



# Compartment Review Presentation

## Escanaba Forest Management Unit

Compartment 33077

Entry Year 2019

Acreage: 1,731

County Delta

Management Area: Green Bay Lake Plain

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**Revision Date:** 2017-06-30

**Stand Examiner:** Dan Racine

**Legal Description:**

T 37N R 24W Sections 16, 17 and 18.

**Identified Planning Goals:**

The treatments within the upland cover types are mainly within the northern hardwood and mixed pine cover types. The treatments within the northern hardwood cover types are selection harvests designed to enhance the site quality and promote regeneration. The treatments within the mixed pine types are designed to encourage regeneration through shelterwood harvests leaving a pine seed source. The lowland cover type treatments are designed to regenerate the existing overstory species with seed tree harvests within the lowland spruce cover types and clearcuts within the lowland deciduous and conifer cover types.

**Soil and topography:**

The soils in this compartment are composed of Onaway fine sandy loam, Onaway Solona, Pemene-Nadeau, Nadeau fine sandy loam, Lupton-Cathro, and Loxley Dawson. The soils are mostly poorly drained with well drained to somewhat well drained soils in the upland ridges. The entire compartment is nearly level with areas of depressions and upland ridges.

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

This compartment is surrounded by state and private land with some private parcels interspersed throughout.

**Unique Natural Features:**

7 Mile Marsh complex.

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

None known.

**Special Management Designations or Considerations:**

There are several stands proposed as "Special Conservation Area" within the Seven Mile Marsh complex.

**Watershed and Fisheries Considerations:**

**Wildlife Habitat Considerations:**

Ecological Context: This compartment is within a sand lake plain located between Escanaba and Menominee. This plain historically supported forests of hemlock and white pine on ridges, and extensive swamps of cedar, black spruce, and tamarack in low areas. Broad upland areas sometimes supported northern hardwood forests of beech and sugar maple. Wind throw was the most common natural disturbance regime. During the past 100 years aspen has increased greatly while white pine, red pine, hemlock, and cedar have declined.

Recommendations: This compartment is mainly lowland conifer forest comprised of cedar swamp and spruce with some hardwood and red pine ridges scattered throughout. Treatments throughout this compartment occur through out varied cover types and the management will improve the quality of habitat for wildlife associated with them.

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

Compartment 77: Sections 16-18, T37N R24W, Delta County

There is no known metallic mineral potential in this area, perhaps mostly due to the great depth to Precambrian rocks that may have metallic minerals. There may be some limestone/dolostone potential within the compartment where bedrock is at or near the surface. Limestone is quarried for stone near Escanaba. A former sand/gravel pit is located in Section 10, but sand and gravel potential within the compartment appears to be relatively low. No economic oil and gas production has been found in the UP.

**Vehicle Access:**

The access to the compartment is along the 7 Mile Marsh Road.

**Survey Needs:**

Survey corners for property line establishment of proposed treatments will be required.

**Recreational Facilities and Opportunities:**

The Forest Island ORV trail traverses this compartment. The main recreational opportunities are ORV riding, hunting, and sight seeing.

**Fire Protection:**

There are no significant fire dangers within this compartment.

**Additional Compartment Information:**

The following reports from the Inventory are attached:

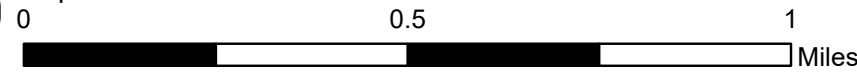
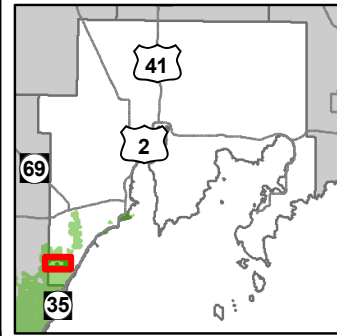
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

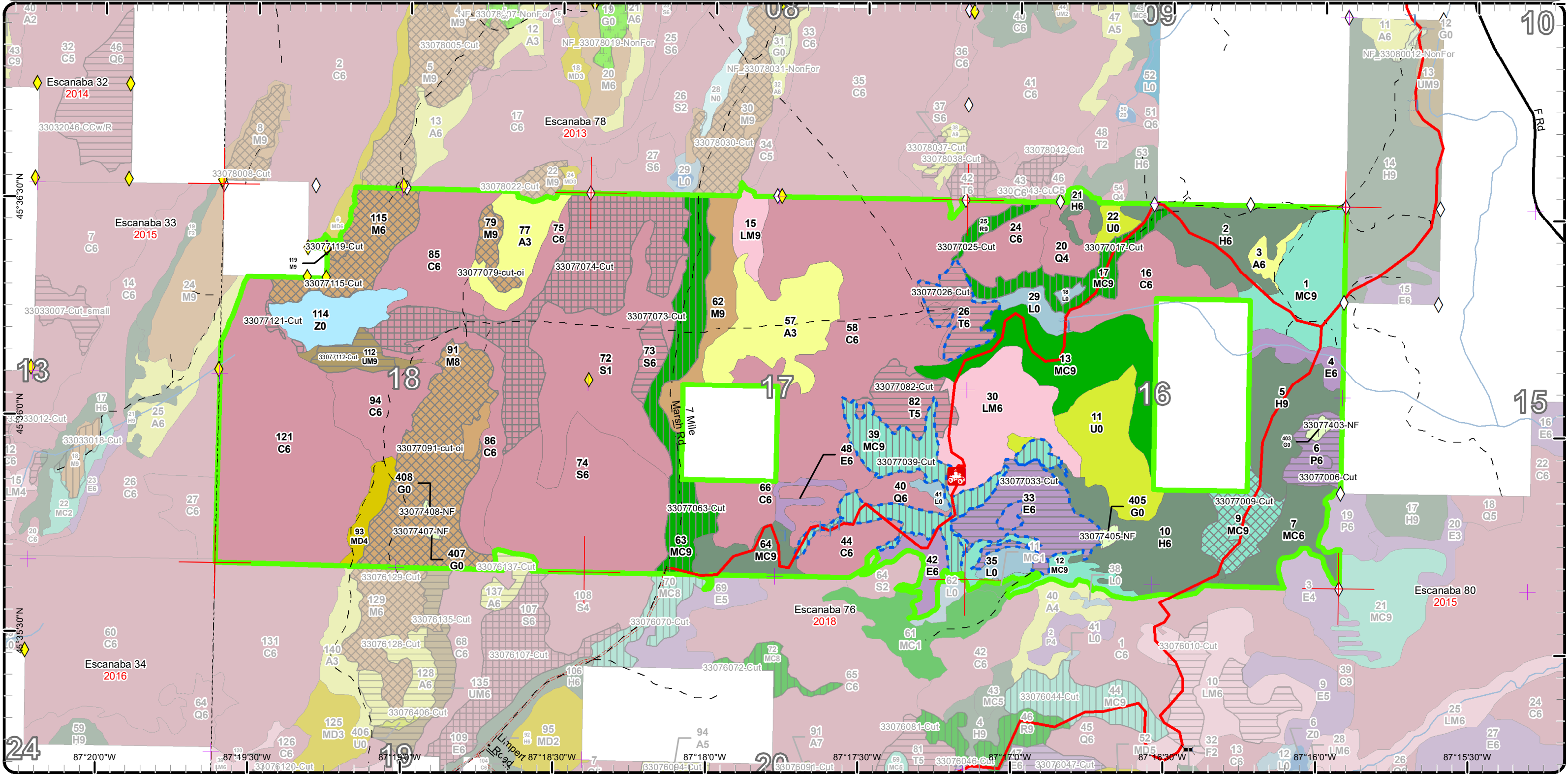
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

Compartment: 77  
 T37N-R24W Sec. 16-18  
 County: Delta  
 Unit: Escanaba  
 Mgmt Area: Green Bay Lake Plain  
 YOE: 2019  
 Acres: 1731 GIS Calculated  
 Examiner: Dan Racine  
 Map Revised: 7/5/2017  
 Map Phase: Web-Post

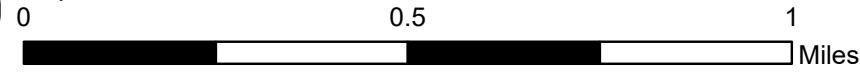
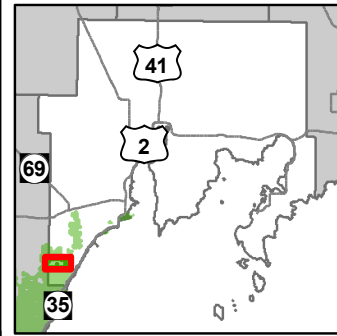


- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Counties
- Bridge
- Culvert
- ORV Trails
- Designated ATV Trails
- Designated ORV Route
- Paved Roads
- Poor Dirt Roads
- Streams
- Lakes and Rivers All
- Compartment Boundary
- Treatments with Site Conditions
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Opening Maintenance
- Shelter Wood (w/Reserves)
- Seed Tree (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- Lakes

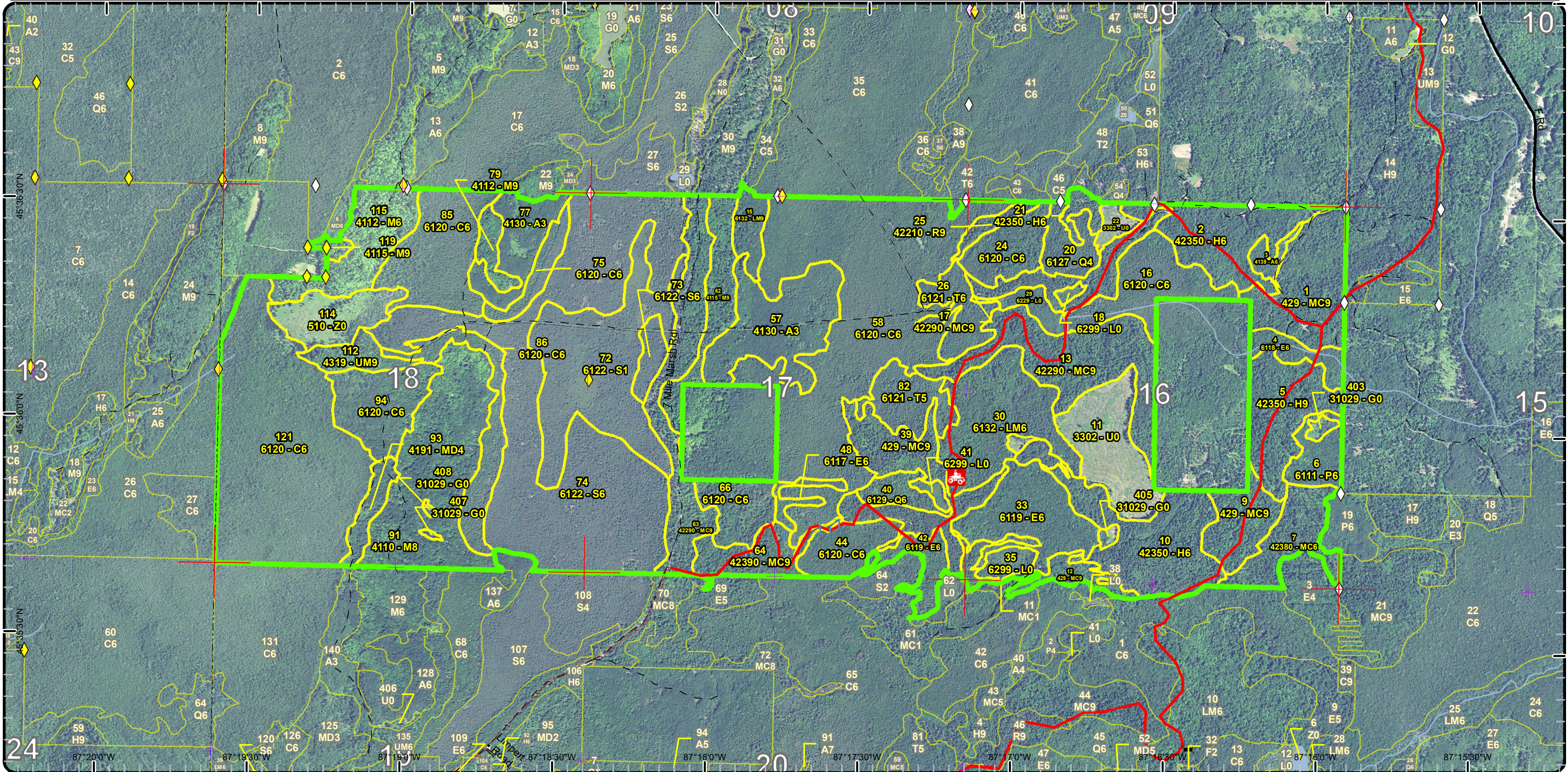


# Stand Boundary Map

Compartment: 77  
 T37N-R24W Sec. 16-18  
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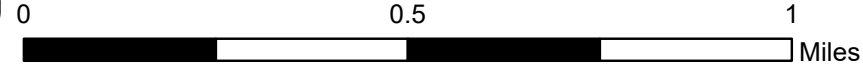
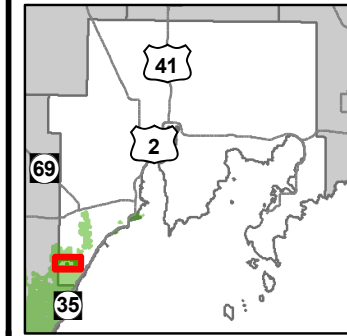


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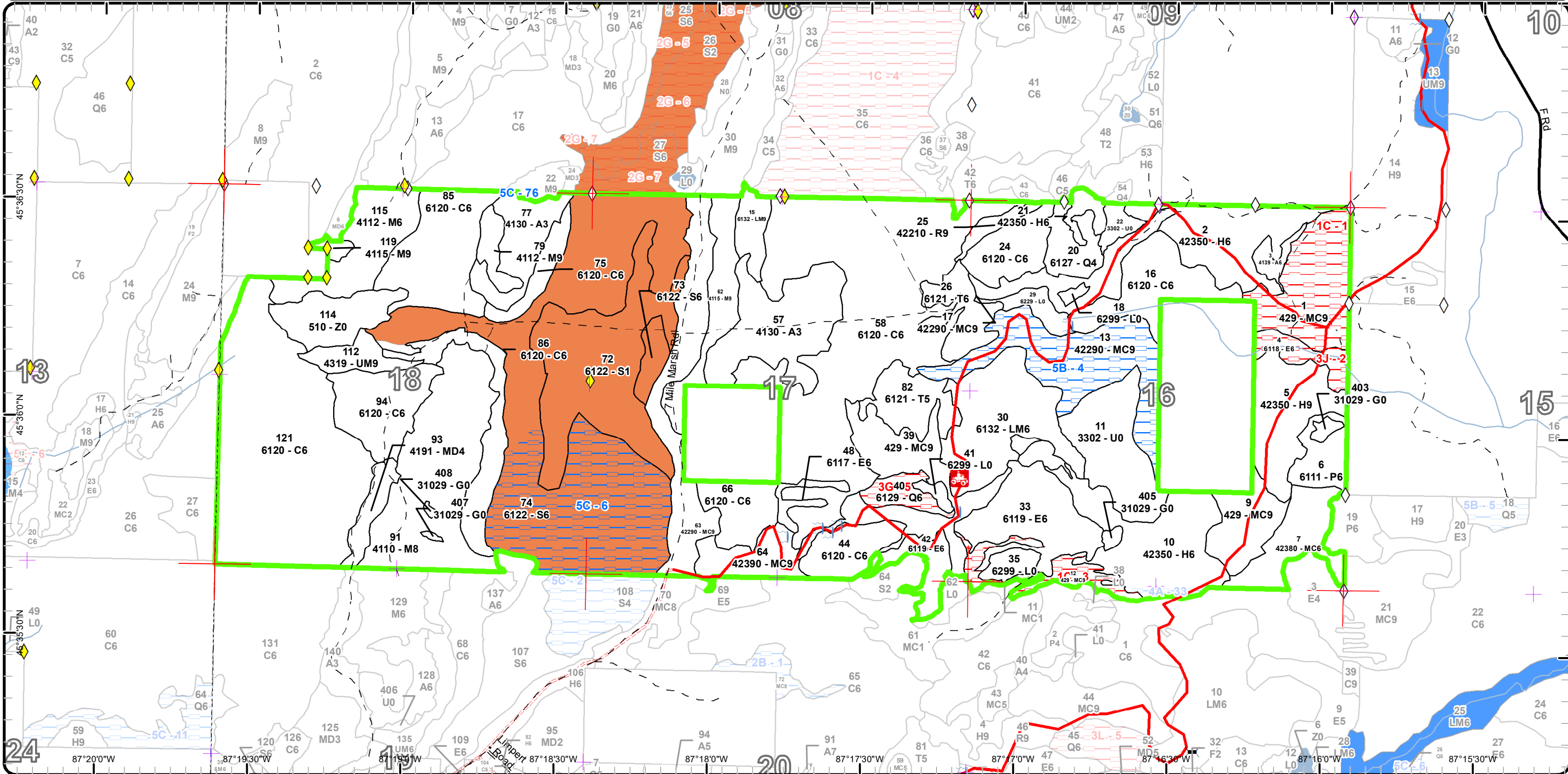


# Special Conservation Areas & Site Conditions Map

Compartment: 77  
 T37N-R24W Sec. 16-18  
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 Unit: Escanaba  
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- Paved Roads
- Poor Dirt Roads
- Streams
- Lakes and Rivers All
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 1C: Other dept or div proc/practices
- 3G: Other Influence zones - See comments
- 3J: Water quality / BMPs (stream, river, or lake)
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes
- Riparian Area
- Other Habitat Area



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	47	23	5	0	0	0	0	0	0	0	0	0	0	0	0	0	75
Cedar	0	0	0	0	0	0	0	0	0	10	0	0	219	105	171	0	0	0	504
Hemlock	0	0	0	0	0	0	0	0	0	0	0	51	0	81	0	0	0	0	132
Herbaceous Openland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Low-Density Trees	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
Lowland Aspen/Balsam Poplar	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	13
Lowland Conifers	0	0	0	0	14	0	0	0	0	0	0	0	0	9	0	0	0	0	23
Lowland Deciduous	0	0	0	5	12	0	0	0	49	0	0	0	0	0	0	0	0	0	66
Lowland Mixed Forest	0	0	0	0	0	0	0	0	51	0	0	0	10	0	0	0	0	0	61
Lowland Shrub	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Lowland Spruce/Fir	0	0	0	0	80	0	0	0	192	0	0	0	0	0	0	0	0	0	272
Mixed Upland Deciduous	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	0	0	120	0	0	0	0	0	120
Northern Hardwood	0	0	0	0	0	0	0	0	118	0	3	0	0	0	0	0	0	24	144
Red Pine	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5
Tamarack	0	0	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	37
Upland Conifers	0	0	0	0	0	0	0	0	46	0	40	0	81	0	0	0	0	0	167
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	11
Water	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
<b>Total</b>	<b>90</b>	<b>0</b>	<b>47</b>	<b>33</b>	<b>10</b>	<b>119</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>503</b>	<b>11</b>	<b>94</b>	<b>219</b>	<b>402</b>	<b>180</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>1730</b>



## Report 2 – Treatment Summary

Escanaba Mgt. Unit

Year of Entry: 2019

Acres of Harvest

Compartment 77

Total Compartment Acres: 1,731

Commercial Harvest - 348  
 Harvests with Site Condition - 99  
 Next Step Harvest - 0  
 Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Cedar	2	0	0	0	0	0	0	0	0	2
Lowland Aspen/Balsam Poplar	13	0	0	0	0	0	0	0	0	13
Lowland Deciduous	36	0	0	0	0	0	0	0	0	36
Lowland Spruce/Fir	8	0	0	91	0	0	0	0	0	98
Natural Mixed Pines	0	0	0	0	64	0	0	0	0	64
Northern Hardwood	0	117	0	0	0	0	0	0	0	117
Red Pine	0	0	0	0	5	0	0	0	0	5
Tamarack	37	0	0	0	0	0	0	0	0	37
Upland Conifers	0	20	0	0	46	0	0	0	0	66
Upland Mixed Forest	10	0	0	0	0	0	0	0	0	10
<b>Total</b>	<b>105</b>	<b>137</b>	<b>0</b>	<b>91</b>	<b>115</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>447</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	447	0	0	0	0	0	0	5	0	452
Next Step	0	0	0	0	0	0	447	0	0	447
<b>Total</b>	<b>447</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>447</b>	<b>5</b>	<b>0</b>	<b>899</b>



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
6	33077006-Cut	12.7	6111 - Lowland Balsam Poplar	Poletimber Well	40	51-80	Harvest	Clearcut with Retention	613 - Lowland Mixed Forest	Even-Aged	Proposal

**Habitat Cut:** No      **Site Condition:**

Prescription Clearcut with retention: Cut all trees except leave retention minimum of 3%.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Balm, maple, birch, mixed conifer species.

Regen:

Other This stand is young and small, however most of the balm was rotten in the center.

Comment:

Proposed Start Date: 10/01/2018

9	33077009-Cut	20.3	429 - Mixed Upland Conifers	Sawtimber Well	122	51-80	Harvest	Group Selection	4319 - Mixed Upland Forest	Two-Aged	Proposal
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**Habitat Cut:** No      **Site Condition:**

Prescription selection/group selection; Cut all trees except hemlock leave some yellow birch and pine for seed trees. Retention in the pocket of younger trees off

Specs: the ORV trail.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Maple, mixed conifer species including hemlock.

Regen:

Other ORV trail through the stand. The residual BA will be between 0 and 100BA depending on the location.

Comment:

Proposed Start Date: 10/01/2018

17	33077017-Cut	19.6	42290 - Natural Mixed Pine	Sawtimber Well	122	51-80	Harvest	Shelterwood with Retention	429 - Mixed Upland Conifers	Two-Aged	Proposal
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**Habitat Cut:** No      **Site Condition:**

Prescription shelterwood/seed: Retain 30 BA leaving much of the hemlock and leaving pine seed trees Orv trail is required for access. Retention is the hemlock

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any mix of pine. Potential for hemlock regeneration under the pine. Acceptable deciduous species regeneration.

Regen:

Other Spec for hemlock harvested that is absolutely necessary for operations.

Comment:

Proposed Start Date: 10/01/2018

25	33077025-Cut	5.1	42210 - Natural Red Pine	Sawtimber Well	122	51-80	Harvest	Shelterwood	429 - Mixed Upland Conifers	Two-Aged	Proposal
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**Habitat Cut:** No      **Site Condition:**

Prescription Shelterwood Seed: Retain approximately 30 BA leaving mostly red pine for a seed source and shading above existing regeneration.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix conifer regeneration.

Regen:

Other The best access is off the ORV trail to the east.

Comment:

Proposed Start Date: 10/01/2018





S 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
26	33077026-Cut	17.1	6121 - Tamarack	Poletimber Well	84	51-80	Harvest	Clearcut with Retention	6121 - Tamarack	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition: No Markets</b>								
<u>Prescription</u> Clearcut: Leave a seed source retention area on west side of stand.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventry)											
<u>Treatments:</u>											
<u>Acceptable</u> Tamarack and black spruce.											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
33	33077033-Cut	36.1	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	87	81-110	Harvest	Clearcut with Retention	613 - Lowland Mixed Forest	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition: No Markets</b>								
<u>Prescription</u> Clearcut with retention: Leave retention of a minimum of 3-10%. Leave some of the largest diameter yellow birch. Keep the sale boundary off the ridge of hemlock and pine.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventry)											
<u>Treatments:</u>											
<u>Acceptable</u> Maple, ash, mixed conifer species.											
<u>Regen:</u>											
<u>Other</u> Best access is through private to east through stand 12 or off the ORV trail to the west to 7 mile marsh road.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
39	33077039-Cut	45.7	429 - Mixed Upland Conifers	Sawtimber Well	88	81-110	Harvest	Shelterwood with Retention	429 - Mixed Upland Conifers	Two-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition: No Markets</b>								
<u>Prescription</u> Shelterwood seed: Retain approximately 30 BA leaving pine seed trees and most or all hemlock and cedar.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventry)											
<u>Treatments:</u>											
<u>Acceptable</u> Pine and mixed conifer species.											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
63	33077063-Cut	44.3	42290 - Natural Mixed Pine	Sawtimber Well	122	81-110	Harvest	Shelterwood with Retention	4319 - Mixed Upland Forest	Two-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Shelterwood/seed: Retain 20-30 BA throughout leaving pine trees for seed source and leaving most or all hemlock and cedar for residual shade.											
<u>Specs:</u> Potential leave of other minor component species.											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventry)											
<u>Treatments:</u>											
<u>Acceptable</u> Pine, mixed conifer and mixed deciduous species.											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											



S 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
73	33077073-Cut	7.7	6122 - Black Spruce	Poletimber Well	85	51-80	Harvest	Clearcut	6122 - Black Spruce	Even-Aged	Proposal

**Habitat Cut: No****Site Condition:**Prescription Clearcut: Leave scattered white pine.Specs:Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable Black spruce and tamarack. Acceptable white pine regeneration.Regen:OtherComment:Proposed Start Date: 10/01/2018

74	33077074-Cut	90.6	6122 - Black Spruce	Poletimber Well	86	51-80	Harvest	Seed Tree with Retention	6122 - Black Spruce	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**Prescription Seed tree: Leave a seed source. Leave along the western edge of stand. May leave a couple of clumps in the remainder of the stand. Look at treating everything to the north this time and remainder the next treatment period.Specs:Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable Black spruce, tamarack, mixed conifer.Regen:OtherComment:Proposed Start Date: 10/01/2018

79	33077079-cut- oi	7.8	4112 - Maple, Beech, Cherry Association	Sawtimber Well	82	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Even-Aged	Draft Field Boundary
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**Habitat Cut: No****Site Condition:**Prescription OPIC - FMD: Select harvest this stand retaining 70-80 BA. In-stand retention: Leave some large diameter cavity trees and standing snags along with favor to retain minor component species.Specs:Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable ANY NORTHERN HARDWOOD SPECIES.Regen:OtherComment:Proposed Start Date: 10/01/2018

82	33077082-Cut	19.9	6121 - Tamarack	Poletimber Medium	84	51-80	Harvest	Clearcut with Retention	6121 - Tamarack	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**Prescription Clearcut with retention: Retain areas of heavier cedar volumes.Specs:Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable Tamarack and black spruce.Regen:OtherComment:Proposed Start Date: 10/01/2018



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
91	33077091-cut-oi	74.1	4110 - Sugar Maple Association	Sawtimber Medium	82	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Even-Aged	Draft Field Boundary

**Habitat Cut: No****Site Condition:**

Prescription OPIC - FMD: Treat this stand with stand 129 of compartment 76. Both stands will be available at the same time.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable ANY NORTHERN HARDWOOD SPECIES.

Regen:OtherComment:

Proposed Start Date: 10/01/2017

112	33077112-Cut	9.6	4319 - Mixed Upland Forest	Sawtimber Well	90	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with reserves: Cut all trees except leave a retention area of hemlock to the east and cedar to the west. Leave the hemlock in the remainder of the stand. Changed the prescription here from a shelterwood to a clearcut with reserves from previous OI.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of maple, deciduous and mixed conifer species.

Regen:OtherComment:

Proposed Start Date: 10/01/2018

115	33077115-Cut	32.3	4112 - Maple, Beech, Cherry Association	Poletimber Well	84	81-110	Harvest	Single Tree Selection	4199 - Other Mixed Upland Deciduous	Uneven-Aged	Draft Field Boundary
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**Habitat Cut: No****Site Condition:**

Prescription Single tree selection. This stand is part of the Government Wolf timber sale.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any mix of northern hardwood species.

Regen:Other

This stand is currently under the Government Wolf contract 009-13-01 unit 3.

Comment:

Proposed Start Date: 10/01/2012

119	33077119-Cut	2.5	4115 - Y.Birch, Hemlock NH	Sawtimber Well	102	111-140	Harvest	Single Tree Selection	4319 - Mixed Upland Forest	Uneven-Aged	Draft Field Boundary
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**Habitat Cut: No****Site Condition:**

Prescription Single tree selection: This stand is currently under the Government Wolf contract 33-009-13-01 unit 3.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any mix of overstory species.

Regen:Other

This stand is currently under the Government Wolf contract 33-009-13-01 unit 3.

Comment:

Proposed Start Date: 10/01/2018



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
121	33077121-Cut	1.5	6120 - Lowland Cedar	Poletimber Well	111	81-110	Harvest	Clearcut	613 - Lowland Mixed Forest	Even-Aged	Proposal

**Habitat Cut: No****Site Condition:**

Prescription Clearcut: The treatment portion of this stand is a small piece of mature balsam fir and some spruce along the edge of the stand.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventry)

Treatments:

Acceptable Mixed upland conifer and deciduous species.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

403	33077403-NF	2.1	31029 - Grass (OI)	Nonstocked			NonForestMgt	Herbaceous/Crop/ Grass Planting	310 - Herbaceous Openland		Proposal
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**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

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

405	33077405-NF	1.5	31029 - Grass (OI)	Nonstocked			NonForestMgt	Herbaceous/Crop/ Grass Planting	310 - Herbaceous Openland		Proposal
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**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

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

407	33077407-NF	0.5	31029 - Grass (OI)	Nonstocked			NonForestMgt	Herbaceous/Crop/ Grass Planting	310 - Herbaceous Openland		Proposal
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**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

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018



S 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
408	33077408-NF	0.6	31029 - Grass (OI)	Nonstocked			NonForestMgt	Herbaceous/Crop/ Grass Planting	310 - Herbaceous Openland		Proposal

**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:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

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**Total Treatment**  
**Acreage Proposed: 451.6**

## Report 4 – Site Conditions

Escanaba Mgt. Unit  
Dan Racine : Examiner

Compartment: 77  
Year of Entry: 2019

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions						
		With Condition	Not Available		4A	5B	5C	1C	3G	3J	
75	75	0	0	Aspen							
505	335	170	0	Cedar	170						
131	81	51	0	Hemlock	51						
5	5	0	0	Herbaceous Openland							
45	45	0	0	Low-Density Trees							
13	13	0	0	Lowland Aspen/Balsam Poplar							
23	14	0	9	Lowland Conifers	0				9		
66	17	38	11	Lowland Deciduous	38						11
61	10	51	0	Lowland Mixed Forest	51						
18	18	0	0	Lowland Shrub							
272	178	94	0	Lowland Spruce/Fir			94				
10	10	0	0	Mixed Upland Deciduous							
120	64	56	0	Natural Mixed Pines		56					
144	144	0	0	Northern Hardwood							
5	5	0	0	Red Pine							
37	37	0	0	Tamarack							
166	64	46	57	Upland Conifers	46			57			
11	11	0	0	Upland Mixed Forest							
23	23	0	0	Water							
1,731	1,148	506	77	Total Forested Acres	356	56	94	57	9	11	
	66%	29%	4%	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	Unavailable	1C: Other dept or div proc/practices	42	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
Monitoring the success of treatments in the hemlock stands in compartment 80 before treating this stand.							

## Report 4 – Site Conditions

Escanaba Mgt. Unit

Dan Racine : Examiner

Compartment: 77

Year of Entry: 2019

2	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	11	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Creek/drainage through the stand with orv trail running through. Black ash and cedar mainly.							
3	<b>Unavailable</b>	<b>1C: Other dept or div proc/practices</b>	15	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wait to see result of hemlock regeneration in compartment 80 and 75.							
4	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	56	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Currently regenerating.							
5	<b>Unavailable</b>	<b>3G: Other Influence zones - See comments</b>	9	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Cedar and hemlock stand with a mix of other minor component species.							
6	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	95	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
76	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							



**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
7 Mile Marsh complex	Habitat Areas or Corridors	Other Habitat Area	Proposed SCA	625
<b>Comments</b>				
Wetland complex habitat area				





**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.

ERA = Ecological Reference Area  
 HCVA = High Conservation Value Area  
 SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	429 - Mixed Upland Conifers	Sawtimber Well	41.8	122	111-140	ORV trail through stand. Some hemlock regeneration in places here. Ridges and valleys. mix of lowland cedar with hemlock/pine ridge to lower hemlock with red maple
2	42350 - Upland Hemlock	Poletimber Well	39.7	127	111-140	mostly hemlock with some white pine and scattered red pine pockets of white pine regen with Some hemlock under the white pine 117 on increment borer on the hemlock.
3	4139 - Aspen, Mixed Deciduous	Poletimber Well	4.9	31	Immature	This stand has a pocket of red maple with aspen and balm in low areas some hem regen some p.birch in canopy.
4	6118 - Lowland Deciduous with Cedar	Poletimber Well	10.6	81	111-140	creek/drainage through stand, very wet. This stand is 65% black ash, cedar, and hemlock with a creek/drainage through the center of the stand and the ORV trail. Some balsam fir in the canopy.
5	42350 - Upland Hemlock	Sawtimber Well	35.7	122	111-140	couple pockets of hemlock regeneration ORV through the stand pocket of lower ground cedar on east side of ORV trail
6	6111 - Lowland Balsam Poplar	Poletimber Well	13.4	40	51-80	This stand is small dbh but rotten center in balm trees.
7	42380 - Non Pine Upland Conifer, Mixed Deciduous	Poletimber Well	24.6	101	51-80	This stand was harvested during the winter of 2000 under contract number 33-011-99-01 (Z's Camp). Lots of Cedar blowdown. at least 86 on increment borer on cedar. Residual 39,30,25, birch. Not two- aged but full regeneration in a few places.
9	429 - Mixed Upland Conifers	Sawtimber Well	21.2	122	51-80	This stand was harvested during December 1999 under contract number 33-011-99-01 (Z's Camp). ORV trail passes through the middle of this stand. residual BA Wii be from 0 to over 100, red maple should stump sprout white pine will take off and hemlock should fill in under the pine. small patch of birch, red maple and aspen can be left for retention at 4-6 dbh.
10	42350 - Upland Hemlock	Poletimber Well	50.6	102	81-110	Hemlock regen along ORV trail.
12	429 - Mixed Upland Conifers	Sawtimber Well	15.0	102	81-110	The understory is mostly White Pine with Balsam Fir and Red Pine. Maintain Hemlock stands until we see results of treatments in compartment 75 and 80.
13	42290 - Natural Mixed Pine	Sawtimber Well	56.0	120	1-50	This stand is opened up through most with significant regeneration of red, white pine and balsam fir. Pockets of hemlock and red pine >than 50 BA. Two aged in many places.
15	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	10.2	128	111-140	66 on age for balsam fir. This is a transition edge between the upland and lowland cedar stand. There is 20-30% balsam fir and some spruce. Mix of species.
16	6120 - Lowland Cedar	Poletimber Well	31.5	112	111-140	Cedar stand with some hardwood along the northern edge.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
17	42290 - Natural Mixed Pine	Sawtimber Well	19.6	122	51-80	Ridge of large dbh red pine with, hemlock white pine couple cedar and black ash. Lots of red pine REGEN along ORV trail
20	6127 - Lowland Pine	Poletimber Poor	13.9	40	1-50	30 on increment borer on white pine lowland site with mix of black spruce and white pine lowland brush with buckthorn and holly to understory also some p.birch in canopy
21	42350 - Upland Hemlock	Poletimber Well	5.5	122	111-140	
24	6120 - Lowland Cedar	Poletimber Well	19.4	123	111-140	There is about a 3 acre patch of hardwood on south central piece. Mix of log sized and pole sized cedar and other species are balsam fir, black ash, black spruce, red pine, white pine, paper birch, tamarack....
25	42210 - Natural Red Pine	Sawtimber Well	5.1	122	51-80	Red Pine Ridge.
26	6121 - Tamarack	Poletimber Well	17.4	84	51-80	There is some Cedar and White Spruce. Poor quality stand.
30	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	50.6	88	81-110	Upland/lowland mix with a mix of 25,3,10,22,20,30, no real pure areas of cedar
33	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	38.4	87	81-110	77 on increment borer on green ash and 77 on increment borer on red maple. Retention in the center portion of stand in lower density area and retaining cedar volumes out.
39	429 - Mixed Upland Conifers	Sawtimber Well	45.7	88	81-110	This stand was treated in 2000, under contract # 12-99-01. This stand was selectively marked and harvested. Pine and hemlock ridge with pockets of a mix of species. Did not get increment borer age on the pine, used previous inventory age.
40	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	9.2	130	81-110	
42	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	12.4	47	81-110	Average dbh of 5-6 inch.
44	6120 - Lowland Cedar	Poletimber Well	17.8	123	81-110	Unable to age on increment borer.
48	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	5.1	37	51-80	Strip cuts with mix of birch, maple, balsam and aspen.
57	4130 - Aspen	Sapling Well	46.8	17	Immature	There are areas of 25-75% canopy closure to the east you can see on the photo. Stand was cut under the Fournier Camp Block sale, this part of the sale was finished in March of 2000. 4/27/07=> The south part of the stand has a lot of cedar residual. Places could be a c4 stand.
58	6120 - Lowland Cedar	Poletimber Well	170.5	132	111-140	There is an island of black spruce, previously stand 59. Mainly cedar, areas of 50-75% canopy northeast of stand 57.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
62	4115 - Y.Birch, Hemlock NH	Sawtimber Well	23.8	82	81-110	More sugar maple to the north and red maple to the south with hemlock in the center. Lots of beech regeneration here. TS Update=> This stand was cut under the 7 mile mix sale (33-001-09-01). There is quite a few beech left here that might need evaluation for beech bark disease. There is some hemlock and red pine along the border between stand 62 and 63. The south end of the stand is higher to F understory.
63	42290 - Natural Mixed Pine	Sawtimber Well	44.3	122	81-110	TS Update=> This stand was cut under the 7 Mile Mix sale (33-001-09-01). Trace amount of Red maple in the overstory. Small pocket of aspen regeneration on the south east portion toward stand 66.
64	42390 - Mixed Non-Pine Upland Conifers	Sawtimber Well	18.1	122	81-110	ORV trail runs through the stand. The stand consists of upland with upland cedar, hemlock, and white pine at 10-16 inches dbh with scattered red maple, paper birch. The lowland is cedar and scattered black spruce.
66	6120 - Lowland Cedar	Poletimber Well	17.9	111	51-80	High amounts of aspen, balm, balsam fir regeneration with a few scattered cedar and hemlock in the blowdown areas. Southwest portion is black ash area. This stand was regeneration checked previously cut under the four inch spec, save cedar, hemlock, cut 3+ stick spruce, leave birch less than 8 inches. 2005 contract # 330030301, Seven Mile Patches sale.
72	6122 - Black Spruce	Sapling Poor	80.0	45	1-50	Small diameter mostly submerchantable area. There is a mix of merchantable and non merchantable areas within the stand delineated area between stand 72 and 74.
73	6122 - Black Spruce	Poletimber Well	7.7	85	51-80	Black spruce with scattered white pine.
74	6122 - Black Spruce	Poletimber Well	184.7	86	51-80	22,10,27, 3,20 Point 2 22-90/7 scattered white pine 10-12 dbh. 3) 22- 100/8 This stand has sphagnum moss for ground cover and Labrador tea. The black spruce varies from 6-10 inches dbh.
75	6120 - Lowland Cedar	Poletimber Well	10.4	82	81-110	Cedar with ash and other minor component species.
77	4130 - Aspen	Sapling Well	23.3	22	Immature	This stand cut in 1995 under contract #11-90-01. There is a small pocket of hardwood within this stand.
79	4112 - Maple, Beech, Cherry Association	Sawtimber Well	7.8	82	81-110	OPIC - FMD: Select harvest this stand.
82	6121 - Tamarack	Poletimber Medium	19.9	84	51-80	Same age as stand 26, small diameter black spruce very poor quality with tag alder.
85	6120 - Lowland Cedar	Poletimber Well	42.9	122	81-110	Did not get an age on a cedar. Some scatted white pine here about 14-16 inches dbh.
86	6120 - Lowland Cedar	Poletimber Well	25.0	122	81-110	In the west center portion of the stand is more of an upland cedar type with yellow birch, transition between the swamp and upland hardwood stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
91	4110 - Sugar Maple Association	Sawtimber Medium	77.9	82	111-140	This stand was cut in 1995. The stand will be put up with compartment 76 to the south during the 2018 year of entry. There is a minor component of balsam fir, hemlock, yellow birch and cedar in the canopy especially along the edge.
93	4191 - Mixed Upland Deciduous with Conifer	Poletimber Poor	9.7	22	Immature	Cherry in the understory, open and raspberries in the understory.
94	6120 - Lowland Cedar	Poletimber Well	30.3	110	81-110	Cut strips completed in 1972. Mature cedar and strips are filling in with a mix of species at 4-8 inches dbh. The overstory is a mix of the cut strip species mix in the overstory percentage and the residual cedar. This is a 2 aged stand with red maple, balsam fir, paper birch, balm, and black ash in the cut strips and mainly mature cedar with a mix of paper birch and balsam fir and maple in the residual stand. Look at cutting this stand along with stand 93, 91 the next time in 2 treatment periods. Cut the whole stand and leave retention patches in the cedar residual.
112	4319 - Mixed Upland Forest	Sawtimber Well	11.1	90	81-110	include hemlock in this Stand. 1) 3-60/14 10-30/12 25-30/10 2) 3-80/12 39 10-40/14 30-10/14 Large diameter
115	4112 - Maple, Beech, Cherry Association	Poletimber Well	32.3	84	81-110	This stand is currently under the Government wolf contract 39,3,1,4, 41,10,30 balsam fir and beech for species.
119	4115 - Y.Birch, Hemlock NH	Sawtimber Well	2.5	102	111-140	OPIC - FMD: Select harvest this stand. Look to harvest this stand with compartment 78 to the north. Select harvest the upland hardwood species leaving some minor component species. Harvest the aspen and spruce/fir with 3 sticks or greater. Leave the cedar and hemlock unless they are necessary to operate. Go around any pockets that are heavier to hemlock and cedar. Acceptable regeneration of M or F. In-stand retention: Leave some large diameter cavity trees and standing dead snags. Follow the prescription.
121	6120 - Lowland Cedar	Poletimber Well	139.4	111	81-110	Did not get age the cedar. The treatment portion of this stand is a small piece of mature balsam fir and some spruce along the edge of the stand.



Stand	Cover Type	Acres	Managed Site	General Comments:
11	3302 - Low Density Conifer Trees	39.4		Recorded 40-60 seedling trees less than 3 feet in 1/110th acre plot with mostly black spruce and some white pine. Some locations were fewer seedling. TS Update=> This stand was harvested under the SpruceZ sale unit 1. Seed trees left throughout including a few white pine. Blowdown of seed trees occurring already.
18	6299 - Lowland Shrub (OI)	1.4	No	OPIC - FMD: Lowland area. No site index taken.
22	3302 - Low Density Conifer Trees	5.1		TS Update=> This stand was cut under the SpruceZ sale unit 2. I had 11 seedlings in 1/110th plot of mostly black spruce with some tamarack and white pine.
29	6229 - Mixed lowland shrub	7.4	No	STAND WAS CUT UNDER PERMIT 02 89 1 RE-EVALUATE AT NEXT ENTRY. Scattered trees I would put at less than 25% cover type.
35	6299 - Lowland Shrub (OI)	6.3	No	OPIC - FMD: No site index taken.
41	6299 - Lowland Shrub (OI)	2.6	No	OPIC - FMD: No site index taken.
114	510- Water (OI)	22.7	No	Flooded area with scattered dead cedar and ash trees.
403	31029 - Grass (OI)	2.1	No	opening filling in with pine and balsam fir
405	31029 - Grass (OI)	1.5	No	OPIC - FMD: grass opening east side filling in with pine on west, landing area for spruce sale
407	31029 - Grass (OI)	0.5	No	OPIC - FMD: grass opening on the west side. Filling in, not much of an opening.
408	31029 - Grass (OI)	0.6	No	grass opening on the west side filling in.