



Compartment Review Presentation

Escanaba Forest Management Unit

Compartment 33016

Entry Year 2019

Acreage: 966

County Menominee

Management Area: Nathan-Banat Moraines

Revision Date: 2017-06-30

Stand Examiner: Dan Beaudou

Legal Description:

T36N-R27W, Sections 19, 20, 21 and 30

Identified Planning Goals:

Several stands will be treated due to forest health concerns with spruce budworm (SBW) and emerald ash borer (EAB). SBW is present in the stands and causing spruce/fir mortality. A couple mature ash stands will be treated before the onset of EAB. One ash stand will go untreated this cycle due to recent clearcuts adjacent to the stand. Past harvested stands are regenerating well and look healthy.

Soil and topography:

Mostly level, some rolling, a few hills. Swamp: Greenwood-Dawson Assoc.; Lupton-Tawas Assoc. Tawas-Lunds-Kiva variant complex. Upland: Onaway fine sandy loams; Kiva variant fine sandy loam; Onaway-Kiva variant.

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

The majority of the compartment borders private lands that are surrounded primarily by an agricultural and forested landscape.

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, wolf, and wood turtle. In the form of vegetative unique and natural features, this area has the potential for calypso, ram's head lady's-slipper, marsh grass-of-parnassus, Assiniboia sedge and climbing fumitory.

Archeological, Historical, and Cultural Features:

Historical featured an old logging camp but gps coordinates show the location being on private property.

Special Management Designations or Considerations:

None known to exist.

Watershed and Fisheries Considerations:

Ross Creek flows through a small portion of the compartment in the east block. This compartment contains Ross Creek which serves as a tributary to the Little Cedar River in the Menominee River watershed. Ross Creek is designated a Type 1 trout stream less than 50' width. A 300' buffer is recommended in riparian areas susceptible to Aspen regeneration. For all other riparian areas, Best Management Practices should be followed to maintain canopy cover and prevent erosion into waterbodies.

Wildlife Habitat Considerations:

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.

Recommendations: This compartment is divided into 3 relatively small blocks by private land holdings. Forest cover is largely aspen and northern hardwood in the uplands and lowlands of cedar, spruce, and tamarack.

Several stands of mixed conifer and deciduous tree species are proposed for harvest benefiting wildlife that utilize these conifer types. Some of the treatments are related to forest health concerns such as Spruce Budworm, and Emerald Ash Borer. Regeneration is expected to same species that are present in the stands.

Mineral Resource and Development Concerns and/or Restrictions

There is metallic mineral potential in this area, and there has been some past mineral exploration to the northwest and

mineral exploration related to the proposed Back Forty mine is occurring just over three miles to the southwest. There is no history of leasing within the compartment. A sand/gravel pit is located less than two miles to the south and 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:

Most of this compartment is accessible only by passing through private lands. Cheese Factory Road bisects the compartment and provides access to about 200 acres of the compartment. The state land in section 21 is accessible via foot from compartment 15 to the north.

Survey Needs:

Four survey corners would be needed to treat the south west stands.

Recreational Facilities and Opportunities:

No recreational facilities in this compartment but it is used for hunting, trapping and dispersed camping.

Fire Protection:

No significant control problems are 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:

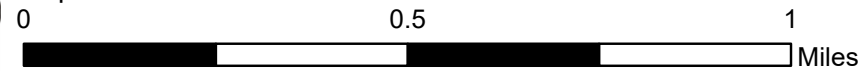
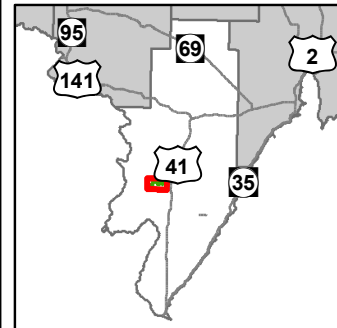
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

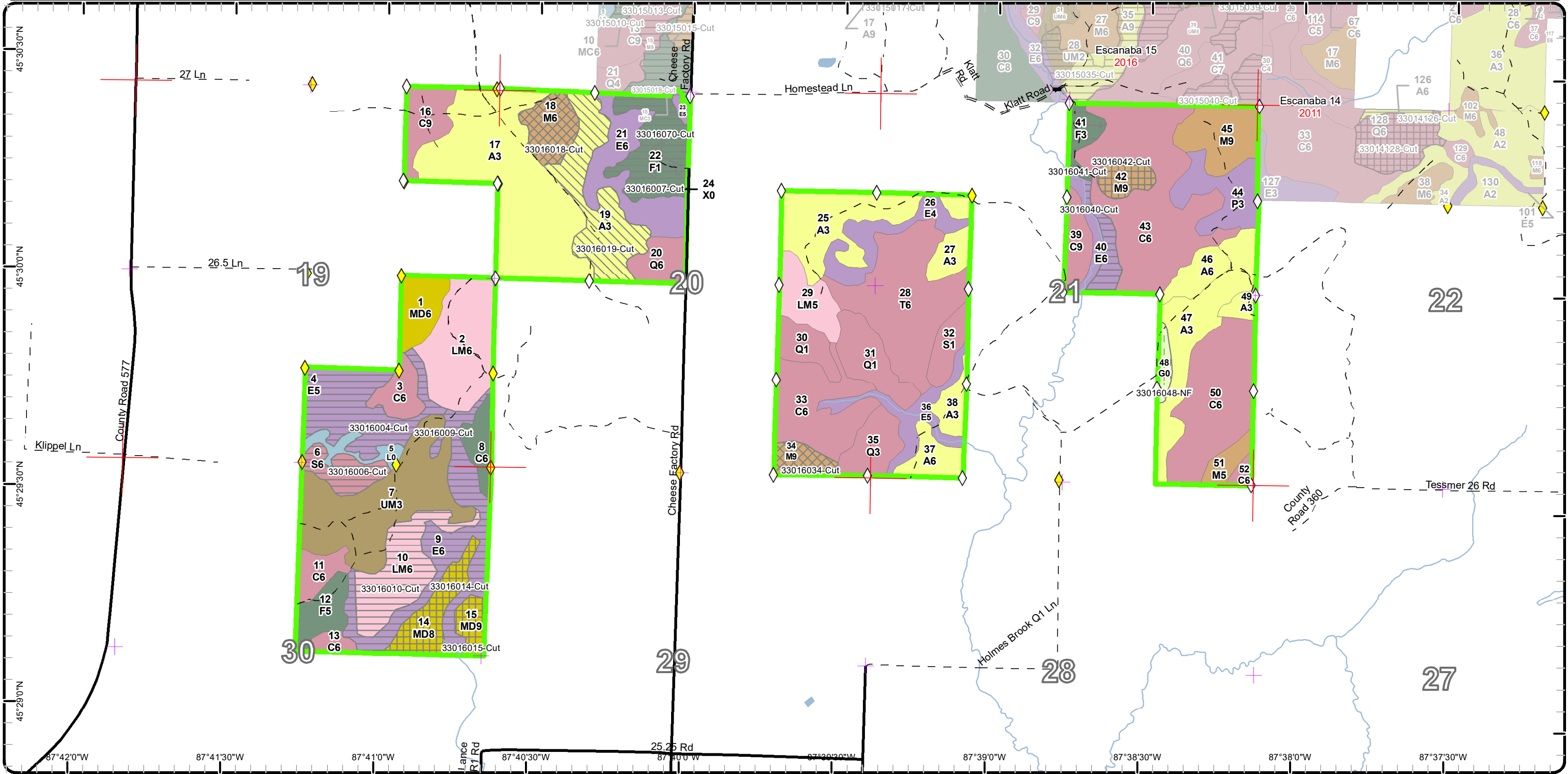
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

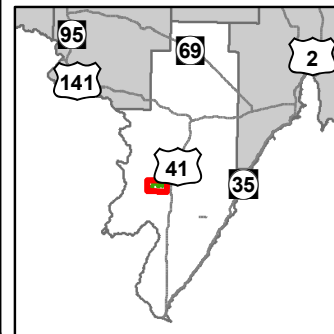
Compartment: 16
 T36N R27W Sec. 19, 20,21,30
 County: Menominee
 Unit: Escanaba
 Mgmt Area: Nathan-Banat
 Moraines
 YOE: 2019
 Acres: 966 GIS Calculated
 Examiner: Dan Beaudou
 Map Revised: 7/5/2017
 Map Phase: Web-Post



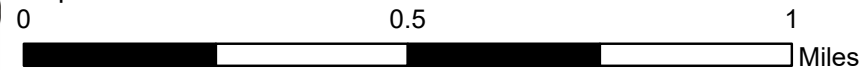
- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- - - Counties
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Streams
- Lakes and Rivers All
- Compartment Boundary
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Opening Maintenance
- Harvest, Overstory Removal
- Other Harvest - See Comments
- Seed Tree (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 622 - Lowland Shrub
- Lakes



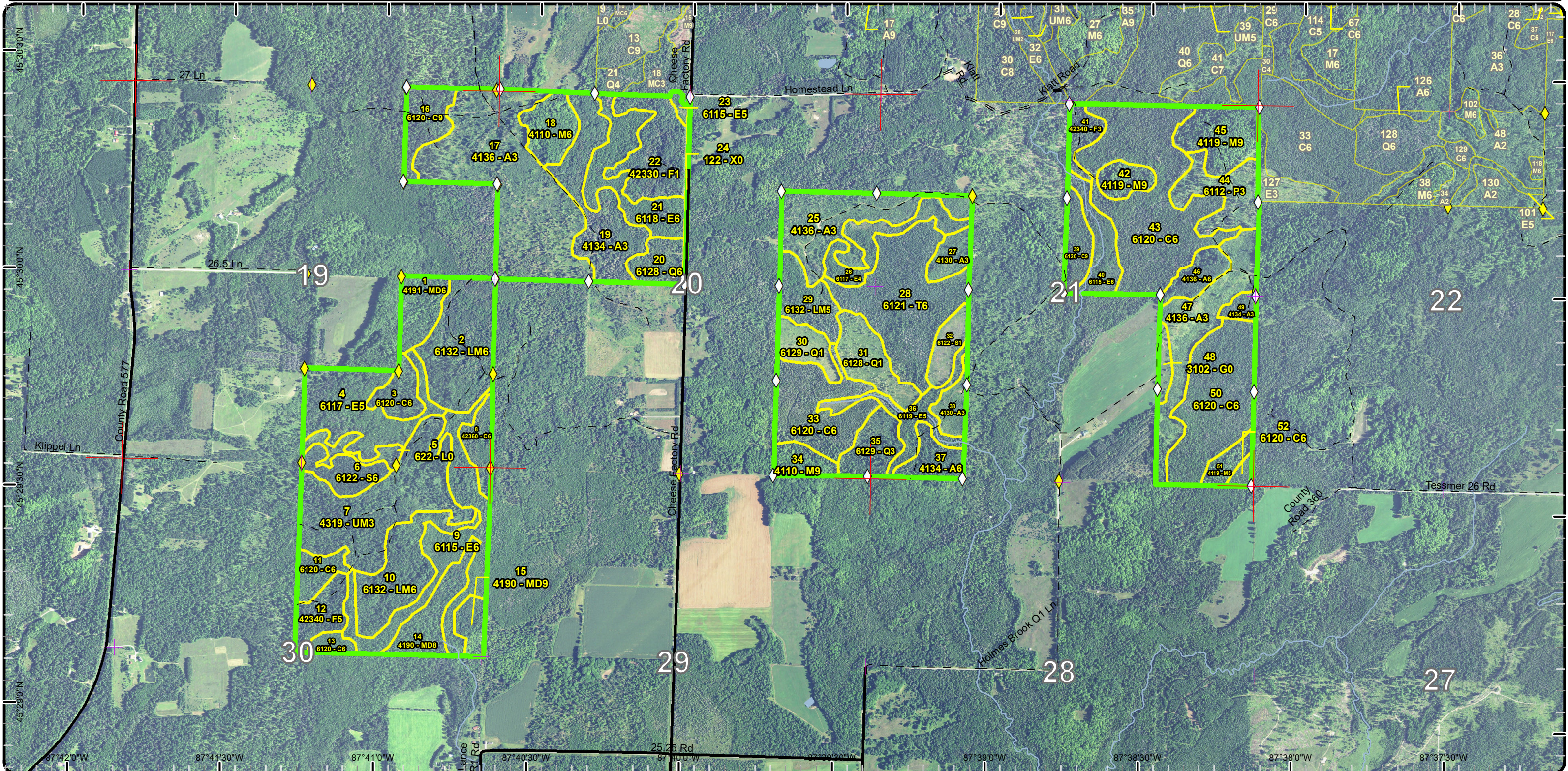
Stand Boundary Map



Compartment: 16
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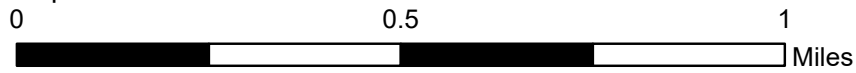
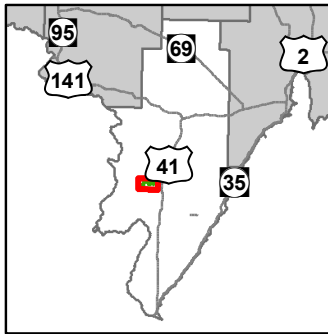


- Miris Corners
 - + Remonumented Section Corners
 - ◆ Survey Grade GPS Corners
 - ◇ Field Grade GPS Corners
 - Counties
 - Bridge
 - Paved Roads
 - Gravel Roads
 - Poor Dirt Roads
 - Streams
 - Lakes and Rivers All
 - Compartment Boundary
 - Stand Boundaries
- | |
|---------------------------------|
| 413 - Aspen Types |
| 419 - Mixed Upland Deciduous |
| 423 - Other Upland Conifers |
| 430 - Upland Mixed Forest |
| 611 - Lowland Deciduous Forest |
| 612 - Lowland Coniferous Forest |
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| 122 - Roads/Parking Lot |
| 310 - Herbaceous Openland |
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- 411 - Northern Hardwood

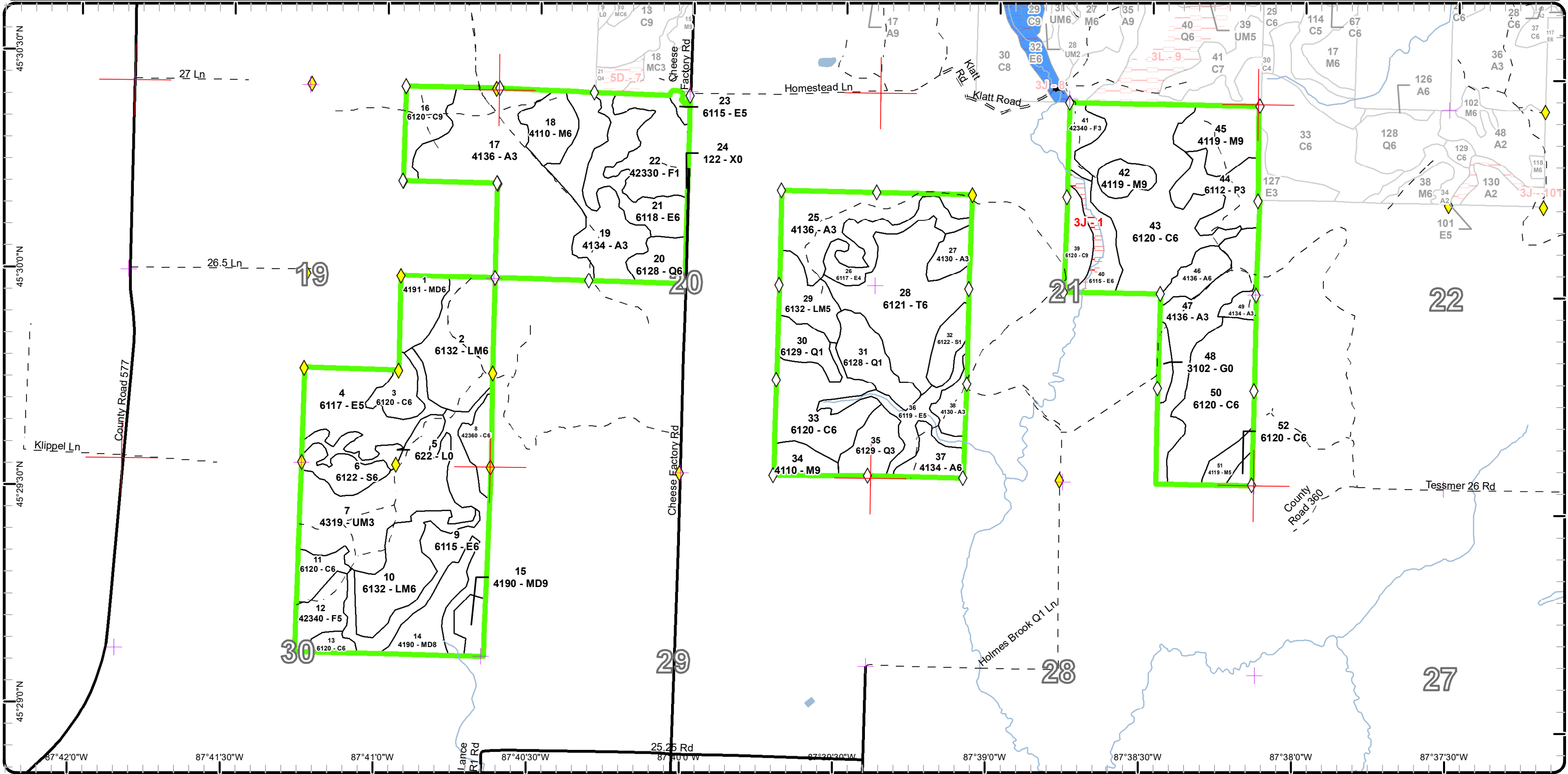


Special Conservation Areas & Site Conditions Map

Compartment: 16
 T36N R27W Sec. 19, 20, 21, 30
 County: Menominee
 Unit: Escanaba
 Mgmt Area: Nathan-Banat
 Moraines
 YOE: 2019
 Acres: 966 GIS Calculated
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 Map Revised: 7/5/2017
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- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Counties
- Bridge
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Streams
- Lakes and Rivers All
- Compartment Boundary
- Unavailable
- 3J: Water quality / BMPs (stream, river, or lake)
- Stand Boundaries
- Cold Water Streams
- Riparian 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 | 159 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 214 |
| Cedar | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 40 | 49 | 78 | 0 | 0 | 0 | 0 | 0 | 197 |
| Herbaceous Openland | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Lowland Aspen/Balsam Poplar | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| Lowland Conifers | 0 | 26 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 49 |
| Lowland Deciduous | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 16 | 98 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 142 |
| Lowland Mixed Forest | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 76 |
| Lowland Shrub | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Lowland Spruce/Fir | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| Mixed Upland Deciduous | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| Northern Hardwood | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 27 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 54 |
| Tamarack | 0 | 0 | 0 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51 |
| Upland Mixed Forest | 0 | 0 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 |
| Upland Spruce/Fir | 0 | 25 | 11 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| Urban | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 12 | 238 | 77 | 29 | 0 | 51 | 15 | 0 | 60 | 198 | 81 | 49 | 78 | 0 | 0 | 0 | 0 | 78 | 965 |



Report 2 – Treatment Summary

Escanaba Mgt. Unit

Year of Entry: 2019

Acres of Harvest

Compartment 16

Total Compartment Acres: 966

Commercial Harvest - 234
 Harvests with Site Condition - 0
 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 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 57 |
| Lowland Deciduous | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80 |
| Lowland Mixed Forest | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| Lowland Spruce/Fir | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| Mixed Upland Deciduous | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 22 |
| Northern Hardwood | 0 | 21 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 28 |
| Upland Spruce/Fir | 2 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 9 |
| Total | 143 | 21 | 0 | 30 | 0 | 0 | 7 | 0 | 33 | 234 |

Proposed and Next Step Treatments by Method

| | Harvest | Site Prep | Planting | Seeding | Burning | Pesticide | Monitoring | Other | Non-Forest Mgt. | Total Acres |
|--------------|------------|-----------|----------|----------|----------|-----------|------------|----------|-----------------|-------------|
| Current | 234 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 238 |
| Next Step | 0 | 0 | 0 | 0 | 0 | 0 | 234 | 0 | 0 | 234 |
| Total | 234 | 0 | 0 | 0 | 0 | 0 | 234 | 0 | 4 | 472 |



| Stand | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
|-------|----------------|-------|--|-------------------|-----------|-------------|----------------|-------------------------|----------------------------|---------------|-----------------------------------|
| 4 | 33016004-Cut | 33.5 | 6117 - Lowland Deciduous, Mixed Coniferous | Poletimber Medium | 88 | Unspecified | Harvest | Clearcut with Retention | 613 - Lowland Mixed Forest | Two-Aged | Proposal - Approval Pending Edits |

Habitat Cut: No**Site Condition:**

Prescription Cut all trees greater than 3" dbh except cedar and hemlock.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, red maple, balsam, spruce, cedar

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

| | | | | | | | | | | | |
|---|--------------|------|---------------------|-----------------|----|-------------|---------|----------|----------------------------|-----------|-----------------------------------|
| 6 | 33016006-Cut | 10.8 | 6122 - Black Spruce | Poletimber Well | 72 | Unspecified | Harvest | Clearcut | 613 - Lowland Mixed Forest | Even-Aged | Proposal - Approval Pending Edits |
|---|--------------|------|---------------------|-----------------|----|-------------|---------|----------|----------------------------|-----------|-----------------------------------|

Habitat Cut: No**Site Condition:**

Prescription Cut all trees greater than 3" dbh.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable spruce, tamarack and white pine

Regen:

Other

No seed trees due to sphagnum moss presence, small stand size, and forest health recommendations to reduce SBW moth inceptor trees.

Comment:

Proposed Start Date: 10/01/2018

| | | | | | | | | | | | |
|----|--------------|------|-----------------------------|--------------|---|----------|---------|----------|-------------|-----------|----------------|
| 17 | 33016007-Cut | 23.5 | 4136 - Aspen, Mixed Conifer | Sapling Well | 5 | Immature | Harvest | Clearcut | 413 - Aspen | Even-Aged | Field Boundary |
|----|--------------|------|-----------------------------|--------------|---|----------|---------|----------|-------------|-----------|----------------|

Habitat Cut: No**Site Condition:**

Prescription Cut all trees greater than 3" inches. No retention will be retained.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, maple, balsam/spruce.

Regen:

Other

This stand was approved for treatment, via a chapter 7 request in December of 2015. This stand has significant budworm damage, so it is being harvested to minimize the loss of timber products.

Comment:

Proposed Start Date: 12/01/2015

| | | | | | | | | | | | |
|---|--------------|------|--------------------|-----------------|----|--------|---------|----------|----------------------------|-----------|-----------------------------------|
| 9 | 33016009-Cut | 38.7 | 6115 - Lowland Ash | Poletimber Well | 86 | 81-110 | Harvest | Clearcut | 613 - Lowland Mixed Forest | Even-Aged | Proposal - Approval Pending Edits |
|---|--------------|------|--------------------|-----------------|----|--------|---------|----------|----------------------------|-----------|-----------------------------------|

Habitat Cut: No**Site Condition:**

Prescription Cut all trees greater than 3" dbh.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Red maple, ash, balm, cedar, balsam

Regen:

Other

Forest Health consideration for EAB

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 |
|-------|----------------|-------|--|-----------------|-----------|-------------|----------------|-------------------------|----------------------------|---------------|----------------------|
| 10 | 33016010-Cut | 27.1 | 6132 - Mixed Lowland Forest with Cedar | Poletimber Well | 86 | Unspecified | Harvest | Clearcut with Retention | 613 - Lowland Mixed Forest | Even-Aged | Draft Field Boundary |

Habitat Cut: No

Site Condition:

Prescription Cut all trees 3" dbh and greater except leave cedar.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Acceptable regeneration will produce a mixed stand of conifer and deciduous tree species that are currently on site.

Other Comment: This stand was evaluated for SBW in January 2016 and proposed to treat. WLD requests retention of all cedar. "Cedar represents a significant percentage of the volume in this stand. There is good quality cedar >10" dbh found in dense pockets and scattered through this stand. The SE portion of this stand is mostly cedar. This stand had high deer usage and does provide some winter cover. I am not comfortable removing the cedar in this stand."

Proposed Start Date: 10/01/2018

| | | | | | | | | | | | |
|----|--------------|------|--|------------------|----|-------|---------|-----------|--|----------|-----------------------------------|
| 14 | 33016014-Cut | 15.6 | 4190 - Mixed Upland Deciduous with Cedar | Sawtimber Medium | 86 | 51-80 | Harvest | Seed Tree | 4190 - Mixed Upland Deciduous with Cedar | Two-Aged | Proposal - Approval Pending Edits |
|----|--------------|------|--|------------------|----|-------|---------|-----------|--|----------|-----------------------------------|

Habitat Cut: No

Site Condition:

Prescription Cut all trees greater than 3" dbh except leave cedar, hemlock and some mixed seed trees..

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Aspen, maple, spruce, balsam, birch

Other Comment: SBW has cause mortality in stand.

Proposed Start Date: 10/01/2018

| | | | | | | | | | | | |
|----|--------------|-----|--|----------------|----|--------|---------|-----------|----------------------------|----------|-----------------------------------|
| 15 | 33016015-Cut | 6.6 | 4190 - Mixed Upland Deciduous with Cedar | Sawtimber Well | 77 | 81-110 | Harvest | Seed Tree | 4319 - Mixed Upland Forest | Two-Aged | Proposal - Approval Pending Edits |
|----|--------------|-----|--|----------------|----|--------|---------|-----------|----------------------------|----------|-----------------------------------|

Habitat Cut: No

Site Condition:

Prescription Cut all trees greater than 4" dbh except leave cedar, hemlock, white pine and a mix of deciduous seed trees.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Maple, birch, balsam, balm, cedar, spruce, pine

Other Comment:

Proposed Start Date: 10/01/2018

| | | | | | | | | | | | |
|----|--------------|------|--------------------------------|-----------------|----|---------|---------|-----------------------|-------------------------|-------------|-----------------------------------|
| 18 | 33016018-Cut | 13.2 | 4110 - Sugar Maple Association | Poletimber Well | 93 | 111-140 | Harvest | Single Tree Selection | 411 - Northern Hardwood | Uneven-Aged | Proposal - Approval Pending Edits |
|----|--------------|------|--------------------------------|-----------------|----|---------|---------|-----------------------|-------------------------|-------------|-----------------------------------|

Habitat Cut: No

Site Condition:

Prescription Selection thin hardwood to 60-80 basal area removing lower quality trees. Leave some beech for mast production.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Maple, beech, basswood, ash

Other 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 |
|-------|----------------|-------|--------------------------|--------------|-----------|----------|----------------|------------------|-----------------------------|---------------|-----------------------------------|
| 19 | 33016019-Cut | 33.2 | 4134 - Aspen, Spruce/Fir | Sapling Well | 10 | Immature | Harvest | Other - Specify | 4136 - Aspen, Mixed Conifer | Uneven-Aged | Proposal - Approval Pending Edits |

Habitat Cut: No

Site Condition:

Prescription Cut all balsam, spruce, ash and maple greater than 3" dbh. Minimize damage to advanced aspen regeneration.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Good aspen regeneration present from previous harvest. Additional aspen, maple, balsam, spruce, pine

Regen:

Other Comment: Forest health treatment due to SBW in stand and potential EAB.

Comment:

Proposed Start Date: 10/01/2018

| | | | | | | | | | | | |
|----|--------------|-----|--------------------------------|----------------|----|---------|---------|-----------------------|--------------------------------|-----------|-----------------------------------|
| 34 | 33016034-Cut | 7.7 | 4110 - Sugar Maple Association | Sawtimber Well | 75 | 111-140 | Harvest | Single Tree Selection | 4110 - Sugar Maple Association | Even-Aged | Proposal - Approval Pending Edits |
|----|--------------|-----|--------------------------------|----------------|----|---------|---------|-----------------------|--------------------------------|-----------|-----------------------------------|

Habitat Cut: No

Site Condition:

Prescription Selection thin stand to 60-70 basal area with gap creation. Leave some mast producing trees.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Maple, basswood, birch, beech, oak

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

| | | | | | | | | | | | |
|----|--------------|-----|--------------------|----------------|----|-------------|---------|-------------------------|-----------------------------|----------|-----------------------------------|
| 40 | 33016040-Cut | 7.7 | 6115 - Lowland Ash | Poetimber Well | 91 | Unspecified | Harvest | Clearcut with Retention | 6139 - Mixed Lowland Forest | Two-Aged | Proposal - Approval Pending Edits |
|----|--------------|-----|--------------------|----------------|----|-------------|---------|-------------------------|-----------------------------|----------|-----------------------------------|

Habitat Cut: No

Site Condition:

Prescription Cut all trees greater than 3" dbh east of Ross Creek buffer.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Maple, spruce, cedar, balsam, ash

Regen:

Other Comment: Forest health consideration for SBW and EAB

Comment:

Proposed Start Date: 10/01/2018

| | | | | | | | | | | | |
|----|--------------|-----|---------------------------|--------------|----|----------|---------|-------------------|-----------------------------|-------------|-----------------------------------|
| 41 | 33016041-Cut | 6.9 | 42340 - Upland Spruce/Fir | Sapling Well | 26 | Immature | Harvest | Overstory Removal | 429 - Mixed Upland Conifers | Uneven-Aged | Proposal - Approval Pending Edits |
|----|--------------|-----|---------------------------|--------------|----|----------|---------|-------------------|-----------------------------|-------------|-----------------------------------|

Habitat Cut: No

Site Condition:

Prescription Cut all trees greater than 5" dbh and cut all balsam/spruce greater than 3" dbh.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Current regeneration in stand.

Regen:

Other Comment: Removal of seed trees and SBW affected species.

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 |
|-----------------------|----------------|-------|---------------------------------|----------------|-----------|----------|----------------|------------------|----------------------------|---------------|-----------------------------------|
| 42 | 33016042-Cut | 7.4 | 4119 - Mixed Northern Hardwoods | Sawtimber Well | 83 | 81-110 | Harvest | Seed Tree | 4319 - Mixed Upland Forest | Even-Aged | Proposal - Approval Pending Edits |

Habitat Cut: No **Site Condition:**

Prescription Cut all trees greater than 3" except hemlock and a mix of seed trees.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Maple, basswood, pine, balsam, hemlock, cedar

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

| | | | | | | | | | | | |
|----|-------------|-----|--------------|------------|---|-------------|--------------|--------------------------------|---------------------------|--|-----------------------------------|
| 48 | 33016048-NF | 4.0 | 3102 - Grass | Nonstocked | 0 | Unspecified | NonForestMgt | Herbaceous/Crop/Grass Planting | 310 - Herbaceous Openland | | Proposal - Approval Pending Edits |
|----|-------------|-----|--------------|------------|---|-------------|--------------|--------------------------------|---------------------------|--|-----------------------------------|

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

| | | | | | | | | | | | |
|----|--------------|-----|--------------------|--------------|---|----------|---------|----------|-------------|-----------|----------------|
| 22 | 33016070-Cut | 2.1 | 42330 - Upland Fir | Sapling Poor | 1 | Immature | Harvest | Clearcut | 413 - Aspen | Even-Aged | Field Boundary |
|----|--------------|-----|--------------------|--------------|---|----------|---------|----------|-------------|-----------|----------------|

Habitat Cut: No **Site Condition:**

Prescription Cut all trees greater than 3" inches. No retention is being retained.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, maple, and spruce/fir.

Regen:

Other

Comment:

This stand was approved for treatment, via a chapter 7 request in December of 2015. This stand has significant budworm damage, so it is being harvested to minimize the loss of timber products.

Proposed Start Date: 12/01/2015

Total Treatment Acreage Proposed: 238.0

Report 4 – Site Conditions

Escanaba Mgt. Unit
Dan Beaudou : Examiner

Compartment: 16
Year of Entry: 2019

Availability for Management

| Total Acres | Acres Available | Acres Avail | | Dominant Site Conditions | 3J | | 3L | |
|----------------|--------------------|----------------|---------------|-----------------------------|----|--|----|--|
| | | With Condition | Not Available | | | | | |
| 214 | 214 | 0 | 0 | Aspen | | | | |
| 197 | 197 | 0 | 0 | Cedar | | | 0 | |
| 4 | 4 | 0 | 0 | Herbaceous Openland | | | | |
| 19 | 19 | 0 | 0 | Lowland Aspen/Balsam Poplar | | | | |
| 49 | 49 | 0 | 0 | Lowland Conifers | | | | |
| 142 | 137 | 0 | 5 | Lowland Deciduous | 5 | | | |
| 77 | 77 | 0 | 0 | Lowland Mixed Forest | | | | |
| 6 | 6 | 0 | 0 | Lowland Shrub | | | | |
| 19 | 19 | 0 | 0 | Lowland Spruce/Fir | | | | |
| 35 | 35 | 0 | 0 | Mixed Upland Deciduous | | | | |
| 54 | 54 | 0 | 0 | Northern Hardwood | | | 0 | |
| 51 | 51 | 0 | 0 | Tamarack | | | | |
| 53 | 53 | 0 | 0 | Upland Mixed Forest | | | | |
| 44 | 44 | 0 | 0 | Upland Spruce/Fir | | | | |
| 2 | 2 | 0 | 0 | Urban | | | | |
| 966 | 961 | | 6 | Total Forested Acres | 5 | | 0 | |
| | 99% | | 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 | Dominant Site Availability | Dominant Site Condition | Acres | Other Site Condition | Other Site Condition | Other Site Condition | Other Site Condition |
|--|--------------------|----------------------------|---|-------|----------------------|----------------------|----------------------|----------------------|
| 1 | Unavailable | | 3J: Water quality / BMPs (stream, river, or lake) | 5 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: Buffer to Ross Creek | | | | | | | | |



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 | 103 |
| Comments Does not meet SCA criteria. | | | | |



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 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. |



| Stand | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|-------|--|-------------------|-------|-----------|-------------|--|
| 1 | 4191 - Mixed Upland Deciduous with Conifer | Poletimber Well | 12.4 | 75 | 81-110 | Stand was thinned in 2004 under contract 33-034-99-01. North west corner of stand is adjacent to private containing northern hardwood ridge. Most of stand in transition to lowland thus greater % of red maple. Should be ready for a treatment next cycle. Healthy looking stand at this time. |
| 2 | 6132 - Mixed Lowland Forest with Cedar | Poletimber Well | 35.1 | 89 | Unspecified | South part of stand was thinned in 2003 under contract 034-99-01. Cedar, ash less than 8" and some other conifers were retained. There is a trace of cherry, hemlock and white pine. North half was cut in 1985 where cedar was retained as well. |
| 3 | 6120 - Lowland Cedar | Poletimber Well | 9.2 | 88 | Unspecified | This stand and surrounding stand cut in 2004 under contract 33-034-99-01. Cedar, hemlock and white pine were retained. Trace species in the stand include hemlock and white pine. |
| 4 | 6117 - Lowland Deciduous, Mixed Coniferous | Poletimber Medium | 33.5 | 88 | Unspecified | Stand was reportable cut in 2004 under contract 33-034-99-01. But, areas of larger trees exist that were in the sales red line with lower ground so it seems contractor was having trouble skidding thus leaving uncut areas. Spruce budworm has been present for a while starting to cause mortality. Trace amount of birch, basswood and hemlock. |
| 6 | 6122 - Black Spruce | Poletimber Well | 10.8 | 72 | Unspecified | Nice black spruce stand but SBW starting on the west side. |
| 7 | 4319 - Mixed Upland Forest | Sapling Well | 53.4 | 19 | Immature | West half of stand cut in 1992 under contract 034-89-01 and east side of stand cut in 1998 under contract 025-94-01. Trace amounts of white pine and hemlock. Larger cedar, white pine and some seed trees were left from the previous cuts. |
| 8 | 42360 - Upland Cedar | Poletimber Well | 8.7 | 93 | Unspecified | This stand was cut in 2002 under contract 33-034-99-01. Cedar and small ash were retained. Just a small rise in elevation contributing to upland with good quality cedar. Trace of red maple and paper birch. Most of ash in a small portion of ash drain extending into the private property. |
| 9 | 6115 - Lowland Ash | Poletimber Well | 38.7 | 86 | 81-110 | Large drainage containing mostly ash with variable size and density. The majority is merchantable and will be susceptible to EAB. |
| 10 | 6132 - Mixed Lowland Forest with Cedar | Poletimber Well | 27.1 | 86 | Unspecified | Trace of black spruce, white pine, hemlock and yellow birch. Stand was previously held over from last cycle. Over mature short lived species. This stand was identified with SBW treatment in POW 2017. Due to private access along with adjacent stand treatments for POW2019, recommendation to move the SBW treatment forward onto the POW 2019 schedule. |
| 11 | 6120 - Lowland Cedar | Poletimber Well | 7.9 | 86 | Unspecified | Some heavier to ash areas but mostly cedar. |
| 12 | 42340 - Upland Spruce/Fir | Poletimber Medium | 11.3 | 17 | Immature | Stand was cut in 2000 under contract 33-034-99-01. There is a couple oak trees in the stand with cedar, pine and hemlock retained from the harvest. Larger spruce that must have been left for seed trees are mostly dead and SBW in most fir/spruce trees. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|--|----------------------|-------|--------------|-------------|--|
| 13 | 6120 - Lowland Cedar | Poletimber Well | 3.6 | 106 | Unspecified | Trace of black spruce and paper birch. Small diameter stand with most of ash in the east side of the stand. |
| 14 | 4190 - Mixed Upland Deciduous with Cedar | Sawtimber Medium | 15.6 | 86 | 51-80 | SBW is present and causing mortality. Some scattered spruce/fir still alive. Low density stand with a variable range in ash diameter from 2-14". |
| 15 | 4190 - Mixed Upland Deciduous with Cedar | Sawtimber Well | 6.6 | 77 | 81-110 | Poor quality hardwood stand with cedar in transition. Some trace amount of pine and hemlock. Mortality in the birch. |
| 16 | 6120 - Lowland Cedar | Sawtimber Well | 12.9 | 84 | Unspecified | Trace of hemlock, paper birch and yellow birch. Looks like short lived species removed at one time. |
| 17 | 4136 - Aspen, Mixed Conifer | Sapling Well | 78.1 | 5 | Immature | Stand was cut in winter 2011-2012 under contract 33-029-09-01. All cedar, hemlock, pine, oak, yellow birch and beech were retained. Good aspen and maple sprouting has occurred filling in the open areas between the residual areas of cedar and pine. |
| 18 | 4110 - Sugar Maple Association | Poletimber Well | 13.2 | 93 | 111-140 | Stand was thinned in 1998 under contract 33-009-94-01. Trace of beech, white spruce, hemlock, and balsam north end of stand. |
| 19 | 4134 - Aspen, Spruce/Fir | Sapling Well | 33.2 | 10 | Immature | Part of the stand had been cut in 1997-98 under contract 33-009-94-01. There is larger diameter spruce fir that is merchantable and has SBW. Southern end of stand in worse condition and larger diameter. |
| 20 | 6128 - Lowland Coniferous, Mixed Deciduous | Poletimber Well | 9.7 | 83 | Unspecified | Stand was cut in 1998 under contract 33-009-94-01. Most of the short lived species were removed. There is a trace of white pine, hemlock, paper and yellow birch. The south east corner is coming back nice to tamarack, black spruce and balsam with some cedar mixed in. |
| 21 | 6118 - Lowland Deciduous with Cedar | Poletimber Well | 24.6 | 86 | 81-110 | Ash drainage area, where ash appears healthy but SBW in the fir. Hold for 10 years due to large cut area in adjacent stands. |
| 22 | 42330 - Upland Fir | Sapling Poor | 25.4 | 1 | Immature | Stand was cut in fall of 2016 under contract 33-025-16-01 to address Spruce Budworm infestation. Small diameter understory remains but expected good aspen sprouting in 2017. Trace of birch, maple and ash. |
| 23 | 6115 - Lowland Ash | Poletimber Medium | 1.6 | 86 | Unspecified | Small lowland ash stand along the road. |
| 25 | 4136 - Aspen, Mixed Conifer | Sapling Well | 34.3 | 4 | Immature | Stand was cut in 2013 under contract 33-031-09-01. There is a trace amount of oak and white pine. Good regeneration of the stand with aspen leading the sprouting. |
| 26 | 6117 - Lowland Deciduous, Mixed Coniferous | Poletimber Poor | 15.9 | 77 | 1-50 | Close to being a lowland brush stand but enough trees to produce a canopy. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|--|-------------------|-------|--------------|-------------|--|
| 27 | 4130 - Aspen | Sapling Well | 7.1 | 4 | Immature | Stand was cut in 2013 under contract 33-031-09-01. Nice looking regeneration with larger balsam retained from the last treatment. There is a trace of white pine. |
| 28 | 6121 - Tamarack | Poletimber Well | 50.8 | 42 | Unspecified | Stand was cut in 1975 under contract 11-74A. Thick stand with some lowland deciduous. |
| 29 | 6132 - Mixed Lowland Forest with Cedar | Poletimber Medium | 14.5 | 93 | Unspecified | Poor quality stand but should be held one more cycle for age class diversity with adjacent stands. |
| 30 | 6129 - Mixed Coniferous Lowland Forest | Sapling Poor | 9.9 | 3 | Immature | Stand was cut in 2014 under contract 33-031-09-01. Seedlings present of black spruce, tamarack and cedar with ash sprouts. Black spruce seedlings are the most noticeable. |
| 31 | 6128 - Lowland Coniferous, Mixed Deciduous | Sapling Poor | 16.5 | 3 | Immature | Stand cut in 2014 under contract 33-031-09-01. Seedlings are becoming more noticeable. |
| 32 | 6122 - Black Spruce | Sapling Poor | 8.6 | 3 | Immature | Nice looking black spruce seedlings about 8-12" tall with tamarack seedlings 1-2' tall. |
| 33 | 6120 - Lowland Cedar | Poletimber Well | 31.2 | 93 | Unspecified | Trace amount of white pine, red maple, ash and aspen. |
| 34 | 4110 - Sugar Maple Association | Sawtimber Well | 7.7 | 75 | 111-140 | Stand was cut in 1997 under contract 33-006-96-01. Trace amount of beech, oak, and white ash. |
| 35 | 6129 - Mixed Coniferous Lowland Forest | Sapling Well | 13.1 | 17 | Immature | Stand was cut in 2000 under contract 33-006-06-01. Some trace of white pine in super canopy. |
| 36 | 6119 - Mixed Lowland Deciduous Forest | Poletimber Medium | 15.0 | 51 | Unspecified | Narrow stand with small diameter providing a buffer to the creek. |
| 37 | 4134 - Aspen, Spruce/Fir | Poletimber Well | 9.7 | 20 | Immature | Stand was cut in 1997 under contract 33-006-96-01. SBW in stand but small diameter not harvestable. The rest of the species look good. |
| 38 | 4130 - Aspen | Sapling Well | 7.0 | 3 | Immature | Stand cut in 2014 under contract 33-031-09-01. Good, dense regeneration 20'tall. |
| 39 | 6120 - Lowland Cedar | Sawtimber Well | 9.7 | 115 | Unspecified | Cedar stand with some mixed conifer, lowland deciduous and white spruce on edge of upland. |
| 40 | 6115 - Lowland Ash | Poletimber Well | 12.9 | 91 | Unspecified | Appears like all tamarack is dead. What spruce there is has been heavily defoliated. Ross Creek flows down through this stand. With the stand already long and narrow, harvestable acreage is low due to buffer provided to the creek. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|------------------------------------|----------------------|-------|--------------|-------------|---|
| 41 | 42340 - Upland Spruce/Fir | Sapling Well | 6.9 | 26 | Immature | Stand was cut in 1991 under contract 33-014-89-01. Good regeneration in a variable diameter. SBW in stand causing mortality. Treat for removal of over story to release regeneration and SBW affected species. This is access route to other stands with treatments. |
| 42 | 4119 - Mixed Northern Hardwoods | Sawtimber Well | 7.4 | 83 | 81-110 | Stand was cut in 1991 under contract 33-014-89-01. |
| 43 | 6120 - Lowland Cedar | Poletimber Well | 67.9 | 115 | Unspecified | Some wind thrown areas, wet patches with tag alder and the tamarack is mostly dead. |
| 44 | 6112 - Lowland Aspen | Sapling Well | 19.1 | 4 | Immature | Stand cut in 2013 under contract 33-027-09-01. Cedar and large white pine retained with trace amount of hemlock. |
| 45 | 4119 - Mixed Northern Hardwoods | Sawtimber Well | 19.7 | 83 | 81-110 | Stand was thinned in 2013 under contract 33-027-09-01. Nice hardwood stand with trace of birch. Sugar maple is of smaller dbh but good quality. Conifers more numerous on north and east sides of stand. |
| 46 | 4136 - Aspen, Mixed Conifer | Poletimber Well | 9.0 | 26 | Immature | Stand was cut in 1991 under contract 33-014-89-01. Nice aspen/fir/spruce with some super canopy white pine. |
| 47 | 4136 - Aspen, Mixed Conifer | Sapling Well | 32.3 | 4 | Immature | Stand cut in 2013 under contract 00-027-09-01. Good regeneration of 10-20' tall aspen. Some open areas where hardwood trees were present. Some large seed trees scattered. A small hardwood patch in the south end was thinned. No survey monument could be located in the south west corner. |
| 49 | 4134 - Aspen, Spruce/Fir | Sapling Well | 3.5 | 26 | Immature | Stand was cut in 1991 under contract 33-014-89-01. Thick aspen stand with a trace of large sugar maple. |
| 50 | 6120 - Lowland Cedar | Poletimber Well | 43.5 | 105 | Unspecified | High mortality in tamarack with lots of dead standing trees. Too far gone for harvest. Ash mostly in south western part of stand at transition to upland and appears healthy. |
| 51 | 4119 - Mixed Northern Hardwoods | Poletimber Medium | 5.8 | 78 | 51-80 | Stand was cut in 2002 under contract 33-023-02-02. Low density stand with poor quality maple. Balsam is filling in the stand. |
| 52 | 6120 - Lowland Cedar | Poletimber Well | 2.3 | 105 | Unspecified | Wet, poor quality stand with small diameter for age. |



| Stand | Cover Type | Acres | Managed Site | General Comments: |
|-------|------------------------|-------|--------------|---|
| 5 | 622 - Lowland Shrub | 6.4 | No | Lowland brush area with a few dispersed trees. |
| 24 | 122 - Road/Parking Lot | 1.5 | No | Cheese Factory Road, a blacktopped road maintained by the Menominee County Road Commission. |
| 48 | 3102 - Grass | 4.0 | No | Grass opening that is filling in with aspen after the cut in adjacent stand and some spruce/pine. |