



# Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41034

Entry Year 2019

Acreage: 1,682

County Schoolcraft

Management Area: Seney Manistique Swamp

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**Revision Date:** 2017-07-19

**Stand Examiner:** Adam Petrelius

**Legal Description:**

T44N R16W Sections 31, 32, and 33

**Identified Planning Goals:**

The main goal of this compartment is to conduct multiple resource management for current and future generations.

**Soil and topography:**

The topography in this compartment is mostly flat with slight elevations changes.

One steep ridge exists and splits the compartment in half separating the lowland peat soils located in the west from the upland sandy soils in the east. About 1/3 of the acreage in the compartment is dominated by aspen, 1/3 lowland brush and marsh, and 1/3 is miscellaneous forest cover types. The major soil types found within the compartment, in order of abundance, are Markey Mucky Peat, Rubicon Sand, Rousseau Fine Sand, Dawson-Greenwood-Loxley, and Rousseau-Neconish-Deford. Habitat types within the compartment, in order of abundance, are unclassified wetland, PVE, PArV, and AFPo

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

State land within this compartment was acquired between 1906 and 1952. With the exception of one private parcel along the northern boundary, this compartment is bordered by state land on the north and south. The western compartment boundary borders the Hiawatha National Forest. The eastern boundary is a mixture of timber industry land, state, and private. Within the last 10 years some of this industry land has transferred to private and camps have been built.

**Unique Natural Features:**

Oak forest cover types are rare within the Shingleton Management Unit. This compartment has 134 acres of cover types classified as oak stands. Most stands located in the upland soils also have a decent oak component.

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

In the early 1900's a land development company dug miles of ditches to drain the watershed and promote the land as farmable. Most of the farming efforts failed and the land reverted over to the state. Five ditches are located in the western section of this compartment. They all drain into the Big Ditch which eventually flows into Indian Lake.

**Special Management Designations or Considerations:**

There are no Special Conservation Areas located within the compartment. Much of the western portion of the compartment was harvested sometime between 1975 and 1996 for sharptail management. Currently most of these areas are grown in and dominated with aspen.

**Watershed and Fisheries Considerations:**

The Big Ditch is found within this compartment. Standard BMP's should be implemented to control sediment sources from adjacent uplands. Fine sediments such as silt and sand negatively affect natural reproduction of fish, decrease the diversity of aquatic invertebrate and fish taxa, and result in lower overall fish populations.

**Wildlife Habitat Considerations:**

Lying to the north of M-94, the west half of this compartment is substantially impacted by drains connected to the Big Ditch. The pre-settlement data show that the Fletcher's hill portion of this compartment was dominated by a mixture of hemlock, white pine, beech, white birch, and yellow birch. Oak and aspen were also present. The western portion of the compartment was primarily lowland forest of tamarack and spruce. This compartment has been substantially altered from the

circa 1850 condition. The eastern portion now contains an abundance of oak, aspen, red pine and white pine. The western portion of the compartment has been significantly altered by draining and now consists of lowland brush, large openings and aspen. The wildlife habitat management regime consists of perpetuating the oak and enhancing the hemlock component in the east and maintaining the open character in the western portion of the compartment.

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

Gravel pits are not located in the area and sand and gravel potential appears to be limited within the compartment. There is no known metallic mineral potential in this region. There is no commercial oil and gas production in the UP.

## **Vehicle Access:**

There are 3 main forest roads located within the compartment. Vehicles can access the compartment by turning west off the Southside Road, turning north off M-94 onto the Fletchers Hill Road, or the Mint Farm Road. Roads accessing the compartment are not plowed during winter months and winter access is by snowmobile only. Upon entering the southern boundary of the compartment, the Mint Farm Road is of poor quality and is only passable during the driest portions of the summer.

## **Survey Needs:**

Survey needs exist along the eastern boundary.

## **Recreational Facilities and Opportunities:**

There are no recreational facilities located within the compartment. Opportunities for hunting and other forms of recreational activity exist within the compartment.

## **Fire Protection:**

Response time to fires within this compartment will be slow to moderate. The compartment is located approximately half way between the Shingleton and Thompson offices. Although there are 3 main forest roads entering the compartment, much of the compartment is low ground. Peat soils located in the western portion of the compartment can make firefighting efforts difficult during the dry months of the year. The Big Ditch Fire in 1989, located just south of the compartment, is an example of this. Sandy soils in the eastern portion of the compartment support mixed pine and oak forest types which can be fire threats throughout spring, summer, and fall. The compartment has only 1 surface water source, the Big Ditch. However, nearby water sources are located within a couple miles.

## **Additional Compartment Information:**

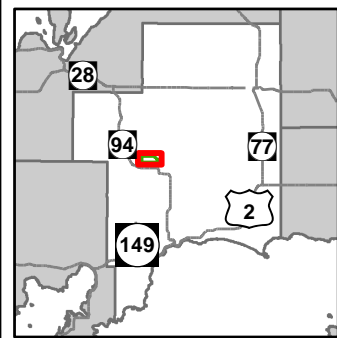
The following reports from the Inventory are attached:

- 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:

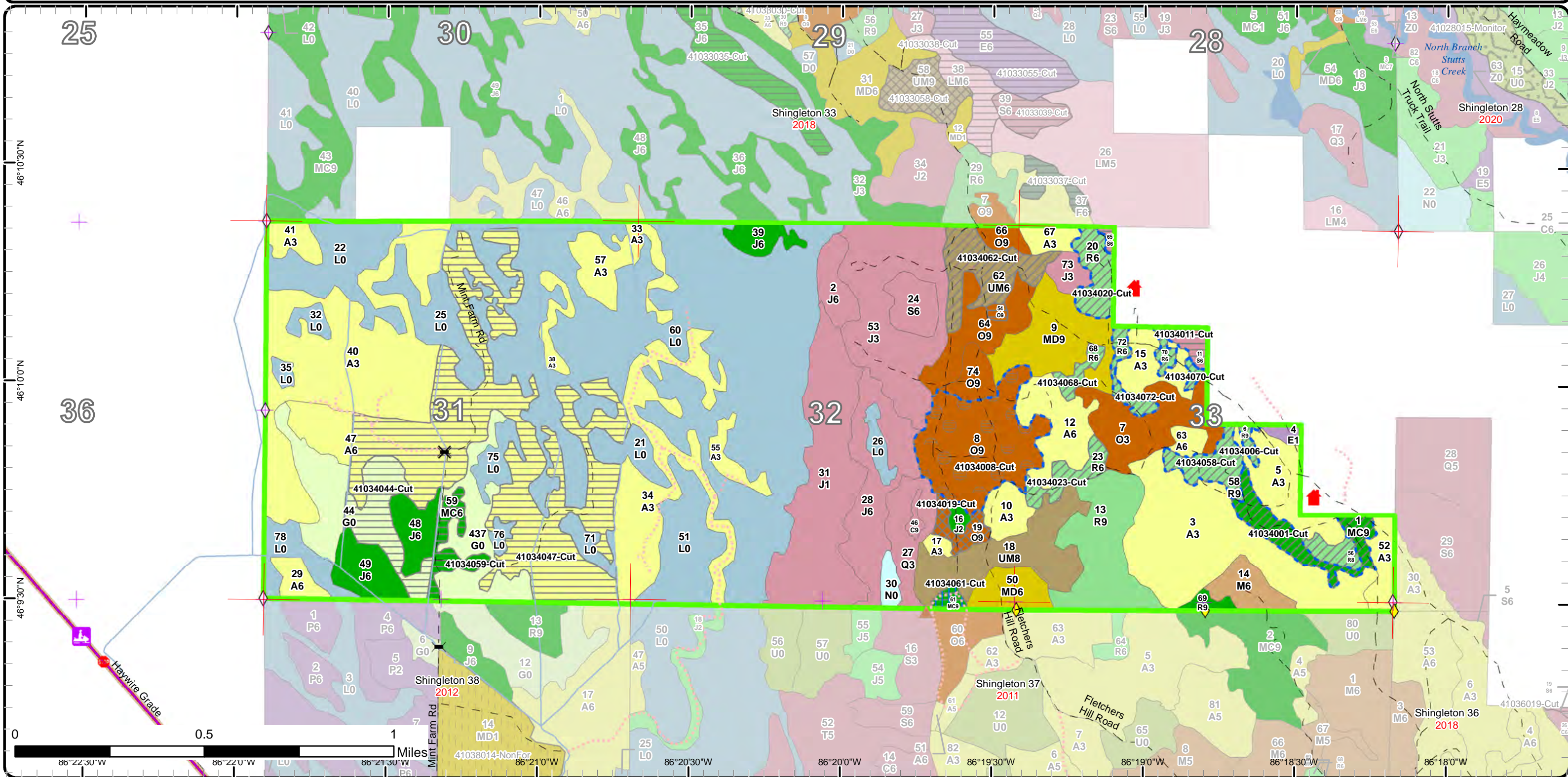
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map



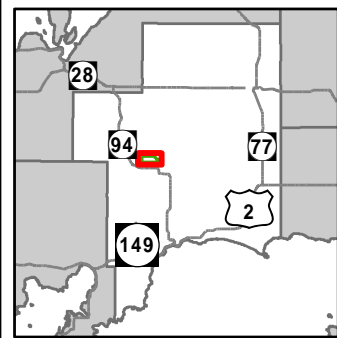
Compartment: 34  
 T44N, R16W, Sec: 31-33  
 County: Schoolcraft  
 Unit: Shingleton  
 Mgmt Area: Seney Manistique Swamp  
 YOE: 2019  
 Acres: 1682.1 GIS Calculated  
 Examiner: Adam Petrelius  
 Map Revised: 8/23/2017  
 Map Phase: Review

- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- - - Counties
- ✕ Gate
- ▲ Berms
- ⚡ Bridge
- 🏠 Cabin
- 🛑 Sign
- 🚙 Snowmobile Trails
- - - Designated ORV Route
- Designated Snowmobile Trails
- Designated Railtrail
- - - Gravel Roads
- - - Poor Dirt Roads
- ⋯ Closed
- Streams
- Lakes and Rivers All
- ▭ Compartment Boundary
- ▨ Treatments with Site Conditions
- ▨ Selection (Group, Single Tree)
- ▨ Clearcut (w/Reserves)
- ▨ Patch/Strip Cut (Femelschlag)
- ▨ Seed Tree (w/Reserves)
- ▨ Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- Lakes

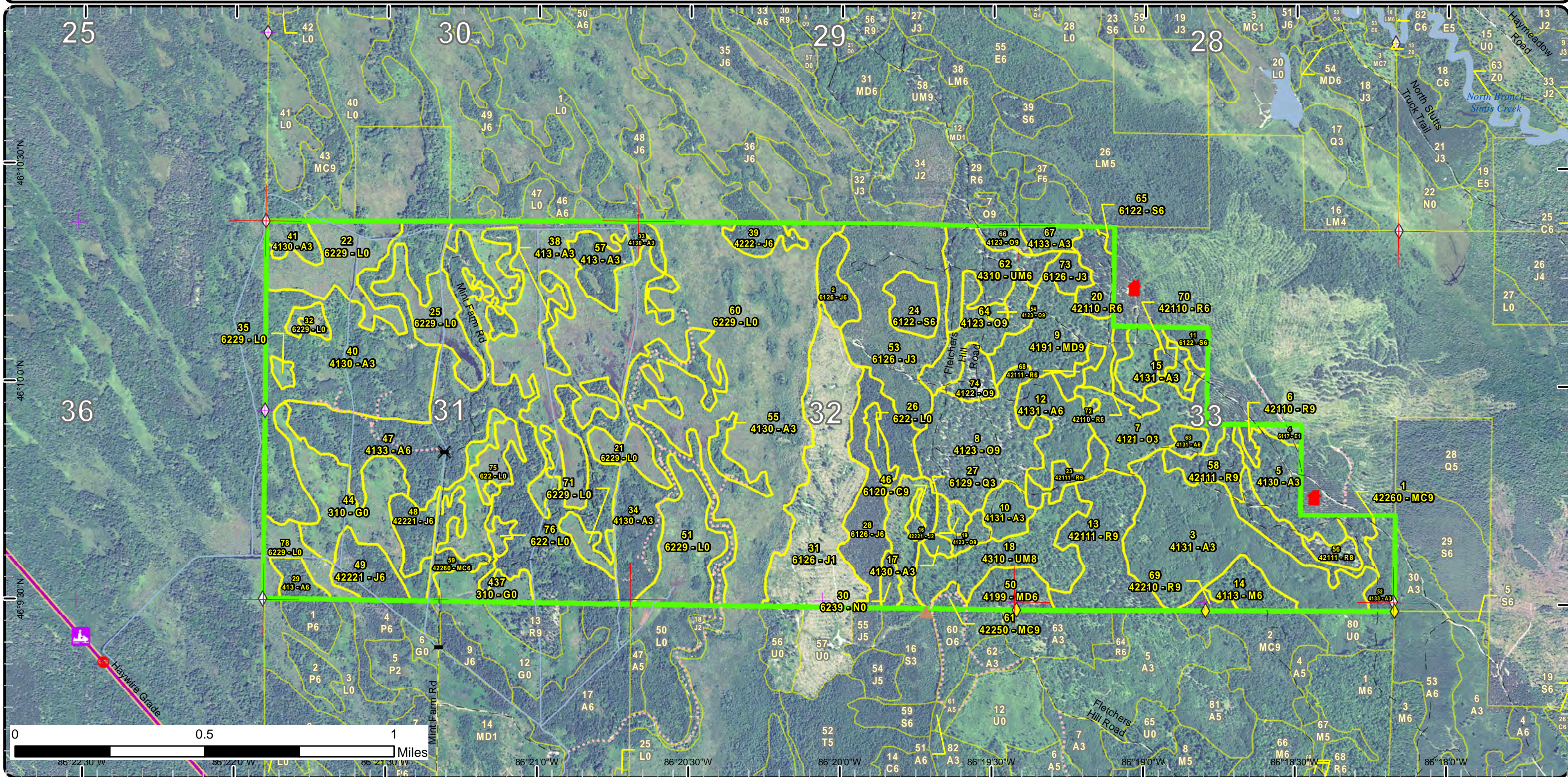


# Stand Boundary Map

Compartment: 34  
 T44N, R16W, Sec: 31-33  
 County: Schoolcraft  
 Unit: Shingleton  
 Mgmt Area: Seney Manistique Swamp  
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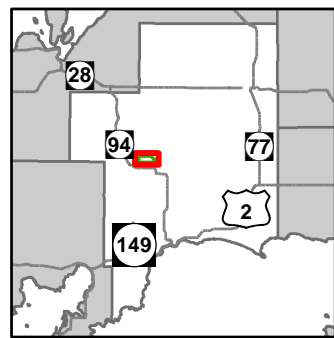


- Miris Corners
  - + Remonumented Section Corners
  - ◆ Survey Grade GPS Corners
  - ◇ Field Grade GPS Corners
  - Counties
  - ✕ Gate
  - ▲ Berms
  - Bridge
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  - Sign
  - Snowmobile Trails
  - Designated ORV Route
  - Designated Snowmobile Trails
  - Designated Railtrail
  - Gravel Roads
  - Poor Dirt Roads
  - Closed
  - Streams
  - Lakes and Rivers All
  - Compartment Boundary
  - Stand Boundaries
- 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
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  - 421 - Planted Pines
  - 422 - Natural Pines
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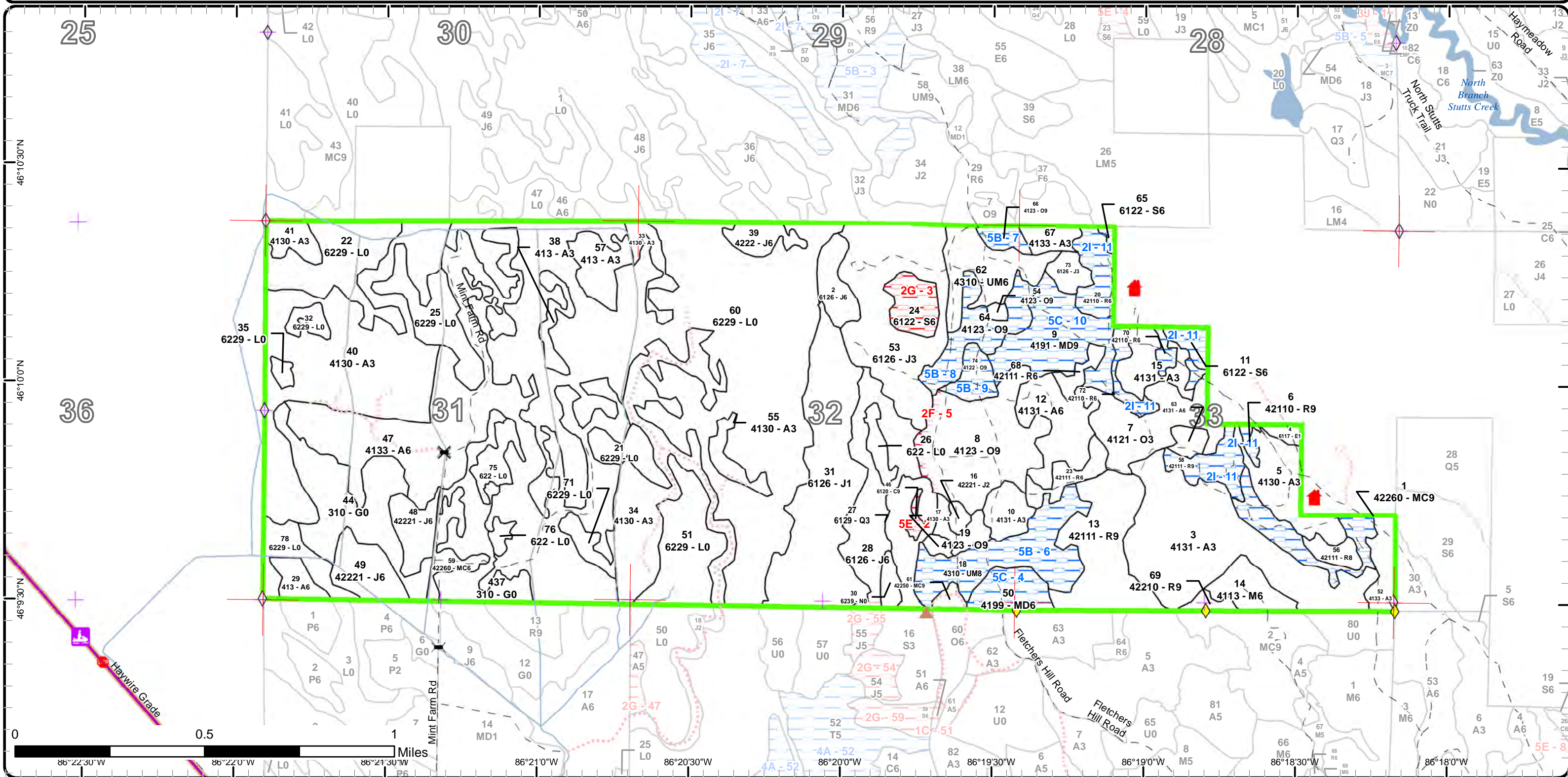


# Special Conservation Areas & Site Conditions Map

Compartment: 34  
 T44N, R16W, Sec: 31-33  
 County: Schoolcraft  
 Unit: Shingleton  
 Mgmt Area: Seney Manistique Swamp  
 YOE: 2019  
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 Examiner: Adam Petrelius  
 Map Revised: 8/23/2017  
 Map Phase: Review



- Miris Corners
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- Counties
- Gates
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- Gravel Roads
- Poor Dirt Roads
- Closed
- Streams
- Lakes and Rivers All
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 2I: Survey needed
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 5E: Long-Term Retention
- Stand Boundaries
- Cold Water Streams



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	20	44	287	29	160	0	0	0	0	0	0	0	0	0	0	0	0	540
Cedar	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
Herbaceous Openland	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71
Jack Pine	0	72	2	102	0	0	47	0	0	0	0	0	0	0	0	0	0	0	223
Lowland Conifers	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Lowland Deciduous	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Shrub	433	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	433
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	6	12	0	0	0	0	0	0	0	0	18
Marsh	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	47	0	0	0	0	0	0	0	0	0	47
Natural Mixed Pines	0	0	0	0	10	0	17	0	3	0	0	0	0	0	0	0	0	0	30
Northern Hardwood	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	12
Oak	0	0	31	0	0	0	0	72	21	0	0	0	0	0	0	0	0	0	123
Red Pine	0	0	0	0	41	2	52	3	0	0	0	0	0	0	0	0	0	0	98
Upland Mixed Forest	0	0	0	0	24	0	0	0	37	0	0	0	0	0	0	0	0	0	61
<b>Total</b>	<b>508</b>	<b>112</b>	<b>77</b>	<b>389</b>	<b>29</b>	<b>235</b>	<b>49</b>	<b>69</b>	<b>75</b>	<b>114</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1682</b>



## Report 2 – Treatment Summary

Shingleton Mgt. Unit  
Year of Entry: 2019

Acres of Harvest

Compartment 34  
Total Compartment Acres: 1,682

Commercial Harvest - 232  
Harvests with Site Condition - 111  
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
Aspen	147	0	0	0	0	0	0	0	0	147
Herbaceous Openland	22	0	0	0	0	0	0	0	0	22
Lowland Spruce/Fir	6	0	0	0	0	0	0	0	0	6
Natural Mixed Pines	10	0	0	3	0	17	0	0	0	30
Oak	1	7	51	0	0	0	0	0	0	59
Red Pine	0	0	0	0	0	54	0	0	0	54
Upland Mixed Forest	0	0	0	0	0	24	0	0	0	24
<b>Total</b>	<b>186</b>	<b>7</b>	<b>51</b>	<b>3</b>	<b>0</b>	<b>96</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>342</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	342	0	0	0	0	0	0	0	0	342
Next Step	0	0	5	0	0	0	215	0	53	274
<b>Total</b>	<b>342</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>215</b>	<b>0</b>	<b>53</b>	<b>616</b>



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
1	41034001-Cut	17.3	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	61	111- 140	Harvest	Low Thinning	429 - Mixed Upland Conifers	Even-Aged	Proposal

**Habitat Cut: No**      **Site Condition: Survey Needed**

Prescription Cut all species except red pine and oak. Thin red pine where needed. Stand is a mixture of planted and natural pine. Row thinning may be needed in areas. Exclude finger in south for retention.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

6	41034006-Cut	2.1	42110 - Planted Red Pine	Sawtimber Well	56	111- 140	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No**      **Site Condition: Survey Needed**

Prescription Stand would benefit from a light thinning. It has been thinned 2 times already.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Survey work would be useful but prepwork could be accomplished using lines established by Weyerhaeuser.  
Comment:

Proposed Start Date: 10/01/2018

8	41034008-Cut	51.3	4123 - Red Oak	Sawtimber Well	79	51-80	Harvest	Strip/Patch/Gap Cut (Femelschlag)	412 - Oak Types	Two-Aged	Proposal
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**Habitat Cut: No**      **Site Condition: Too Steep**

Prescription Create large canopy gaps to encourage oak establishment and recruitment. Gaps must be large enough to allow oak recruitment into overstory.

Specs: Focus gaps in areas that contain mature red pine where possible and harvest single red pine trees also. Existing gaps can also be cleaned up to ensure oak recruitment into overstory.

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable Based on the results of the harvest last year of entry oak regeneration and recruitment is expected however any species onsite are acceptable.  
Regen:

Other Protect oak regeneration with timbersale spec.  
Comment:

Proposed Start Date: 10/01/2018

11	41034011-Cut	5.1	6122 - Black Spruce Well	Poletimber Well	81	81-110	Harvest	Clearcut with Retention	613 - Lowland Mixed Forest	Even-Aged	Proposal
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**Habitat Cut: No**      **Site Condition: Survey Needed**

Prescription Cut all trees except hemlock and oak if present. Treatment should include the hillside since operating is easier from the bottom. Less than 3% retention is acceptable due to small stand size.

Next Step Monitoring, Artificial Regen(1yr); Planting, Initial Plant  
Treatments:

Acceptable Stand will likely regenerate to black spruce and jack pine, but all species are considered acceptable regeneration.  
Regen:

Other Survey work would be useful but prepwork could be accomplished using lines established by Weyerhaeuser.  
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
19	41034019-Cut	6.6	4123 - Red Oak	Sawtimber Well	86	51-80	Harvest	Single Tree Selection	412 - Oak Types	Two-Aged	Proposal

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

Prescription Remove red pine from stand. In addition create a few large canopy gaps to stimulate oak recruitment. Less than 3% retention is acceptable due  
Specs: to small stand size.

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable Stand will likely regenerate to oak, however any mixture of species onsite is acceptable.  
Regen:

Other Protect oak regeneration with timbersale spec.  
Comment:

Proposed Start Date: 10/01/2018

20	41034020-Cut	12.1	42110 - Planted Red Pine	Poletimber Well	60	81-110	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition: Survey Needed**

Prescription Thin to 120. Thinning will be light but some areas of stand are above 120 currently and stand would benefit from a light thinning. Remove red  
Specs: pine that are suppressed underneath oak.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

23	41034023-Cut	8.7	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	48	111- 140	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Row thin. Cut all other species except oak. Less than 3% retention is acceptable due to small stand size. Remove red pine that are suppressed  
Specs: under oak canopy. Avoid cutting oak unless needed.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

44	41034044-Cut	21.8	310 - Herbaceous Openland	Nonstocked		Unspec ified	Harvest	Clearcut	310 - Herbaceous Openland		Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Cut all species except oak and hemlock if present. Harvest trees down to 2 inches. Less than 3% retention is acceptable since objective is non-  
Specs: forest.

Next Step NonForestMgt, Other - Specify  
Treatments:

Acceptable Any species is acceptable regeneration including non-forested. There will be no minimum trees per acre requirement for this stand since open  
Regen: pockets and low stocking will be acceptable per WLD management goals. Stand originated from sharptail management in 1975.

Other Stand contains some man made ditches. Beaver is a featured species in this management area. "The goal for beaver in the eastern Upper  
Comment: Peninsula is to maintain suitable habitat. Management for the species should focus on providing favorable food within 100 feet of streams that  
are not designated high priority trout streams. " Harvest may occur right up to the edge of these man made ditches. Prevent equipment from  
crossing in more than 1 location.

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
47	41034047-Cut	147.1	4133 - Aspen, Mixed Pine	Poletimber Well	42	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Cut all trees down to 2 inches except hemlock and oak. Retention can be left along the edges since the L types surrounding stand will never be harvested. NW corner may need to be excluded due to an active beaver dam. Some red pine should be left. This can be accomplished by retention patches in thicker areas of red pine or if red pine volume is low enough all could be left. Evaluate at time of sale prep.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Any species is acceptable regeneration including non-forested. There will be no minimum trees per acre requirement for this stand since open pockets and low stocking will be acceptable per WLD management goals. Stand originated from sharptail management in 1975.											
<u>Regen:</u>											
<u>Other</u> Stand contains some man made ditches. Beaver is a featured species in this management area. "The goal for beaver in the eastern Upper Peninsula is to maintain suitable habitat. Management for the species should focus on providing favorable food within 100 feet of streams that are not designated high priority trout streams." Harvest may occur right up to the edge of these man made ditches. Prevent equipment from crossing in more than 1 location.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
54	41034054-Cut	1.4	4123 - Red Oak	Sawtimber Well	81	81-110	Harvest	Clearcut with Retention	412 - Oak Types	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Cut all trees down to 2 inches. Leave any aspen to prevent re-sprouting. This would be the only retention. Protect any existing oak regeneration.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Our goal is oak regeneration, but will accept any species onsite.											
<u>Regen:</u>											
<u>Other</u> Small piece that was missed when adjacent stand was harvested. Harvesting trees in this small stand should create a large canopy gap for oak recruitment.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
56	41034056-Cut	5.5	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Medium	45	1-50	Harvest	Systematic Thinning	4221 - Natural Red Pine	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition:</b>								
<u>Prescription</u> Cut all species except red pine and oak. Thin red pine where needed. Stand is a mixture of planted and natural pine.											
<u>Specs:</u>											
<u>Next Step</u> NonForestMgt, Mowing; NonForestMgt, Brush Cutting; NonForestMgt, Herbaceous/Crop/Grass Planting; NonForestMgt, Fruit Tree/Shrub											
<u>Treatments:</u> Planting											
<u>Acceptable</u>											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2018											
58	41034058-Cut	11.9	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	45	111- 140	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
<b>Habitat Cut: No</b>			<b>Site Condition: Survey Needed</b>								
<u>Prescription</u> Row thinning. Avoid cutting oak unless needed for operability. Remove suppressed red pine located underneath oak. Cut all other species except hemlock and oak.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u>											
<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
59	41034059-Cut	9.5	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	42	51-80	Harvest	Clearcut	310 - Herbaceous Openland		Proposal

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

Prescription Cut all species except oak and hemlock if present. Harvest trees down to 2 inches. Less than 3% retention is acceptable since objective is non-forest.  
Specs:

Next Step NonForestMgt, Other - Specify  
Treatments:

Acceptable Any species is acceptable regeneration including non-forested. There will be no minimum trees per acre requirement for this stand since open  
Regen: pockets and low stocking will be acceptable per WLD management goals. Stand originated from sharptail management in 1975.

Other Stand contains some man made ditches. Beaver is a featured species in this management area. "The goal for beaver in the eastern Upper  
Comment: Peninsula is to maintain suitable habitat. Management for the species should focus on providing favorable food within 100 feet of streams that are not designated high priority trout streams. " Harvest may occur right up to the edge of these man made ditches. Prevent equipment from crossing in more than 1 location.

Proposed Start Date: 10/01/2018

61	41034061-Cut	2.7	42250 - Pine, Oak	Sawtimber Well	81	51-80	Harvest	Seed Tree with Retention	412 - Oak Types	Two-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Remove red pine and white pine from overstory and let stand convert to oak. Regeneration should be protected with a timbersale spec. Less  
Specs: than 3% retention is acceptable due to small stand size.

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable Oak will likely be the dominant species however any are acceptable.  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2020

62	41034062-Cut	23.8	4310 - Pine, Oak Mix	Poletimber Well	45	111- 140	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Row thin. Cut all species and mark red pine in rows. Avoid harvesting oak as much as possible and remove suppressed pine located underneath  
Specs: oak. Basal area will be extremely variable due to the large amounts of oak within stand.

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

65	41034065-Cut	1.2	6122 - Black Spruce	Poletimber Well	81	51-80	Harvest	Clearcut	6122 - Black Spruce	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition: Survey Needed**

Prescription Cut all trees except hemlock and oak if present. No other retention needed due to small size.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable any species onsite  
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
68	41034068-Cut	4.4	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	48	111- 140	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription Row thin. Cut all other species except hemlock and oak. Less than 3% retention is acceptable due to small stand size.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

70	41034070-Cut	4.0	42110 - Planted Red Pine	Poletimber Well	48	111- 140	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition: Survey Needed**

Prescription First thinning, row thin. Mark red pine and cut all other species except oak. Oak may be harvested if needed for operability purposes. Less than

Specs: 3% retention is acceptable due to small stand size.

Next Step

Treatments:

Acceptable

Regen:

Other

Survey work would be useful but prepwork could be accomplished using lines established by Weyerhaeuser.

Comment:

Proposed Start Date: 10/01/2018

72	41034072-Cut	5.7	42110 - Planted Red Pine	Poletimber Well	48	111- 140	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No**

**Site Condition: Survey Needed**

Prescription First thinning. Row thin. Less than 3% retention is acceptable due to small stand size. Cut all other species in stand. Oak should only be

Specs: harvested if needed for operability.

Next Step

Treatments:

Acceptable

Regen:

Other

Survey work would be useful but prepwork could be accomplished using lines established by Weyerhaeuser.

Comment:

Proposed Start Date: 10/01/2018

**Total Treatment  
Acreage Proposed: 342.2**

## Report 4 – Site Conditions

Shingleton Mgt. Unit  
Adam Petrelius : Examiner

Compartment: 34  
Year of Entry: 2019

### Availability for Management

Total Acres	Acres Available	Acres Avail		Acres Not Available		Dominant Site Conditions								
		With Condition				2I	5B	5C	2F	2G	5E			
540	540	0		0	Aspen									
2	0	0		2	Cedar									2
71	71	0		0	Herbaceous Openland									
224	223	0		1	Jack Pine							1		
17	17	0		0	Lowland Conifers									
3	3	0		0	Lowland Deciduous									
433	433	0		0	Lowland Shrub									
18	0	6		12	Lowland Spruce/Fir	6							12	
4	4	0		0	Marsh									
47	0	47		0	Mixed Upland Deciduous			47						
30	12	17		0	Natural Mixed Pines	17								
12	12	0		0	Northern Hardwood									
124	87	34		3	Oak		34			3				
98	62	36		0	Red Pine	36								
61	24	37		0	Upland Mixed Forest		37							
1,682	1,487	177		18	Total Forested Acres	59	71	47	3	13			2	
	88%	11%		1%	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
2	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Pomeroy tried harvesting this stand 16 years ago but could not get it to freeze and turned it back into state.							

Report 4 – Site Conditions

Shingleton Mgt. Unit  
Adam Petrelius : Examiner

Compartment: 34  
Year of Entry: 2019

4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	2F: Too steep	3	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments: Steep ridge containing mostly oak. Ridge should be saved as long term retention since it is questionable if it is operable.							
6	Available	5B: Maintain for regeneration purposes	37	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Available	5B: Maintain for regeneration purposes	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Available	5B: Maintain for regeneration purposes	21	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Available	5B: Maintain for regeneration purposes	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

**Report 4 – Site Conditions**

**Shingleton Mgt. Unit**  
**Adam Petrelius : Examiner**

**Compartment: 34**  
**Year of Entry: 2019**

10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	34	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
11	Available	2I: Survey needed	60	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

Mgt. Unit

Compartment: #Type!

Year of Entry:



## 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
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Comments

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Mgt. Unit

Compartment:

Year of Entry



### 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
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	17.3	61	111-140	
2	6126 - Lowland Jack Pine	Poletimber Well	10.9	51	51-80	Low ground has spruce and tamarack present. Stand was cut in 1994, 5th edition sale. sale volume had over 80% jack pine volume. This portion of the larger stand was separated in 2017. It contains scattered mature jack pine and also younger trees. It seems like the logger in 1994 ran out of winter to finish the job or determined this area was too wet.
3	4131 - Aspen, Oak	Sapling Well	77.9	26	1-50	
4	6117 - Lowland Deciduous, Mixed Coniferous	Sapling Poor	2.6	5	1-50	[4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, unit 11, actual acres = 4. Residual Basal Area, Red Pine 2 sq ft.  (7/12/2012 AP) Sale is closed. Stand has been cut. On list to plant. (10/31/2013 AP) FTP 1412 was cancelled at review. Less than 1 acre of high ground exists in this stand and it has regenerated to oak and aspen. Planting or scarification is impractical. Check regeneration next year of entry.  Stand is fully regenerated to above listed canopy species.
5	4130 - Aspen	Sapling Well	22.2	17	1-50	
6	42110 - Planted Red Pine	Sawtimber Well	2.1	56	111-140	[4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, Unit 10, actual acres = 3. Residual Basal Area, Red Pine 100 sq ft.  (7/12/2012 AP) Sale is closed. Stand has been cut.
7	4121 - Oak, Aspen	Sapling Well	30.5	17	1-50	
8	4123 - Red Oak	Sawtimber Well	51.3	79	51-80	[4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, unit 3, actual acres =45. Residual Basal Area, Red Pine 8 sq ft., red oak 52 sq ft  (7/12/2012 AP) Sale is closed. Stand has been cut.  Stand has regenerated well in gaps and oak has recruited above deer height where located in the gaps.
9	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	33.7	81	51-80	
10	4131 - Aspen, Oak	Sapling Well	9.4	17	1-50	
11	6122 - Black Spruce	Poletimber Well	5.1	81	81-110	
12	4131 - Aspen, Oak	Poletimber Well	22.4	35	81-110	Temporary camp has been set up within this stand during hunting seasons multiple years.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
13	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	40.1	67	81-110	[4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, unit 7, actual acres = 41. Residual Basal Area, Red Pine 57 sq ft., red oak 14 sq ft, white pine 4 sq ft.  (7/12/2012 AP) Sale is closed. Stand has been cut.
14	4113 - R.Maple, Conifer	Poletimber Well	12.1	97	81-110	4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, unit 12, actual acres = 10. Residual Basal Area, wed Pine 6 sq ft., white birch 4 sq ft, hard maple 2 sq ft, beech 7 sq ft, red maple 47 sq ft, hemlock 7 sq ft.  (7/12/2012 AP) Sale is closed. Stand has been cut.
15	4131 - Aspen, Oak	Sapling Well	13.8	6	1-50	[4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, unit 9, actual acres = 11. Residual Basal Area, Red Pine 2 sq ft., red oak 9 sq ft (7/12/2012 AP) Sale is closed. Stand has been cut. Regeneration is well established and includes a good amount of oak.
16	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Medium	2.4	17	1-50	frost pocket
17	4130 - Aspen	Sapling Well	2.3	17	1-50	
18	4310 - Pine, Oak Mix	Sawtimber Medium	36.8	81	141-170	[4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, unit 5, actual acres = 33. Residual Basal Area, Red Pine 20 sq ft., oak 16 sq ft, white pine 6 sq ft (3/22/11 AP) FTP W41-1411 has been cancelled. (7/12/2012 AP) Sale is closed. Stand has been cut. Maintain canopy to shade out as much aspen as possible. Goal is to increase the oak component.
19	4123 - Red Oak	Sawtimber Well	6.6	86	51-80	[4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, unit 4, actual acres = 7. Residual Basal Area, Red Pine 7 sq ft., red oak 41 sq ft  (7/12/2012 AP) Sale is closed. Stand has been cut.
20	42110 - Planted Red Pine	Poletimber Well	12.1	60	81-110	[4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, unit 8, actual acres = 11. Residual Basal Area, Red Pine 71 sq ft., red oak + 3 sq ft, jack pine 3 sq ft, aspen 6 sq ft  (7/12/2012 AP) Sale is closed. Stand has been cut.
23	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	8.7	48	111-140	
24	6122 - Black Spruce	Poletimber Well	11.7	91	1-50	Low pocket of spruce that was left during previous harvest. Stand was cut in 1994, 5th edition sale. Logger could not harvest it due to wetness. Canopy is being replaced by subcanopy



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
27	6129 - Mixed Coniferous Lowland Forest	Sapling Well	17.0	5	1-50	<p>4/8/09 BB Stand is now on proposal 9-09 Fletchers Hill Jack Pine; actual acres = 21. Residual Basal Area = Red Pine 7 sq ft, white pine = 10 sq ft, hemlock 1 sq ft, cedar 12 sq ft</p> <p>[9/24/2014] Stand was cut as part of Fletcher Hill Jack Pine. Sale was closed on 8/23/2012. Cutting was completed in Feb/Mar 2012.</p> <p>Stand is fully regenerated to mixed swamp conifers.</p>
28	6126 - Lowland Jack Pine	Poletimber Well	35.8	51	51-80	Size of trees within stand varies due to site quality. Some areas are very wet and trees are stunted. Overall the health of the stand is still good.
29	413 - Aspen	Poletimber Well	6.8	36	51-80	Stand should be managed with adjacent compartment since the ditch prevents access.
31	6126 - Lowland Jack Pine	Sapling Poor	72.4	5	1-50	<p>2007 comments: Lowground jack pine stand with a few ridges of red pine present. Quality of jack pine increases towards the western portions of the stand. Jack pine located on low ground is smaller due to site conditions, but mortality was noticed. Site is too wet to scarify, but adjacent stands have regenerated well to a mix of jack pine, spruce, and tamarack. Acceptable alternative management objectives include any species mixture currently present onsite.</p> <p>Approximately 38 acres of compartment 37, stands 56 and 57, should be included.</p> <p>Harvesting was attempted on portions of this stand during previous years. It was never cut, and was factor limited as too wet.</p> <p>4/8/09 BB Stand is now on proposal 9-09 Fletchers Hill Jack Pine; actual acres = 21. Residual Basal Area = Red Pine 6 sq ft, white pine = 1 sq ft</p> <p>[9/24/2014] Stand was cut as part of Fletcher Hill Jack Pine. Sale was closed on 8/23/2012. Cutting was completed in Feb/Mar 2012. Stand has been added to the regeneration timeclock and will be checked in 2017.</p> <p>2017 comments: Stand has excellent regeneration of lowland jack pine with some black spruce and tamarack.</p>
33	4130 - Aspen	Sapling Well	7.7	21	1-50	Stand was harvested in 1996, swimming rabbit sale. Specs were to harvest all trees down to 4 inches. Volume from sale was a mixture of red pine, jack pine, and aspen.
34	4130 - Aspen	Sapling Well	57.8	21	1-50	Stand was harvested in 1996, swimming rabbit sale. Specs were to harvest all trees down to 4 inches. Volume from sale was a mixture of red pine, jack pine, and aspen.
38	413 - Aspen	Sapling Well	6.7	23	1-50	OPIC - FMD: Stand harvested in 1994 for sharptail management. It is currently aspen with pockets of grass, lowland brush, and jack pine. Harvested with the Last Ditch Sale.
39	4222 - Natural Jack Pine	Poletimber Well	8.2	27	1-50	Stand is believed to have been harvested with the Crowes Nest sale in 1998 however the sale map and records do not match.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	4130 - Aspen	Sapling Well	104.7	23	1-50	
41	4130 - Aspen	Sapling Well	7.8	23	1-50	
46	6120 - Lowland Cedar	Sawtimber Well	1.9	91	111-140	Stand is retention pocket for stand 27.
47	4133 - Aspen, Mixed Pine	Poletimber Well	159.7	42	51-80	OPIC - FMD: Stand was harvested in 1975 for sharptail management. It is mostly aspen with some jack pine present. A few red pine are scattered throughout. There are also pockets of grass and lowland brush. Numerous FTP's have been completed in this stand during the late 1970's relating to sharptail management. These include herbicide applications, opening maintenance, aspen TSI, and various plantings of rye, vetch oats, and highbush cranberry.
48	42221 - Natural Jack Pine, Mixed Deciduous	Poletimber Well	11.8	25	1-50	Stand was harvested in 1992, ABC pine sale. Specs were to harvest all trees down to 4 inches. Volume from sale was a mixture of red pine, jack pine, and aspen.
49	42221 - Natural Jack Pine, Mixed Deciduous	Poletimber Well	15.3	25	1-50	
50	4199 - Other Mixed Upland Deciduous	Poletimber Well	13.0	81	51-80	OPIC - FMD: A lot of residual oak remain. Stand is mostly A3, but has some jack pine, white pine, and oak regeneration also.
52	4133 - Aspen, Mixed Pine	Sapling Well	10.1	16	1-50	OPIC - FMD: 41-028-00-01; Sale was cut spring 2001, 10 actual acres, A few red pine and birch seed trees were left. Awaiting TSI [12-2-02 BB] Stand was TSI'd in summer 2002, real acres are 10  south portion of stand is heavy to red pine
53	6126 - Lowland Jack Pine	Sapling Well	61.2	23	1-50	Stand was cut in 1994, 5th edition sale. sale volume had over 80% jack pine volume.
54	4123 - Red Oak	Sawtimber Well	1.4	81	81-110	
55	4130 - Aspen	Sapling Well	6.8	21	1-50	Stand was harvested in 1996, swimming rabbit sale. Specs were to harvest all trees down to 4 inches. Volume from sale was a mixture of red pine, jack pine, and aspen.
56	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Medium	5.5	45	1-50	alot of open areas. mixture of failed planting and natural.
57	413 - Aspen	Sapling Well	13.3	23	1-50	Stand harvested in 1994 for sharptail management. It is currently aspen with pockets of grass, lowland brush, and jack pine. Harvested with the Last Ditch Sale.
58	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	11.9	45	111-140	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
59	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	9.5	42	51-80	Stand was harvested in 1975 for sharptail management. This was part of a once larger opening.
61	42250 - Pine, Oak	Sawtimber Well	2.7	81	51-80	[4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, unit 6, actual acres = 3. Residual Basal Area, Red Pine 38 sq ft., red oak 30 sq ft, white pine 3 sq ft  (7/12/2012 AP) Sale is closed. Stand has been cut.  was decided at review to hold this stand and harvest in 2021 with stand to the south.
62	4310 - Pine, Oak Mix	Poletimber Well	23.8	45	111-140	
63	4131 - Aspen, Oak	Poletimber Well	4.1	26	1-50	
64	4123 - Red Oak	Sawtimber Well	21.4	79	81-110	Insects/Disease: Oak was found with stand that was heavily infested with Lecanium scale. Comments from Bob Heyd: High scale populations severely reduce tree vigor and cause branch or crown dieback. Pesticides can be used to protect shade trees, but no forest options. Generally, parasites and predators build up in a forest setting, and effectly reduce scale populaitons.  [4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, unit 1, actual acres = 19. Residual Basal Area, Red Pine 2 sq ft., red oak 50 sq ft, white birch 1 sq ft  (7/12/2012 AP) Sale is closed. Stand has been cut.  Oak regeneration is excellent and some is starting to recruit into overstory where gaps are present.
65	6122 - Black Spruce	Poletimber Well	1.2	81	51-80	
66	4123 - Red Oak	Sawtimber Well	4.7	81	81-110	[3/11/08 BB] Stand is now on Proposal 6-08, Fletcher's Hill Mix. Actual Stand acres = 4. Residual Basal Area; oak 88 sq ft.  [8/27/12 TI] Sale has been closed. TCR date of 4/16/2012. Stand has been added to the regeneration timeclock.  Canopy is being left to help shade out aspen that regenerated following previous harvest.
67	4133 - Aspen, Mixed Pine	Sapling Well	6.1	6	1-50	
68	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	4.4	48	111-140	
69	42210 - Natural Red Pine	Sawtimber Well	3.1	77	141-170	OPIC - FMD: Small stand. The majority of this stand lies in compartment 37 and this stand should be managed with compartment 37. A note was placed in adjacent stand.
70	42110 - Planted Red Pine	Poletimber Well	4.0	48	111-140	

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Shingleton Mgt. Unit

Report 7 – Forested Stands

Compartment: 34  
Year of Entry: 2019



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
72	42110 - Planted Red Pine	Poletimber Well	5.7	48	111-140	
73	6126 - Lowland Jack Pine	Sapling Well	5.9	26	1-50	
74	4122 - Oak, Pine	Sawtimber Well	8.2	81	1-50	[4-27-09 BB] Sale is now on proposal 41-001-09 Fletchers Hill Mix, unit 2, actual acres =10. Residual Basal Area, Red Pine 15 sq ft. red oak 13 sq ft (10/31/2013 AP) FTP 1412 was cancelled at review. There were no open pockets develop following harvest and planting is impractical.



Stand	Cover Type	Acres	Managed Site	General Comments:
21	6229 - Mixed lowland shrub	10.3	No	
22	6229 - Mixed lowland shrub	33.0	No	
25	6229 - Mixed lowland shrub	21.9	No	
26	622 - Lowland Shrub	5.3	No	
30	6239 - Mixed Emergent Wetland	4.0	No	
32	6229 - Mixed lowland shrub	4.4	No	
35	6229 - Mixed lowland shrub	2.3	No	OPIC - FMD: Stand is mostly lowland brush with some scattered pockets of aspen and grass.
44	310 - Herbaceous Openland	42.8	Yes	Stand was historically managed as opening for sharptail.
51	6229 - Mixed lowland shrub	30.7	No	
60	6229 - Mixed lowland shrub	293.9	No	
71	6229 - Mixed lowland shrub	6.5	No	
75	622 - Lowland Shrub	8.6	No	
76	622 - Lowland Shrub	2.6	No	
78	6229 - Mixed lowland shrub	13.7	No	
437	310 - Herbaceous Openland	28.1	Yes	Stand was cut in 1975 for sharptail management. It consists of mostly grass with pockets of jack pine, aspen, red pine, and lowland brush. FTP's from the late 1970's were completed within this stand and included opening maintenance with herbicide, mechanical opening maintenance, and planting of rye and vetch oats.