles but harvester would smash smaller aspen to get to the scattered trees.
7	4136 - Aspen, Mixed Conifer	Sapling Well	26.7	5	Immature	Stand was cut in 2012 under contract 33-033-09-01. Large white pine seed trees and some cedar was retained. Good aspen sproating with balm and tamarack in lower areas.
8	6120 - Lowland Cedar	Sawtimber Well	9.8	111	Unspecified	Cedar stand with a trace of balm, white pine, paper birch and black ash. Creek/drainage flows through stand.
9	6120 - Lowland Cedar	Sawtimber Well	3.8	121	201+	Nice dense cedar stand.
10	6120 - Lowland Cedar	Sawtimber Well	2.3	111	Unspecified	Decent cedar stand with variable diameters. Tamarack has mortality.
11	4110 - Sugar Maple Association	Sawtimber Well	45.3	97	81-110	Stand was thinned in 1982 and 2003. Some areas in the southern part of the stand still have orange paint that was not cut during last thinning. This area has a higher basal area(close to 200) but comprised mostly of smaller diameter basswood. Paper birch that was retained is now dead.
13	4134 - Aspen, Spruce/Fir	Sawtimber Well	15.2	36	Unspecified	Pockets of large aspen mixed in with smaller diameter aspen. The large aspen are showing mortality as well as spruce/fir heavily defoliated by SBW. South end of stand thicker to balsam and spruce with small diameter aspen. Some trace of sugar maple and white pine.
15	4130 - Aspen	Sapling Well	32.8	23	Immature	Stand was cut in 1994 under contract 33-010-94-01. Thick aspen with some other species mixed in.
16	4130 - Aspen	Sapling Well	12.2	17	Immature	Stand was cut in 2000 under contract 33-023-99-01. Larger diameter balsam and spruce must have been retained which accounts for the larger diameter compared to the other species.

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a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
17	4110 - Sugar Maple Association	Sawtimber Well	28.5	97	141-170	MWR-Walters Roloff Project experimental plot.
18	4110 - Sugar Maple Association	Sawtimber Well	20.0	97	141-170	Part of stand was thinned in 2000. The steep sections of the ridge does not appear like it has been thinned.
19	4110 - Sugar Maple Association	Sawtimber Well	17.9	97	171-200	Part of the stand was thinned in 2003 under contract 33-026-01- 01. It appears that the steeper part of the ridge was not thinned because basal area is much higher. The balsam and spruce is primarily along the Detemple Road and has budworm defoliation.
20	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	8.8	72	81-110	No cutting record for this stand. Large, over mature trees with mortality. Also, spruce bud worm defoliating the balsam and spruce.
22	6120 - Lowland Cedar	Poletimber Well	2.8	116	Unspecified	Good quality stand.
23	4134 - Aspen, Spruce/Fir	Sapling Well	19.4	20	Immature	Stand was cut in 1997 under contract 33-012-94-01. Poor sprouting occurred due to over mature condition of stand when cut. Better stocking density currently as fills in with seedlings.
25	4134 - Aspen, Spruce/Fir	Sapling Well	48.8	5	Immature	Stand was cut in 2012 under contract 33-033-09-01. Good aspen sprouting but browsed on.
26	6120 - Lowland Cedar	Poletimber Well	3.0	103	Unspecified	Average quality cedar stand.
27	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	10.3	32	Immature	Even though stand was cut in 1985, good amount of trees are large diameter. All balsam and spruce have defoliation due to budworm. Good distribution of aspen with variable diameter/age. Should sprout back really well after harvest.
28	4134 - Aspen, Spruce/Fir	Sapling Medium	6.5	5	Immature	Stand was cut in 2012 under contract 33-033-09-01. Seed trees remain mixed in with the regeneration.
29	6120 - Lowland Cedar	Poletimber Well	1.4	103	Unspecified	Small, wet stand with four patches of cedar surrounded by ash and tag alder.
30	4119 - Mixed Northern Hardwoods	Poletimber Well	5.7	77	81-110	Stand was thinned in 2012 under contract 33-033-09-01. Residual basal area was 76 and being managed for sugar maple sawlogs.
31	6118 - Lowland Deciduous with Cedar	Poletimber Well	24.8	84	Unspecified	Past inventory lumped this stand in with a large cedar stand to the east. This stand has a larger composition of ash with other deciduous trees to justify deliniating it out from the more dense cedar stand.
32	4130 - Aspen	Poletimber Well	60.8	20	Immature	Stand was cut in 1986-87 under contract 33-067-83-01. Some patches of hardwood remain.
34	6120 - Lowland Cedar	Poletimber Well	58.2	103	141-170	Low quality swamp cedar stand.

s t	Escanaba	Mgt. Unit		Report 7	- Forested	Stands Compartment: 2 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
35	4319 - Mixed Upland Forest	Poletimber Medium	13.0	32	Immature	Stand was cut in 1985. Open stand with some larger balsam and spruce having budworm defoliation. Low density and small diameter reason for not harvesting due to SBW.
36	6115 - Lowland Ash	Poletimber Medium	14.9	109	Unspecified	Small diameter ash with tag alder filling in open areas.
37	4110 - Sugar Maple Association	Sawtimber Well	4.0	84	111-140	Stand was thinned in 2001 under contract 33-024-99-01. No regeneration accept ironwood. Trace of beech and aspen.
38	4130 - Aspen	Sapling Well	9.7	16	Immature	Stand was cut in 2001 under contract 33-024-99-01. Stand is thickening up since last inventory.
39	4130 - Aspen	Poletimber Well	5.0	27	Immature	Stand was cut in 1990 under contract 33-052-88-01. Aspen with some conifer mixed in.
40	4110 - Sugar Maple Association	Sawtimber Well	31.0	84	141-170	Stand was thinned in 2001 under contract 33-24-99-01. This is a better quality northern hardwood stand dominated by sugar maple and basswood.
41	4134 - Aspen, Spruce/Fir	Poletimber Well	16.0	21	Immature	Cut in 1996 under contract 330041095-01. Nice balsam and spruce have budworm defoliation quite noticable but minimal mortality currrently in the stand. Treat stand early due to forest health recommendations.
44	4134 - Aspen, Spruce/Fir	Sapling Well	61.2	24	Immature	Stand was cut in 1993 under contract 33-051-88-01. Stand was cut over a few years time with a 10 acre fire in the sale during summer of 1995. Regenerated quit well.
45	4110 - Sugar Maple Association	Poletimber Poor	16.1	82	1-50	Stand was shelterwood cut in 2012 on contract 33-033-09-01. 26 basal area was marked to retain. Stand is being managed for a mix of hardwood, balsam, spruce and aspen.
46	4110 - Sugar Maple Association	Sawtimber Well	32.9	97	111-140	Stand was thinned in 2002 under contract 33-024-99-01. Nice hardwood stand with majority pole size and some sawlogs.
47	4139 - Aspen, Mixed Deciduous	Poletimber Well	6.4	19	Immature	Stand was clearcut except leave oak in 1998 under contract 33-041-95-01. In lower part of stand are swamp white oak trees. Aspen regeneration is dense with other species mixed in. An old barrow pit in south end of stand along Detemple Road is filling in with spruce, balm and aspen.
48	6119 - Mixed Lowland Deciduous Forest	Sawtimber Well	19.5	74	Unspecified	Stand was thinned in 2001 under contrace 33-024-99-01. Most of the balsam and spruce have budworm defoliation. Larger amount of ash in the lower area should be treated for forest health concerns.
49	4110 - Sugar Maple Association	Sawtimber Well	36.0	97	111-140	Stand was thinned in 2001 under contract 33-024-99-01. Higher concentration of sugar maple compared to the other hardwood stands in the compartment. Contains larger diameter and better quality.

s t	Escanaba	Mgt. Unit		Report 7	- Forested	Stands Compartment: 2 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
50	4319 - Mixed Upland Forest	Poletimber Medium	11.4	35	81-110	Stand was thinned in 2001 under contrace 33-024-99-01. Most of the residual balsam and spruce have budworm defoliation. Larger amount of ash in the lower area should be treated for forest health concerns.
51	4319 - Mixed Upland Forest	Sapling Well	12.3	9	Immature	Stand was cut in 1998 under contract 33-041-95-01. It is filling in more since what last inventory reported.
52	4110 - Sugar Maple Association	Sawtimber Well	9.1	97	111-140	Stand was thinned fall of 2001 under contract 33-024-99-01. Higher concentration of basswood compared to adjacent stands.
53	4130 - Aspen	Poletimber Well	10.0	42	Unspecified	Stand was cut in 1975. There is a 1-2 acre patch of hardwood knob within the aspen.
54	4139 - Aspen, Mixed Deciduous	Sapling Well	6.4	19	Immature	Stand was cut in 1998 under contract 33-041-95-01. Nice regeneration.
55	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	8.7	99	Unspecified	The quality of stand improves as move south through stand. Some mortality in tamarack appearing like eastern larch beetle damage.
56	6121 - Tamarack	Poletimber Medium	6.3	35	Unspecified	Stand was cut in 1982. There is a trace of red maple and birch. After the cut, some area's regenerated better than the rest creating some very dense patches. Now tamarack is filling in the more open areas of the stand.
57	4119 - Mixed Northern Hardwoods	Sawtimber Well	3.2	82	141-170	This is a small upland stand surrounded by swamp on three side with a past clearcut stand on the fourth side.Stand does not show evidence of any past harvest. Trace amounts of paper birch, tamarack and cedar.
58	6120 - Lowland Cedar	Poletimber Medium	15.7	99	Unspecified	Low density stand with tamarack seedlings coming up in the more open areas. Larger tamarack has mortality appearing from ELB.
59	4130 - Aspen	Sapling Well	5.6	19	Immature	Cut in 1998 under contract 33-042-95-01. Clearcut with nice, thick regeneration.
60	4110 - Sugar Maple Association	Sawtimber Well	9.8	82	111-140	Stand was thinned in 1998 under contract 33-042-95-01. This stand is dominated by sugar maple and basswood. Trace amounts of beech, balsam and spruce. Conifers mostly along the north west line with young aspen stand.
61	4110 - Sugar Maple Association	Sawtimber Well	9.5	84	111-140	Thinned in 1998 under contract 33-042-95-01. Trace of beech, white ash and white spruce.
62	4134 - Aspen, Spruce/Fir	Sapling Well	12.3	19	Immature	Cut in 1998 under contract 33-042-95-01. Good aspen regeneration. Larger cherry and balsam must be residual from the harvest. Trace amounts of beech, ironwood, maple and basswood.

S t	Escanaba	Mgt. Unit		Report 7	- Forested	Stands Compartment: 2 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
63	4110 - Sugar Maple Association	Sawtimber Well	2.1	81	111-140	Select cut in 1998 under contract 33-042-89-01. There is a trace of beech and white ash. This stand is a small part of a large northern hardwood stand on private property.
64	4119 - Mixed Northern Hardwoods	Sawtimber Well	15.6	77	111-140	Stand was thinned in 1999-2000 under contract 33-025-99-01. Topography changes makes this a mixed stand which is infected with SBW.
65	42340 - Upland Spruce/Fir	Poletimber Well	24.4	45	111-140	Part of stand was cut in 1991 under contract 33-024-89-01. The sale specs were to cut that will yield a pulpwood stick except leave cherry, but there is fir and spruce averaging 8"dbh. Treatment due to SBW presence in the stand and good quantity of saleable timber. Trace amount of basswood, ash, and maple.
66	6120 - Lowland Cedar	Poletimber Well	38.9	109	Unspecified	Swamp cedar stand with sphagnum moss and some grass. Tamarack and black ash concentrated more along west side with some mortality in the tamarack. Trace of paper birch.
67	6120 - Lowland Cedar	Poletimber Well	174.7	110	201+	Big cedar swamp with some old winter roads. The southern part has some areas that are less dense containing tag alder and a little higher concentration of tamarack.
68	4110 - Sugar Maple Association	Poletimber Well	8.0	84	171-200	No sign of a thinning. High density and small diameter in need of a thinning to release.
69	6112 - Lowland Aspen	Sapling Well	27.6	40	Unspecified	A mixed stand that was cut in 1977. Trace of white pine and hemlock in this diverse stand.
70	6120 - Lowland Cedar	Poletimber Medium	25.7	110	Unspecified	Patchy cedar stand with open areas of tag and mixed conifer. South end of stand is denser than the north.
71	4110 - Sugar Maple Association	Sawtimber Well	5.6	86	51-80	Stand was selection thinned in 2014 under contract 33-034-09-01. Looks like a good thinning within the targeted BA range.
72	429 - Mixed Upland Conifers	Poletimber Medium	6.9	24	1-50	This stand started from a timber trespass under contract 54-79-01. Red Pine was planted in 1993 but poor quality and density with several having the tops dead in them. Some oak planted in the center of the stand. SBW starting to defoliate. Trace of spruce.
73	4110 - Sugar Maple Association	Sawtimber Well	10.8	83	51-80	Stand was thinned in 2014 under contract 33-034-09-01. Good basal area retained. Trace of white ash, spruce, hemlock, paper birch and balsam.
74	4319 - Mixed Upland Forest	Poletimber Well	9.3	35	111-140	Stand was cut in 1982 under contract 33-054-79-01. Spruce budworm very noticeable in stand and mortality will start soon. Nice tall fir that are 5-7 sticks tall. Trace of white pine, maple and ash.
75	6120 - Lowland Cedar	Poletimber Well	8.8	124	111-140	Cedar is better quality and density along upland sides. Smaller black ash mostly along south east portion of stand. Trace of yellow birch and maple.

S t a n d	Escanaba Mgt. Unit			Report 7	Forested	Stands Compartment: 2 Year of Entry: 2019
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
76	42340 - Upland Spruce/Fir	Sapling Well	1.5	32	Immature	Stand was cut in 1985 under contract 33-054-79-01. Trace of black spruce, cherry, maple and tamarack. Some SBW in stand but not merchantable size.
77	4130 - Aspen	Poletimber Well	30.3	32	Immature	Cut in 1985 under contract 33-034-09-01. Variable diameter with some larger balsam showing signs of SBW but majority of balsam is small diameter with thick aspen surrounding them.
79	6111 - Lowland Balsam Poplar	Poletimber Medium	12.0	32	Immature	Cut in 1985 under contract 33-034-09-01. Very wet in south east corner and is where most of the black ash and cedar is located. A small upland ridge extends out from private in the north east part of the stand containing a trace of maple and basswood.

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Stand	Cover Type	Acres	Managed Site	General Comments:
12	3102 - Grass	8.3	No	Grass opening that is filling in with spruce, cherry and aspen.
14	310 - Herbaceous Openland	2.2	No	Grass opening encroached by aspen, spruce and cherry.
21	623 - Emergent Wetland	4.2	No	Seasonally containing water.
24	310 - Herbaceous Openland	6.1	No	Grass opening filling in with cherry, balm, aspen and spruce.
33	3102 - Grass	1.6	No	Grass opening filling in with cherry and spruce.
42	623 - Emergent Wetland	11.6	No	Full of water in the springtime.
43	310 - Herbaceous Openland	2.1	No	Grass opening that is filling in with balsam and cherry.
78	622 - Lowland Shrub	8.5	No	Small creek flows through this lowland stand containing old beaver flooding areas.