

### **Compartment Review Presentation**

**Gaylord Forest Management Unit** 

Compartment 52115
Entry Year 2018
Acreage: 2,135
County Emmet

**Management Area: Emmet Moraines** 

Revision Date: 2016-05-12

Stand Examiner: Tricia St. Pierre

**Legal Description:** 

T36N R05W Section 22, 23, 24, 26, 27, 34, and 35.

### **Identified Planning Goals:**

To provide for the protection, integrated management, and responsible use of a healthy, productive, and undiminished forest resource base for the social, recreational, environmental, and economic benefit of the State of Michigan.

### Soil and topography:

The topography within this compartment is rather variable, undulating across most of the landscape, sometimes rather steep in areas. Although the soil type remains fairly consistent, the hydrology varies, especially in sections 22, 23, and 24. There are many springs and seeps coming from hillsides and basins that are best identified in the spring. The soils are primarily Blue Lake Loamy Sand forming well drained moraines and till plains. To a lesser extent, Kalkaska Sand (morains, outwash plains, and till plains), Tawas Muck (depressions on the lake plains), Mancelona Loamy Sand, Leelanau Loamy Sand, Au Gures Loamy Sand (gravelly subsoil variant), and a tiny inclusion of Otisco Loamy Sand are found in various locations across the Compartment. Kotar Habitat Typing is nearly entirely AFO/AFOCa, the only exceptions being a small drainage classified as PArVCo, originating from an unclassified lowland, and a separate unclassified lowland supporting a very hummocky stand. There are very few organic soils within the compartment.

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

This Compartment is contiguous in and of itself, though there are blocks of Private Land that interrupt the ownership between Compartments to the north and south. Nub's Nob Ski Resort, golf course expansion, and Private subdivision and condominium development have put extraneous pressure on the edges having implications that might affect wildlife corridors and sensitive habitat. Portions of this Compartment have been sold off in the past and others more recently to Nub's Nob

Land use is largely recreational both in and around this compartment. Many of the subdivisions are comprised of seasonal homes, there are two golf courses within close proximity, and the only nearby agricultural endeavors are a planted food plot and a semi-reclaimed Christmas Tree farm. In addition, Nub's Nob Ski Resort is a nearby attraction bringing Cross Country and Nordic Skiing into this compartment during the winter. Snowmobile Trails and the North Country Trail are also recreational attractions.

### **Unique Natural Features:**

The Michigan Natural Features Inventory (MNFI) identified very little in the way of known unique natural features, with the exception of a couple Red-Shouldered Hawk (Buteo lineatus) nests and the unlikely potential for the carnivorous English Sundew (Drosera anglica), a plant found primarily in fens, which are lacking in this Compartment. A note should be made that there is good habitat for the Northern Goshawk (Accipiter gentilis) within the area also.

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

There are few notable anthropogenic features within this Compartment, though there is some scattered evidence of human impact across the landscape. There is an abandoned railroad grade passing through section 23.

### **Special Management Designations or Considerations:**

A stand within this Compartment has been nominated for an MSU Research Study on hardwood regeneration (current March 2016). Emerald Ash Borer (EAB) and Beech Bark Disease (BBD) have swept across this and nearly all forest land in Emmet County greatly reducing the ash and beech components in the area. There has been some ash survivorship, though it is limited and Salvage efforts have greatly reduced the potential for greater survivorship. Beech Scale has greatly affected this Compartment, though there are areas that have been slower to become infected. Excessive beech regeneration is likely to be a battle throughout the foreseeable future. It may be worth having a conversation about growing red pine on some of the sites where "beech brush" is prolific. Concessions have been made in the past foregoing the management of certain stands that would affect private landowners/stakeholders. These stands have been given a Limiting Factor precluding them from management considerations.

The potential threat of Annosum Root Rot (Heterobasidion annosum) and the White Pine Fungus Scale (Matsucoccus

macrocicatrices) should also be considered across the landscape when making management decisions.

### **Watershed and Fisheries Considerations:**

Fisheries Concerns: The headwaters of McPhee Creek, a designated trout stream and a tributary to the Crooked River, flow through this compartment. Best Management Practices (100 foot no-clearcut buffer) should be followed to prevent erosion and sedimentation to the stream.

#### Wildlife Habitat Considerations:

Featured species in this compartment include turkey and deer. It is dominated by hardwoods with Beach Bark Disease and Emerald Ash Borer. Future management could include planting other tree and shrub species to increase diversity for wildlife.

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

Sections 22-24, 26-27, & 34-35, T36N R5W, Emmet County

Surface sediments consist of coarse-textured glacial till, glacial outwash sand and gravel, and postglacial alluvium. The glacial drift thickness varies between 600 and 1,000 feet. The Devonian Traverse Group subcrops below the glacial drift. The Traverse is quarried for cement products and limestone elsewhere in the state. A sand/gravel pit is located in the NW¼ of Section 22 and a former pit was located at Nub's Knob in Section 34. Sand and gravel potential appears to be good within the compartment. The nearest oil and gas production, the Antrim Shale gas play, is located 22 miles to the south. State land in the area was recently leased as part of the Collingwood Shale play. To date, there has been limited production from the Collingwood (none near this area) and it is still an unproven play. Interest in the formation has waned and all leases in the area have expired.

#### **Vehicle Access:**

Vehicular access is limited throughout this compartment, especially during the winter months except by snowmobile. Brutus, Valley, and Pleasantview Roads are the only roads plowed during the winter, though the Harbor Springs Snowmobile Trail and Powerline provide decent access to those areas that aren't accessible by wheeled traffic. Access is much better during the summer months as seasonal roads open on the perimeter and old meandering two-tracks (logging roads, in particular) become passable. Hilly terrain has limited the establishment of permanent roads throughout the area.

### **Survey Needs:**

There are no imminent survey needs at this time. Many essential corners have been established, though some need to be recorded (GPS'd) yet.

### **Recreational Facilities and Opportunities:**

Segments of the Harbor Springs Snowmobile Trail run through this Compartment from north to south along the western half, mostly. The North Country Trail (NCT) also bisects the Compartment, traversing down the center. Nub's Nob Ski Resort grooms and maintains a segment of Nordic Ski trails adjacent to (and crossing once) Chadderdon Road in the south.

### **Fire Protection:**

The risk of excessive wildfires is rather diminished in this predominately hardwood Compartment, though there are some volatile pine stands, both red and jack pine, that pose an increased risk of fire danger. Access to these stands is relatively easy, except for one red pine stand along Chadderdon Road which may be sandy or hilly.

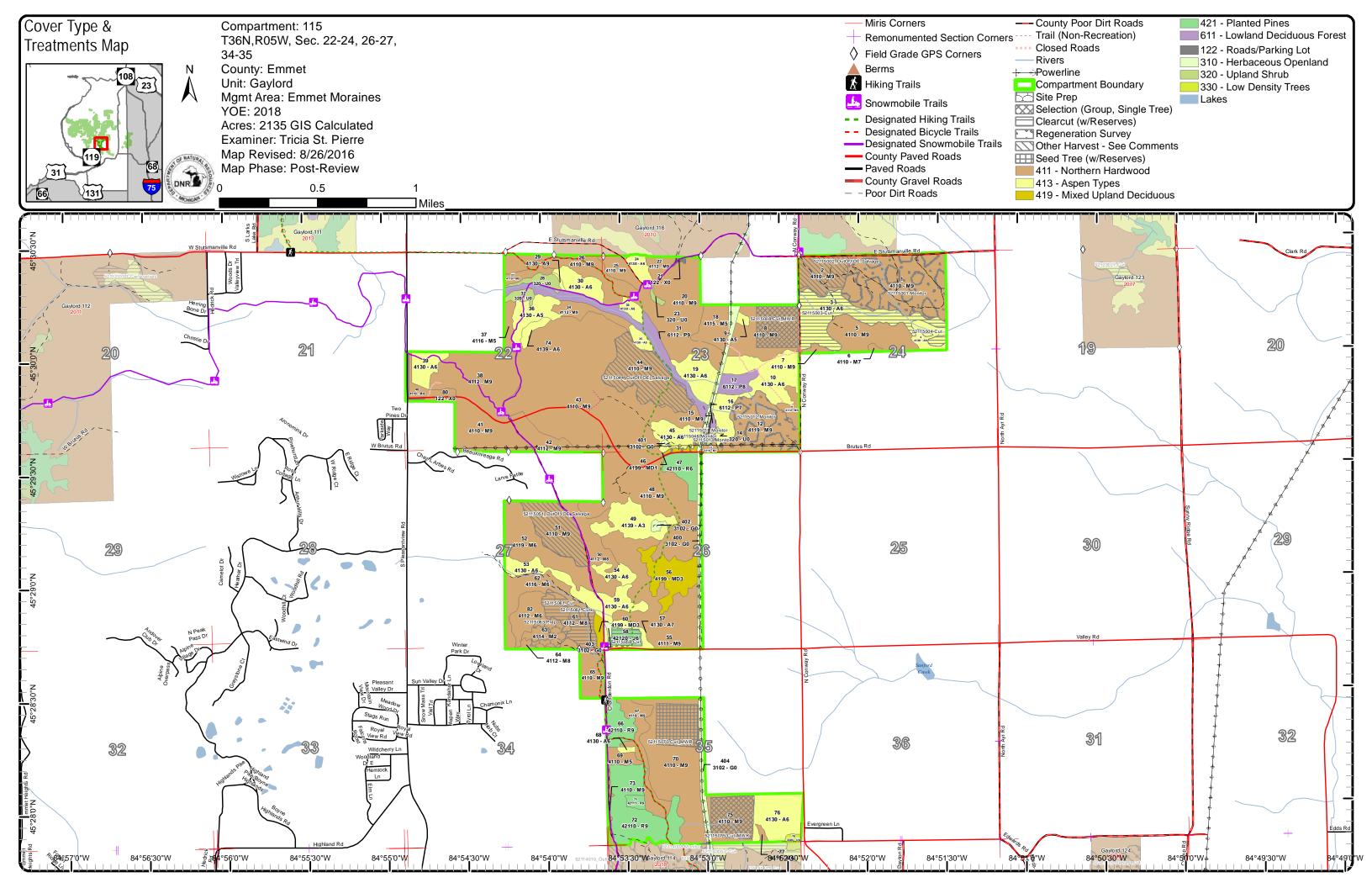
### **Additional Compartment Information:**

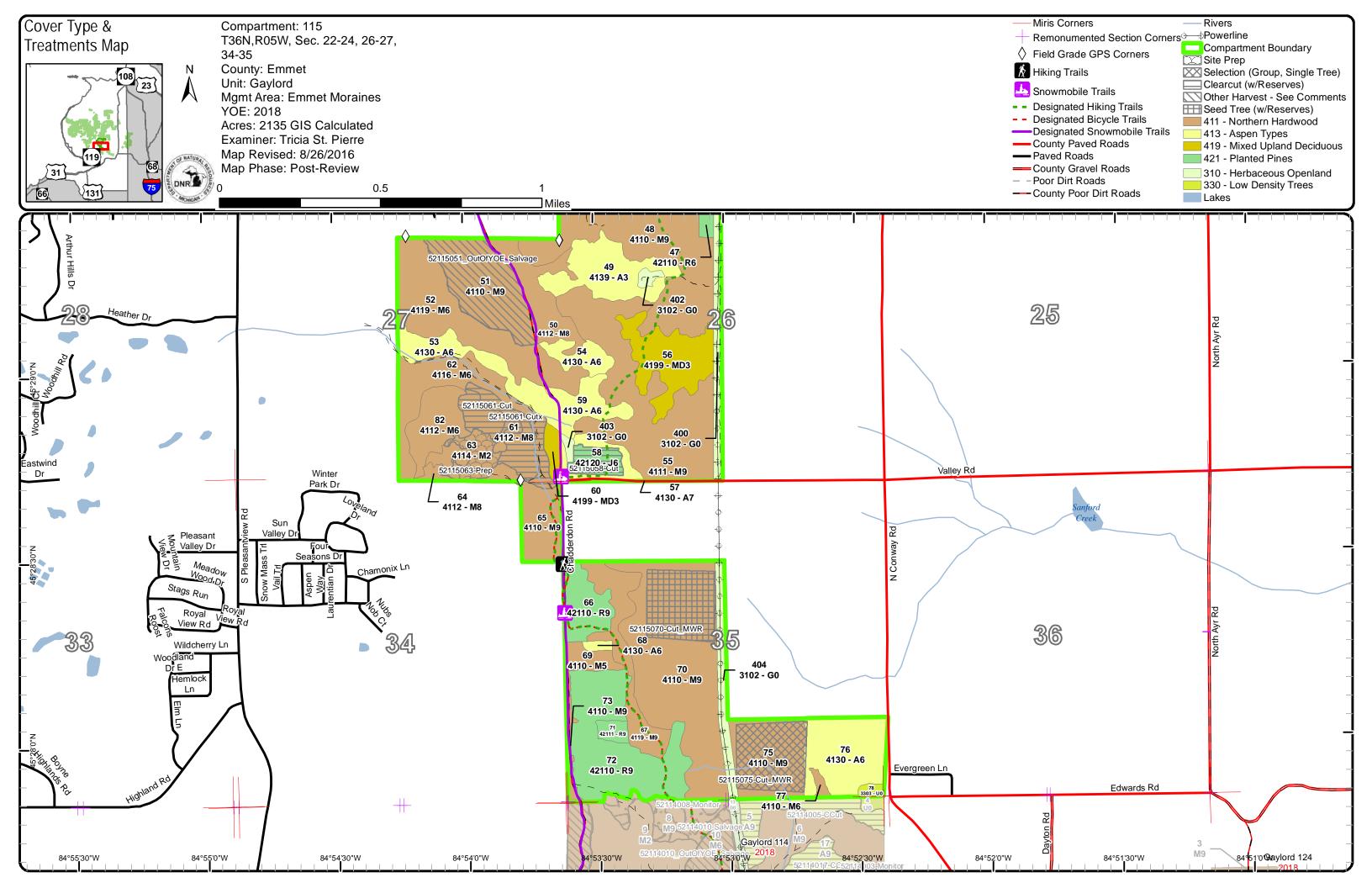
The following reports from the Inventory are attached:

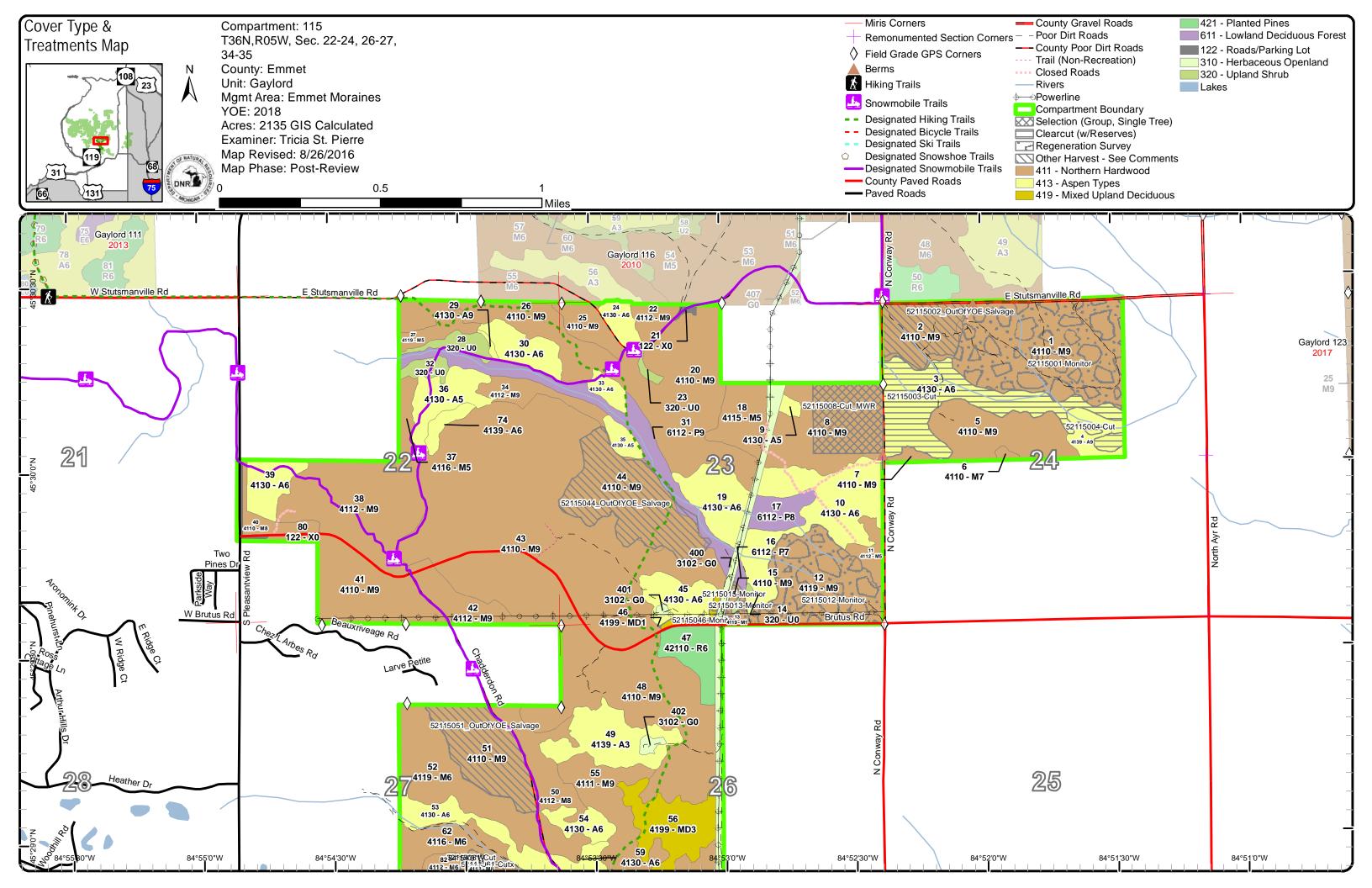
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

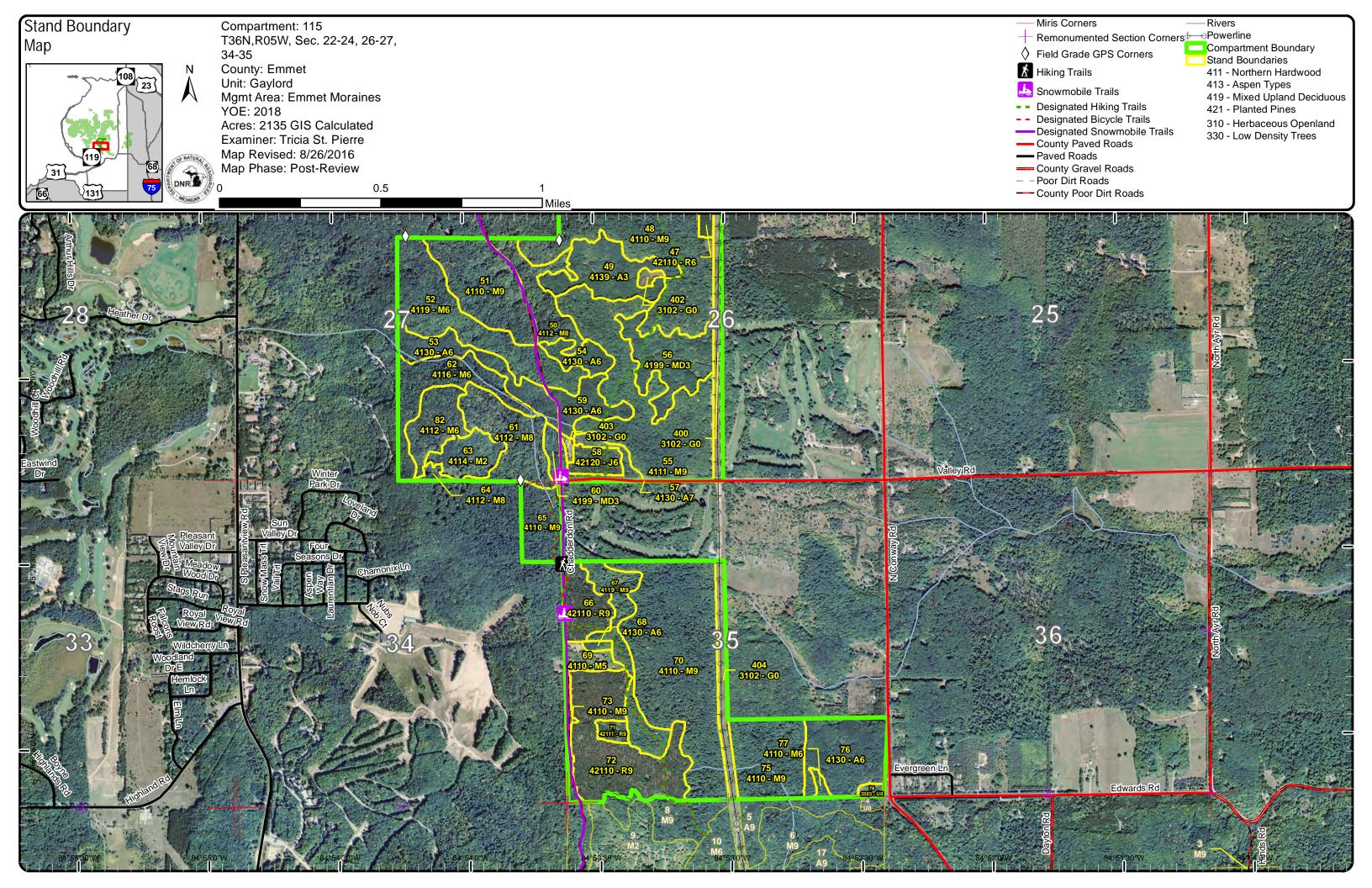
The following information is displayed, where pertinent, on the attached compartment maps:

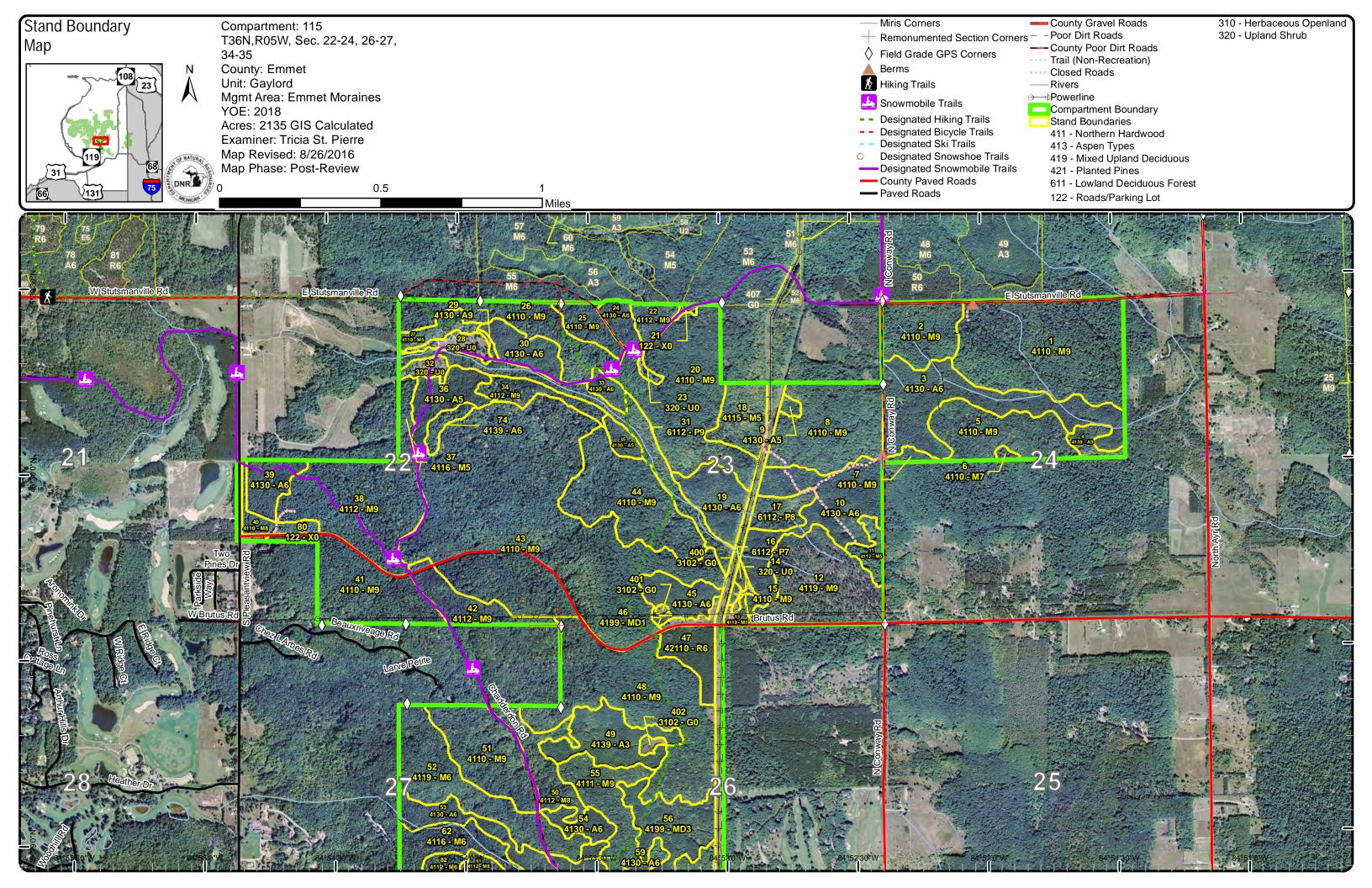
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

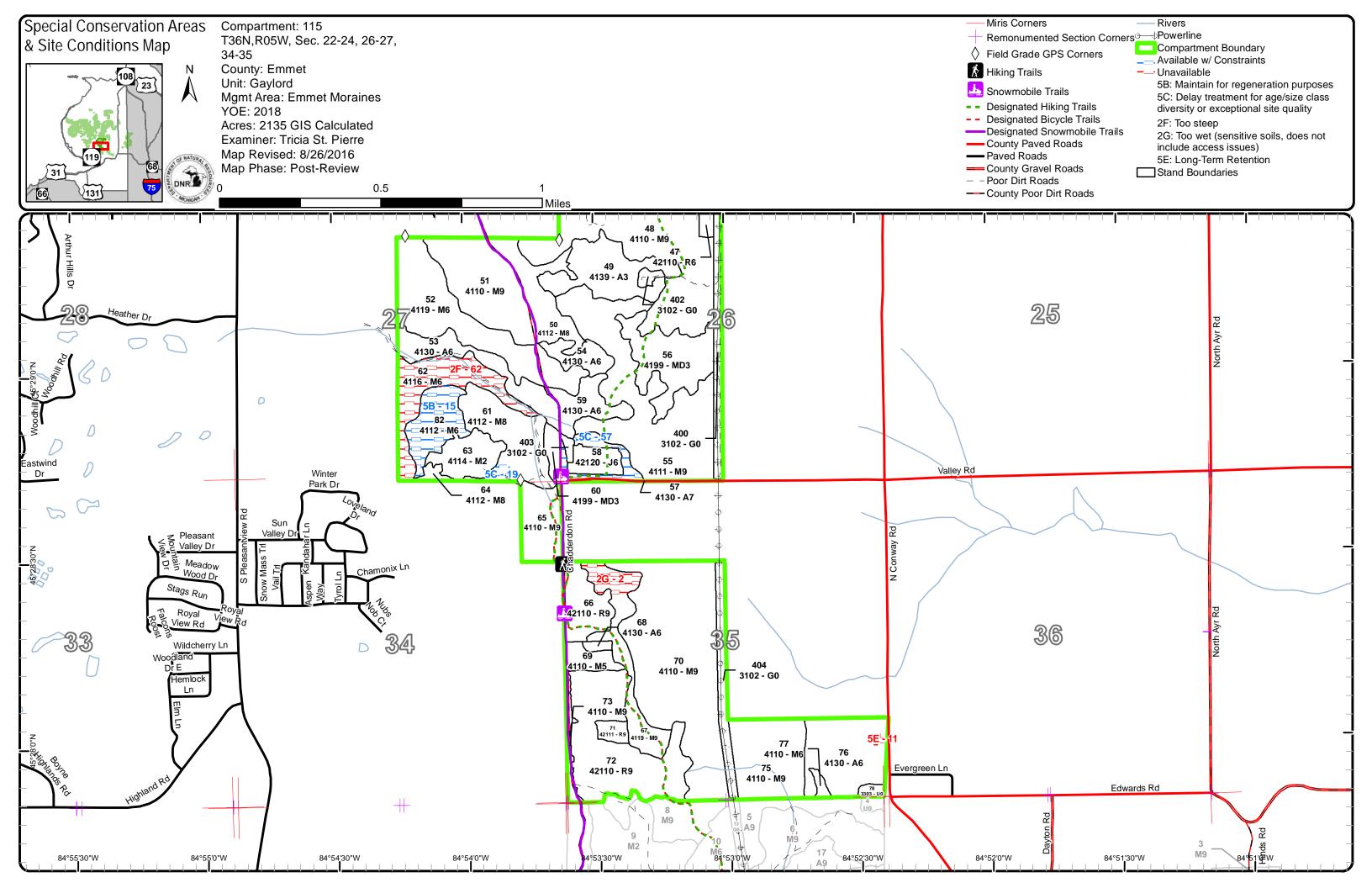


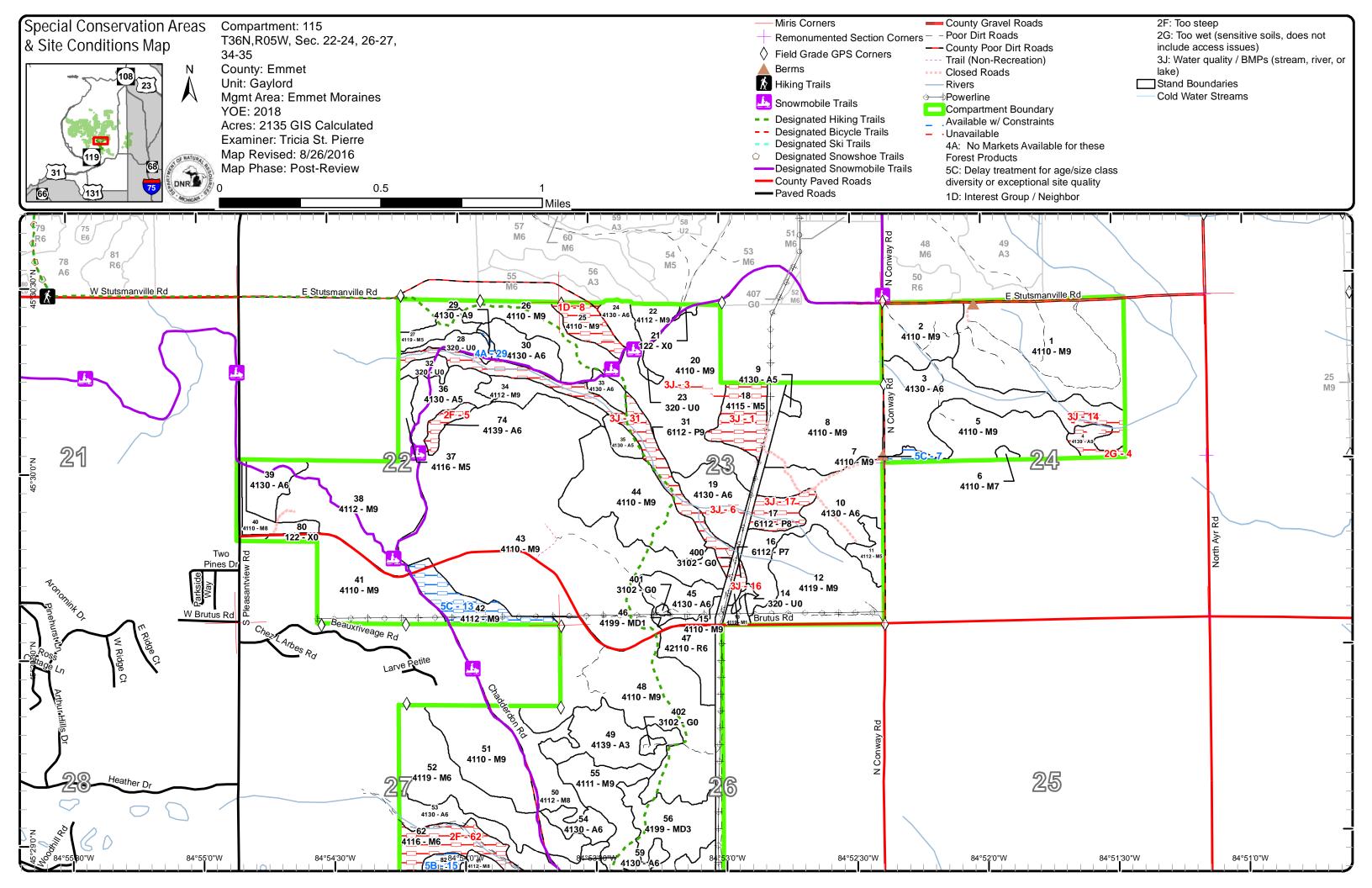












Gaylord Mgt. Unit

Tricia St. Pierre : Examiner

### Compartment 115 Year of Entry 2018



### Age Class

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	<b>≠</b> or			\$ \\ \footnote{\psi}		\ \tau_{\tau_{\tau}}	N. SO.	<b></b>	8/1	\$ \		<u></u>	20,70	`			ZES ZE	Jue J	A Lago	
Aspen	0	0	31	47	236	28	9	0	0	1	12	0	0	0	0	0	0	0	364	
Herbaceous Openland	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	
Jack Pine	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9	
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	0	0	1	11	0	0	0	0	0	0	35	47	
Mixed Upland Deciduous	0	4	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	
Northern Hardwood	0	0	15	7	0	12	0	23	119	238	775	220	77	0	0	0	0	21	1505	
Red Pine	0	0	0	16	0	0	0	80	0	0	0	0	0	0	0	0	0	0	96	
Upland Shrub	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	
Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
Total	70	4	82	70	236	49	9	103	119	240	798	220	77	0	0	0	0	56	2131	



### **Report 2 – Treatment Summary**

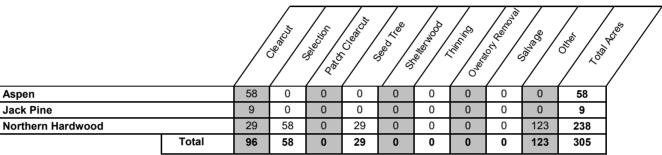
Gaylord Mgt. Unit Year of Entry: 2018

#### **Acres of Harvest**

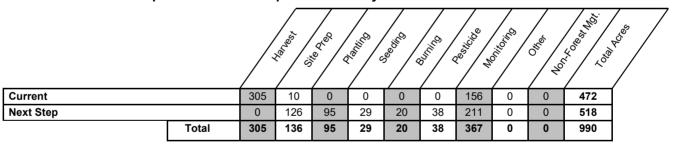
Compartment 115
Total Compartment Acres: 2,135

Commercial Harvest - 305 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

### **Cover Type by Harvest Method**



### **Proposed and Next Step Treatments by Method**



Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 115 s Year of Entry: 2018 t а **Treatment** Stand **Treatment Treatment Cover Type** Acres Stand Size BA Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure Status d Natural Regen 1 52115001-94.7 4110 - Sugar Maple Sawtimber 411 - Northern 105 81-110 Monitoring Uneven-Field Boundary Aged Association Well (Re-Inventory) Hardwood Monitor Site Condition: **Habitat Cut: No** Prescription Regen check. Specs: Next Step **Treatments:** Acceptable Minimum stocking of northern hardwoods. Regen: Other Comment: Proposed Start Date: 10/01/2015

52115002 Out 26.6 4110 - Sugar Maple Sawtimber 95 81-110 Other - Specify 4110 - Sugar Even-Aged Field Boundary Harvest OfYOE-Association Well Maple Salvage Association

**Habitat Cut: No** Site Condition:

Prescription Salvage. Harvest all white ash and beech (except any beech that show resistance to BBD). Mark den trees where possible.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments: Maple, basswood, birch, black cherry and aspen regeneration is acceptable. If beech and white ash regeneration

Comment: prohibits regeneration of other hardwood species, ash and beech may have to be treated my mechanical or chemical means.

Proposed Start Date: 10/01/2012

413 - Aspen 52115003-Cut 57.7 4130 - Aspen Poletimber 38 81-110 Harvest Clearcut Even-Aged Draft Field Well Boundary

**Habitat Cut: No** Site Condition:

Prescription Clearcut all trees to 2" dbh. Do not cut any apple trees or conifers. Incidental species found during timber sale prep may be retained. Maintain a Specs:

minimum 100' buffer on the headwaters of McPhee Creek and avoid seeps. Long-term retention will be the buffer along McPhee.

Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

Acceptable Acceptable regeneration will meet the minimum stocking requirements for aspen. An inclusion of hardwood in any density is acceptable.

Regen:

Other Be cautious of potential drainages/low pockets in the stand. Consider establishing a landing for adjacent M- and A- types next entry.

Comment:

**Proposed Start Date:** 10/01/2017

52115004-Cut 0.7 4139 - Aspen, 90 81-110 **Draft Field** Sawtimber Harvest Clearcut 413 - Aspen Even-Aged Boundary

Mixed Deciduous Well **Site Condition:** 

Prescription Clearcut all trees to 2" dbh on dry, operable ground. Treatment boundaries may vary significantly based upon soil conditions. Incidental species found during timber sale prep may be retained. Maintain a minimum 100' buffer on the headwaters of McPhee Creek and avoid seeps. No Specs:

retention due to small stand size and regeneration objectives.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

**Habitat Cut: No** 

Acceptable Acceptable regeneration will meet minimum stocking requirements for aspen. Hardwood inclusion in any amount is acceptable.

Regen:

Other Comment:

**Proposed Start Date:** 10/01/2017

Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 115 s Year of Entry: 2018 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 8 52115008-28.9 4110 - Sugar Maple Sawtimber 81-110 **Group Selection** 411 - Northern Field Boundary 85 Harvest Uneven-Cut MWR Association Well Hardwood Aged **Habitat Cut: No Site Condition:** Prescription Large group selection and patch cuts. Harvest openings will range from 0.25 -1.0 acre in size and comprise 30% of the stand. Leave Tops <9" Diameter. Specs: Monitoring, Natural Regen (Intermediate) Next Step **Treatments:** Acceptable A diverse mix of northern hardwood species. Regen: Other Comment: **Proposed Start Date:** 10/01/2016 12 52115012-54 0 4119 - Mixed Sawtimber 81 51-80 Natural Regen 41199 -Uneven-Field Boundary Monitoring Northern Hardwoods Well (Re-Inventory) Northern Aged Monitor Hardwood (OI) **Habitat Cut: No** Site Condition: Prescription Northern hardwood other than beech will be acceptable regeneration. Specs: Next Step Treatments: Acceptable Northern hardwood other than beech will be acceptable regeneration. Regen: Other Percent to Treat = 100% Comment:

**Proposed Start Date:** 

10/01/2015

4119 - Mixed 41 13 52115013-2.6 Sapling 1-50 Monitoring Natural Regen 4138 - Aspen Even-Aged Field Boundary Northern Hardwoods (Re-Inventory) (OI) Poor Monitor

**Habitat Cut: No Site Condition:** 

Prescription Minimum stocking of aspen.

Specs:

Next Step Treatments:

Acceptable Minimum stocking of aspen.

Regen: Other

Percent to Treat = 100%

Comment:

Proposed Start Date: 10/01/2015

15 52115015-1.1 4110 - Sugar Maple Sawtimber 51-80 Monitoring Natural Regen 41199 -Uneven-Field Boundary Association Well Northern

Monitor (Re-Inventory) Aged Hardwood (OI)

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

Prescription Regen survey, northern hardwood other than beech is acceptable.

Specs:

Next Step **Treatments:** 

Acceptable Northern hardwood regeneration, other than beech, is acceptable.

Regen:

**Other** Percent to Treat = 100%

Comment:

**Proposed Start Date:** 10/01/2015

Compartment: 115 Year of Entry: 2018



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
44	52115044_Out OfYOE_Salva ge	57.2 4	110 - Sugar Maple Association	Sawtimber Well	110	81-110	Harvest	Other - Specify	4110 - Sugar Maple Association	Uneven- Aged	Field Boundary

**Site Condition: Habitat Cut:** No

Prescription Salvage. Harvest all white ash and beech (except any beech that show resistance to BBD) . Mark den trees where possible. Specs:

Next Step

S

**Treatments:** 

Acceptable Regen:

Other Old next step comments: Maple, basswood, birch, black cherry and aspen regeneration is acceptable. If beech and white ash regeneration prohibits regeneration of other hardwood species, ash and beech may have to be treated my mechanical or chemical means. Comment:

Proposed Start Date: 10/01/2012

52115046-3.5 4199 - Other Mixed 46 Sapling Immatu Monitoring Natural Regen 4138 - Aspen Even-Aged Field Boundary **Upland Deciduous** Poor re (Re-Inventory) (OI) Monitor

**Habitat Cut: No Site Condition:** 

Prescription Minimum stocking of aspen.

Specs:

Next Step Treatments:

Acceptable Minimum stocking of aspen.

Regen:

Other Percent to Treat = 100%

Comment:

**Proposed Start Date:** 10/01/2015

4110 - Sugar 52115051 Out 39.3 4110 - Sugar Maple Sawtimber 111-Harvest Other - Specify Uneven-Field Boundary OfYOE Salva Association Well 140 Maple Aged Association ge

Site Condition: **Habitat Cut: No** 

Prescription Salvage. Harvest all white ash and beech (except any beech that show resistance to BBD) . Mark den trees where possible. Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments; Maple, basswood, birch, black cherry and aspen regeneration is acceptable. If beech and white ash regeneration Comment: prohibits regeneration of other hardwood species, ash and beech may have to be treated my mechanical or chemical means.

10/01/2012 **Proposed Start Date:** 

52115058-Cut Even-Aged 8.6 42120 - Planted Poletimber 51-80 Harvest Clearcut 4211 - Planted Field Jack Pine Well Red Pine Boundary -Ready for **VMS** 

**Habitat Cut: No Site Condition:** 

Prescription Final harvest jack pine and replant to red pine; interplant with oak as available. Sign and protect North Country Trail during harvesting, site prep, Specs: and planting operations.

Next Step SitePrep, Roller Chopping; Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant; Planting, Interplant; Monitoring, <u>Treatments:</u> Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Acceptable Acceptable regeneration will meet stocking requirements for planted red pine. An inclusion of oak in any stocking density in acceptable, and lower red pine basal areas will be acceptable around these oak plantings. Regen:

Other Collect jack pine cones as they mature, prior to final harvest. Consider retaining XL sugar maple as legacy tree.

Comment:

10/01/2016 **Proposed Start Date:** 

s t		Ga	aylord Mgt. Unit		Re	eport 3	Treatmen	its	•	tment: 115 Entry: 2018	OF NATURAL PROBLEMS OF NAT
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
61	52115061-Cut	19.6	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	100	81-110	Harvest	Clearcut	42140 - Planted Mixed Pine	Even-Aged	Field Boundary - Ready for VMS
	cs: Snowm	obile trail	Site Condition to 2" dbh, no reter and NCT during ha paper birch and so	– ntion due to s arvesting and	d haulin	g operation	ons. Summer-on				
			ePrep, Roller Chop nitoring, Artificial R					Trenching; Plant	ing, Initial Plant; I	Monitoring, Art	tificial
Acc Reg		_	neration will meet n ionally planted.	ninimum sto	cking re	quiremen	ts for planted co	nifer, except in ar	eas where decidud	ous species (s	pecifically oak)

_	 	_					_	 	

10/01/2016

retention due to small stand size.

8.9 4110 - Sugar Maple Sawtimber

Association

VMS **Habitat Cut: No Site Condition:** Prescription Clearcut all trees to 2" dbh. Sign and protect snowmobile trail and NCT during harvesting and hauling operations if trails are affected. No

remove heavy slash) for trenching and planting operations. Create an FTP to follow this and subsequent treatments.

81-110

Stand will require clearcutting, then roller-chopping, herbicide application, and/or alternate site prep methods (consider fire as an option to

Harvest

Clearcut

4112 - Maple.

Beech, Cherry

Association

Even-Aged

Field

Boundary -

Ready for

Next Step Planting, Interplant; Monitoring, Artificial Regen(1yr); Monitoring, Natural Regen (Re-Inventory); Planting, Interplant

Well

**Treatments:** 

Acceptable Acceptable regeneration will meet minimum stocking requirements for northern hardwood. Planted conifer and/or oak will be acceptable at any Regen: density. An inclusion of aspen will also be acceptable in any density.

Other Comment:

Other

65

Specs:

Comment:

Proposed Start Date:

52115061-

Cutx

Proposed Start Date: 10/01/2016

52115063-Sapling 63 10.4 4114 - Beech. 18 Immatu SitePrep Roller Chopping 42111 - Planted Even-Aged Draft Field Prep Hemlock Medium Red Pine, Boundary Mixed Deciduous

#### Site Condition: Shelterwood/Seed Source **Habitat Cut: No**

Prescription Site prep by roller-chopping and other mechanical/chemical means (follow-up treatments) to prepare site for trenching and planting to red pine. Exclude aspen clones from treatment. Site may be interplanted with oak and/or other deciduous and coniferous species as available and desired Specs: through Forestry and Wildlife co-management. Protect snowmobile trail and NCT from damage during management activity.

Next Step SitePrep, Other - Specify; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Treatments: Planting, Interplant

Acceptable Acceptable regeneration will meet minimum stocking requirements for planted conifer, except in areas where deciduous species have been intentionally planted. Regen:

Other Monitor and track regeneration (planted and volunteers) through an FTP at appropriate intervals. Comment

**Proposed Start Date:** 10/01/2016

Gaylord Mgt. Unit

Report 3 -- Treatments

Compartment: 115 Year of Entry: 2018



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
70	52115070- Cut_MWR	29.1	4110 - Sugar Maple Association	Sawtimber Well	91	81-110	Harvest	Seed Tree	411 - Northern Hardwood	Even-Aged	Field Boundary

Site Condition: **Habitat Cut:** No

Prescription Seed tree. A residual density of 6-8 trees per acre (~5-7% overstory cover) will be prescribed by same criteria as shelterwood trees.

Specs:

s

Next Step Pesticide, Skidder/Mechanical; SitePrep, Scarification; Seeding, Hand Seed

Treatments:

Acceptable A diverse mix of northern hardwood species.

Regen:

Other Comment:

Proposed Start Date: 10/01/2016

89 81-110 Single Tree 52115075-28.8 4110 - Sugar Maple Sawtimber 411 - Northern Uneven-Field Boundary Harvest Cut MWR Association Well Selection Hardwood Aged

**Habitat Cut: No Site Condition:** 

Prescription Single tree and small group selection. Regeneration gaps will range from single tree to 0.15 acres in size with a target residual basal area of 80

sq ft/ acre. Leave Tops <9" Diameter. Specs:

Next Step Monitoring, Natural Regen (Intermediate)

**Treatments:** 

Acceptable A diverse mix of northern hardwood species.

Regen:

Other Comment:

**Proposed Start Date:** 

10/01/2016

**Total Treatment Acreage Proposed:** 

471.7

Compartment: 115

Gaylord Mgt. Unit

Tricia St. Pierre : Examiner Year of Entry: 2018

Availa	ability for	Managemer	nt									
Total	Acres	Acres Avail	Acres	D	omina	nt Site	e Con	dition	S			
Acres	Available	With Condition	Not Available		4A	5B	5C	1D	2F	2G	3J	5E
364	335	10	18	Aspen	1		9		5	6	6	1
47	47	0	0	Herbaceous Openland							0	
9	9	0	0	Jack Pine								
2	2	0	0	Low-Density Trees								
48	0	0	48	Lowland Aspen/Balsam Poplar							48	
40	40	0	0	Mixed Upland Deciduous								
1508	1387	50	72	Northern Hardwood		22	28	12	30	8	22	
96	96	0	0	Red Pine								
16	16	0	0	Upland Shrub								
5	5	0	0	Urban								
2,135	1,937	60	137	Total Forested Acres	1	22	37	12	35	14	76	1
	91%	3%	6%	Relative Percent								

<sup>\*</sup>Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

	Dominant Site Cond 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)	19	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
C	Comments:						
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
	Comments: Origination of a see	p and small defined channel.	Multiple/\	various mammalian tracks.	Important for wildlife.		_

# Report 4 – Site Conditions

Gaylord Mgt. Unit

Tricia St. Pierre : Examiner

Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
		and some	e flowing water. There's a	a raised hill with decent asp	en that may be accessible	from the northwest
Unavailable	2F: Too steep	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Available	5C: Delay treatment for age/size class diversity or exceptional site quality	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Unavailable	1D: Interest Group / Neighbor	12	Unspecified	Unspecified	Unspecified	Unspecified
	ld be reviewed at Compartment	Pre-Rev	iew.			
	Comments:  Unavailable  Comments: The majority of this when the adjacent Unavailable  Comments:  Unavailable  Comments:  Available  Comments:  Unavailable  Comments:	Comments:  Unavailable 2G: Too wet (sensitive soils, does not include access issues)  Comments: The majority of this stand is rather wet with seeps a when the adjacent stand is harvested again.  Unavailable 2F: Too steep  Comments:  Unavailable 3J: Water quality / BMPs (stream, river, or lake)  Comments:  Available 5C: Delay treatment for age/size class diversity or exceptional site quality  Comments:  Unavailable 1D: Interest Group / Neighbor  Comments:	Comments:  Unavailable 2G: Too wet (sensitive 6 soils, does not include access issues)  Comments: The majority of this stand is rather wet with seeps and some when the adjacent stand is harvested again.  Unavailable 2F: Too steep 5  Comments:  Unavailable 3J: Water quality / BMPs 2 (stream, river, or lake)  Comments:  Available 5C: Delay treatment for age/size class diversity or exceptional site quality  Comments:  Unavailable 1D: Interest Group / Neighbor  Comments:	Comments:  Unavailable 2G: Too wet (sensitive 6 Unspecified soils, does not include access issues)  Comments: The majority of this stand is rather wet with seeps and some flowing water. There's a when the adjacent stand is harvested again.  Unavailable 2F: Too steep 5 Unspecified  Comments:  Unavailable 3J: Water quality / BMPs 2 Unspecified (stream, river, or lake)  Comments:  Available 5C: Delay treatment for age/size class diversity or exceptional site quality  Comments:  Unavailable 1D: Interest Group / Neighbor	Comments:  Unavailable 2G: Too wet (sensitive soils, does not include access issues)  Comments:  The majority of this stand is rather wet with seeps and some flowing water. There's a raised hill with decent aspwhen the adjacent stand is harvested again.  Unavailable 2F: Too steep 5 Unspecified Unspecified  Comments:  Unavailable 3J: Water quality / BMPs 2 Unspecified Unspecified  Comments:  Available 5C: Delay treatment for age/size class diversity or exceptional site quality  Comments:  Unavailable 1D: Interest Group / Neighbor  Comments:	Comments:  Unavailable 2G: Too wet (sensitive soils, does not include access issues)  Comments:  The majority of this stand is rather wet with seeps and some flowing water. There's a raised hill with decent aspen that may be accessible when the adjacent stand is harvested again.  Unavailable 2F: Too steep 5 Unspecified Unspecified Unspecified Unspecified Comments:  Unavailable 3J: Water quality / BMPs 2 Unspecified Unspecified Unspecified Unspecified Comments:  Available 5C: Delay treatment for age/size class diversity or exceptional site quality  Comments:  Unavailable 1D: Interest Group / Neighbor 12 Unspecified Unspecif

# **Report 4 – Site Conditions**

Gaylord Mgt. Unit

Tricia St. Pierre : Examiner

11	Unavailable	5E: Long-Term Retention	1	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
	Comments: This site condition	will serve as long term retention	with a	minimum 1 chain buffer arour	nd a hemlock.		
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	20	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Stream corridor.						
5	Available	5B: Maintain for regeneration purposes	17	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
7	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	11	3G: Other Influence zones - See comments	Unspecified	Unspecified	Unspecified
	Comments:						

## Report 4 - Site Conditions

Gaylord Mgt. Unit

Compartment: 115 Year of Entry: 2018 Tricia St. Pierre : Examiner

19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
		rill be heavily impacted by treatm during the next inventory cycle.	ents. Re	tain this acreage for diver	sity (heavy to paper birch)	and with the intent to reger	neration the paper
29	Available	4A: No Markets Available for these Forest Products	1	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
31	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	35	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
57	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
ı		Consider treating with J6 when it' of Chadderdon and Valley.	s final ha	rvested. There are some	XL trees that should be ke	ept for Wildlife purposes. K	eep Cedar and
62	Unavailable	2F: Too steep	30	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						

09/13/2017 4:31:06 PM - Page 4 of 4 **SWARTZN3**  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
Comments				

Gaylord Mgt. Unit Compartment: 115





### 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.

Conservation Area	Туре	Description	HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	stocked trout populations and those of other col year to year. Coldwater streams in Michigan typ	lved oxygen conditions that allow naturally-reproduced or ldwater fish species (e.g., slimy sculpin) to persist from pically provide these conditions due to substantial ws. Such streams are established by Director's action and er 210.

S t	Gaylor	Gaylord Mgt. Unit			– Forested	Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4110 - Sugar Maple Association	Sawtimber Well	97.0	105	81-110	Stand thinning was complete in 2011 as Stutsmanville Hardwood, 52-120-09-01. *Stand will require a site condition around an OFS point.*  Basal areas range from 60-100, averaging (funny enough) 82. BBD and EAB present, though not all ash are affected by EAB. Pockets of beech, especially on morainal ridges; striped maple is an associate. Some pockets with smaller diameters. There is more white ash in the northwest with a lot of mortality. Trace amounts of bigtooth aspen.  OPIC - FMD: STAND WAS THINNED BY CAMP PELLSTON IN 2002. PRIMARILY REMOVED PULPWOOD LEAVING A FULLY STOCKED STAND OF SAWLOGS. STOCKING GUIDES INDICATE THAT THE STAND COULD BE THINNED DOWN TO ABOUT 82 SQUARE FEET. Harvest completed in winter of 2010/2011.
2	4110 - Sugar Maple Association	Sawtimber Well	28.4	95	81-110	Stand is marked to be thinned. Trace amounts of bigtooth aspen, black cherry, American elm, and yellow birch. EAB present. More WA volume in northeast. Bigtooth aspen is found in a couple places throughout the stand, though there's a pole sized clone in the southwest/central hillside.  OPIC - FMD: STAND WAS THINNED BY CAMP PELLSTON IN 2002.
3	4130 - Aspen	Poletimber Well	62.0	38	81-110	Black knot and EAB present.  Pockets of much smaller diameters (especially quaking aspen pockets in lower areas) and pockets of decidedly log-sized bigtooth aspen.  Stream runs though the eastern quarter of the stand with defined banks and cedar along the edges.  There are a couple openings in the far west, the northwest of which has apple trees nearby.  OPIC - FMD: THIS STAND WAS HARVESTED IN 1979 AND THEN MANUALLY TSI'D IN 1983. STAND HAS A SMALL INCLUSION OF CEDAR IN THE FAR EASTERN END NEAR
						STAND #4. THERE WAS NO EVIDENCE THOUGH OF A STREAM OR STANDING WATER.
4	4139 - Aspen, Mixed Deciduous	Sawtimber Well	6.8	90	81-110	Hummocky with considerable blow-down in the southern portion. There's a high ridge with quaking aspen that is accessible, otherwise there are a lot of seeps (or perhaps one big seep look at it with snow-off) in the south/far east. There's also some trace balsam fir and cedar in this stand on the edge of stand 3, along the stream that runs by. OPIC - FMD: STAND OF LARGE OVER-MATURE ASPEN. MAY HAVE BEEN LEFT DUE TO CONCERNS WITH WETNESS. THE GROUND IS HUMMOCKY AND MAY BE SEASONALLY WET DUE TO SPRINGS OR SEEPS. IF NO BMP CONCERNS ARE PRESENT, CLEARCUT IN TEN YEARS WHEN STAND #5 IS THINNED.
5	4110 - Sugar Maple Association	Sawtimber Well	38.7	95	81-110	QD suggested BA around 108.  EAB but some very healthy ash yet. Some beech snap has occurred - BBD. Lots of cull beech that wasn't picked up on QD. Trace amounts of elm (15") scattered. BAs range from 60-190, averaging 118. Stand could be thinned, but there's significant decline and mortality in the beech. It might not make it to the sale to salvage. White ash should not be salvaged - mark dead/dying ash, otherwise leave it intact.  OPIC - FMD: STAND OF FAIRLY LARGE DIAMETER TIMBER THAT WAS LAST THINNED IN 1978. HOLD OFF FOR TEN MORE YEARS THEN THIN AGAIN.

s t	Gaylor	d Mgt. Unit		Report 7	– Forested	I Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
6	4110 - Sugar Maple Association	Sawtimber Poor	1.4	69	1-50	Couple of dense regen pockets, sugar maple/beech, otherwise a mix of L/P hwd, multi-stemmed.  OPIC - FMD: THIS ONCE WAS A GRASSY OPENING THAT IS SLOWLY FILLING IN WITH HARDWOODS. MOST LIKELY IT WOULD BE USED AS A LANDING NEXT TIME STAND #5 IS THINNED.
7	4110 - Sugar Maple Association	Sawtimber Well	3.1	83	81-110	Multi-stemmed beech in far west; higher stem density in that area. BBD present.  Trace white ash, elm.  Fairly deep snow at the time of inventory; difficult to judge regeneration.
8	4110 - Sugar Maple Association	Sawtimber Well	53.0	85	81-110	This stand has been nominated as a potential candidate for a new MSU research study on hardwood regeneration, 3/9/15.  Basal areas range from 90-150, averaging 116. QD indicates that basal area is quite a bit lower, at 90sqft.  Stand has been thinned before. EAB, BBD, DED present. Some porcupine damage to beech saplings; porcupine den in a beech snag. Nice XL/L BTA on the edge of powerline; a couple clones/single trees scattered otherwise. I expect that there's more basswood than what QD picked up.  Northwest quarter of the stand is very nice, high quality and higher BA, Trace amounts of white ash and yellow birch, also quaking and bigtooth aspen are both present in trace amounts. Quite a few areas heavy to pole; especially the draws. Areas with multi-stemmed lesser quality timber.  OPIC - FMD: STAND WAS LAST THINNED IN 1980. IT MAY BE READY TO THIN AGAIN IN TEN YEARS.
9	4130 - Aspen	Poletimber Medium	2.1	37	51-80	WA is just L/P, not L/P/X - EAB in ash. Trace amounts of yellow birch in the northwest. Stand sits inside the north half and bottom of half of a bowltopo map shows it pretty accurately. Stand slopes towards the powerline and has some BMP concerns. OPIC - FMD: THIS STAND MOST LIKELY ORIGINATED FROM A 1980 SALE. LOOKS LIKE ASPEN WAS REMOVED FROM A MIXED HARDWOOD STAND. THIS STAND OCCUPIES A STEEP SIDE HILL FROM WHICH A SPRING ORIGINATES. VERY HUMMOCKY INDICATING PAST BLOWDOWNS. I WOULD LIKE TO PROTECT THIS AREA FROM FUTURE MANAGEMENT DUE TO THE SPRING AND ASSOCIATED BMP'S.
10	4130 - Aspen	Poletimber Well	55.2	37	81-110	Northeast opens up to 50-75% closure, QA, BC, CC, mix hwd. Trace elm. Pockets of log BTA; few poorly formed xl sm and mixed hwd. Pockets of quaking aspen, especially in the northeast corner. Much more hardwood overall in the north half of this stand, the southeast of the north half especially. One acre pocket in SW near powerline of unharvest XL/L BTA, QA w/ pb, rm, iw, sm, be, hemlock, striped maple, bw, willow, bf, g dogwood, cattails, black ash understory. Trace amounts of white ash and black cherry scattered in the canopy. Chokecherry and striped maple are strongly associated with one another throughout the stand.  OPIC - FMD: THIS STAND WAS COMMERCIALLY HARVESTED IN 1979 - 1980 BUT WAS NEVER MANAUALLY TSI'D. AS A RESULT SOME SCATTERED HARDWOOD RESIDUAL WAS LEFT ESPECIALLY ON EXPOSED RIDGETOPS. SOME RESIDUAL WAS ALSO LEFT NEAR A SPRING THAT ORIGINATES IN THE SOUTHWEST PORTION OF THE STAND.

s t	Gaylord	Gaylord Mgt. Unit				d Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
11	4112 - Maple, Beech, Cherry Association	Poletimber Medium	8.1	76	51-80	Stand was only partially cut under the El Nino Aspen contract, 52-014-98-01.  Hillside isn't appropriate for selective management and was considered too steep by the last operator during a final harvesting operation. Lot of multi-stemmed, lesser quality trees. BBD. Better quality, single-stem log/pole sugar maple on the south hillside (n-facing), but still has multi-stemmed beech. More striped maple also on that hill; north portion is dominated by beech regeneration.  OPIC - FMD: STAND WAS TO BE CLEARCUT LAST YEAR OF ENTRY. PRODUCER WAS UNABLE TO OPERATE ON THE STEEP SLOPES. VERY LITTLE MATERIAL WAS REMOVED AND THE SALE WAS CLOSED WITHOUT BEING COMPLETED.
12	4119 - Mixed Northern Hardwoods	Sawtimber Well	55.0	81	51-80	Stand was thinned in 2014 as Caffeine Hardwood, 52-104-09-01.  Interesting management decisions. With 100% snow cover, it was difficult to inventory the regeneration, but there seems to be a lot of beech, mullein, and pockets of bigtooth aspen, all sapling. Heavy browsing on everything else. Stand is largely dominated by red maple in the northeast and transitions to sugar maple. Trace amounts of hemlock and balsam fir regenerating near the road (south edge). Trace amounts of elderberry (5-10') and yellow birch (pole). Trace amounts of white ash in the canopy. EAB and BBD present.  THIS STAND WAS THINNED IN 1977 and 2014. THERE IS A FOREST PEST MONITORING PLOT IN THIS STAND.
13	4119 - Mixed Northern Hardwoods	Sapling Poor	2.8	41	1-50	Could have called this stand Low Density Trees. It's regenerating and will most likely become fully stocked in the next couple years. Snow-off conditions might reveal other species/composition also. There is no basal area data for this stand (too young), but MiFl wouldn't accept it considering the black cherry component.  Stand was harvested along with the stand to the west of the powerline. Some uncut black cherry and ironwood. All saplings are <1".  Medium stocking of mullein around the stand.
15	4110 - Sugar Maple Association	Sawtimber Well	1.1	81	51-80	Thinned; a couple of dinged-up trees. Barely log sized. Trace balsam fir saplings by powerline.
16	6112 - Lowland Aspen	Sawtimber Poor	1.4	87	51-80	Lowland characteristics. Supercanopy QA with a sapling/pole understory. Trace basswood in the canopy, 10" L/P. Sensitive soils; seep origination.  OPIC - FMD: THIS IS AN EXTENSION OF STAND #31 ON THE WEST SIDE OF THE POWERLINE. DID NOT SEE ANY WATER BUT IT SURE APPEARS LIKE IT WOULD BE AT LEAST SEASONALLY WET.

s t	Gaylord	Gaylord Mgt. Unit				d Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
17	6112 - Lowland Aspen	Sawtimber Medium	11.3	97	51-80	EAB. Stand is dominated by QA log with lesser amounts of mixed deciduous/cedar mixed in. All kinds of flowing water through this stand; couple dense pockets of white cedar. XL BTA on edges/slopes into stand. Trace amounts of paper birch. There's a small opening in the far east with dead cedar snags, being occupied by willow, YB, and BAM. The westernmost portion of the stand also opens up and includes much more dogwood and willow. Trace cattails throughout.  OPIC - FMD: IT APPEARS THAT SOME MATERIAL MAY HAVE BEEN REMOVED FROM THIS STAND IN 1979 - 1980. SOME POCKETS OF CEDAR EXIST BUT THESE WERE INCLUDE WITH THE SURROUNDING LOWLAND HARDWOOD TIMBER TO CREATE THIS STAND. I DO NOT BELIEVE THAT THIS STAND SHOULD BE DISTURBED IN THE FUTURE IN ORDER TO PROTECT THE CREEK THAT ORIGINATES FROM A SPRING IN THIS STAND.
18	4115 - Y.Birch, Hemlock NH	Poletimber Medium	19.4	66	81-110	Upland stand with seeps and springs, flowing year-round. Quite a bit of coarse woody debris, blow-down. Sensitive soils. East half is heavier to log, west half more to pole. More beech regeneration in northeast. Could easily call this a log stand. Trace quaking aspen (xl), elm, white ash (xl, p), and beech (xl). OPIC - FMD: THIS STAND IS BISECTED BY SEVERAL FLOWING SPRINGS THAT ORIGINATE OR PASS THROUGH THIS STAND. THIS IS A VERY HUMMOCKY LANDSCAPE INDICATING A LONG HISTORY OF BLOWDOWNS. I WOULD SAY THAT WE SHOULD LEAVE THIS STAND ALONE IN THE FUTURE BECAUSE OF WATER QUALITY AND BMP CONCERNS.
19	4130 - Aspen	Poletimber Well	21.9	37	51-80	Trace amounts of hazelnut near stream in eastern portion of the stand; hemlock, one cedar confined to this area also. Trace yellow birch and paper birch. Trace WA in canopy.  OPIC - FMD: THIS STAND WAS HARVESTED IN 1979 - 1980 AND THEN MANUALLY TSI'D. I AM SURPRIZED THAT THEY CUT RIGHT UP TO THE EDGE OF THE STREAM. WILL NEED TO LEAVE BUFFERS NEXT TIME THE STAND IS HARVESTED.
20	4110 - Sugar Maple Association	Sawtimber Well	77.6	95	81-110	Trace amounts of red maple, elm, white ash, bigtooth and quaking aspen scattered throughout stand. Decline in the yellow birch. Mostly/all dead BTA, 14"+. DED, BBD. Yellow birch is in the extreme north and again appears in the south/southeast.  Areas with dense beech regen, areas with hardly any regeneration of any kind. Couple pockets of pole timber, especially east of 23 (UO) and southwest portion. Southeastern portion is similar in composition to stand 18 (to the north), but on much drier ground, higher quality stems.  Refer to QD.  OPIC - FMD: THIS STAND WAS LAST THINNED IN 1979.  SMALLER DIAMETERS HERE AND A FAIRLY LOW STOCKING LEVEL. IT MAY BE READY TO THIN IN TEN YEARS. NEED TO BE AWARE OF WETNESS CONCERNS THOUGH. SEVERAL SPRINGS FLOW THROUGH THE STAND TO THE EAST BUT GO BACK UNDERGROUND BEFORE ENTERING THIS STAND.

s t	Gaylor	Gaylord Mgt. Unit			– Forested	Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4112 - Maple, Beech, Cherry Association	Sawtimber Well	8.2	115	111-140	BBD. Trace yellow birch, 14". Trace amounts of white ash, American elm, and ironwood in canopy too. Quite a variable stand by diameters. Lesser quality hardwood, pockets of lower basal area (70-80) most areas 100-140, averaging 108.  OPIC - FMD: THIS STAND WAS LAST THINNED IN 1979. STAND HAS A LARGE PROPORTION OF LARGE DIAMETER TREES. STAND OCUPPIES A SIDE HILL BUT IT WOULD BE OPERABLE.
24	4130 - Aspen	Poletimber Well	8.1	40	51-80	Few scattered residual, unharvested log black cherry, 14". One paper birch, 2", in the northeast. A couple BAM in southern tip along road, log.  Lesser quality quaking aspen occupies the flat western half of the stand, potentially seasonally wet area near the road. Nice quality bigtooth aspen takes over on the hillside in the east half.  OPIC - FMD: STAND WAS CUT IN 1977 - 1978 AND THEN MANUALLY TSI'S IN 1980. VERY NICE REGEN.
25	4110 - Sugar Maple Association	Sawtimber Well	12.0	110	111-140	Few hemlock and yellow birch regenerating in ditch/cast-off adjacent to road in the northeast.  Faded orange and teal paint. Porcupine mecca - lots of tracks, couple dens.  Northeast portion of stand has a bit higher BA and a mix of black cherry, red maple, quaking aspen, white ash, and yellow birch, dominated by sugar maple. Northwest hill is almost all sugar maple and basswood with a few white ash. Basswood and sugar maple dominate the central portion of the stand, eventually picking up more cherry, a few quaking aspen, and some white ash towards the southeast. One hemlock in the canopy in the southernmost tip. Aspen and cherry are falling out, beech has BBD.  Trace amounts of beech in the south and west; some beech regeneration in west pocket.  Trace ironwood in canopy. Basal areas range from 90-140, averaging 123.  OPIC - FMD: THIS STAND WAS LAST THINNED IN 1978. IT WAS AGAIN TO BE PART OF A SALE THAT WAS TO BE THINNED IN 1999 BUT THIS AREA WAS REMOVED FROM THE SALE AT THE REQUEST OF A CONCERNED STAKEHOLDER. THE LARGE DIAMETERS AND FAIRLY STEEP SLOPES WERE CAUSE ENOUGH TO WARRANT THE REMOVAL OF THIS STAND FROM THE SALE.
26	4110 - Sugar Maple Association	Sawtimber Well	37.6	89	51-80	Most of the red maple volume is confined to the west quarter of the stand with generally north-facing slopes and a pocket of bigtooth aspen at the top of the hill.  Better sugar maple regeneration in draws along skid trails; higher concentration of striped maple in these areas too. East 2/3 of stand flattens out with better quality stems. Two elm (QD picked one up, along with a few of the only hemlock), one cull white pine, and trace hemlock. QD plots seemed unrepresentative of the stand as a whole.  OPIC - FMD: THIS STAND WAS THINNED OVER A MULTI YEAR PERIOD ENDING IN 2004. IN HINDSIGHT THIS SHOULD NOT HAVE BEEN THINNED. THE STAND IS NARROW AND OCCUPIES A STEEP RIDGE. SEVERE RUTTING OCCURRED ON SEVERAL OF THE MAJOR SKID TRAILS. COMPOUNDING THE PROBLEMS IS THE FACT THAT THE NORTH COUNTRY PATHWAY TRAVELS THROUGH THE LENGTH OF THE STAND. THIS PATHWAY RECEIVED VERY HEAVY DAMAGE IN SEVERAL LOCATIONS. IT MIGHT BE BETTER TO LEAVE HANDS OFF THIS STAND IN THE FUTURE.

s t	Gaylord	Gaylord Mgt. Unit			– Forested	Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
27	4119 - Mixed Northern Hardwoods	Poletimber Medium	8.5	43	1-50	<1/4 ac inclusion of scotch pine plantation on the southwestern edge. Old private signs too - verify boundary.  This stand is a predominately south-facing hillside with some bigtooth on top of the hill, on flatter terrain, otherwise occupied by multi-stemmed, wolfly hardwood (SM/BE), black cherry "brush", and various hardwood poles. Black knot, EAB, BBD present.  OPIC - FMD: STAND OCCUPIES A RIDGETOP AND A SOUTH FACING SLOPE. THE TIMBER FOR THE MOST PART IS LOW QUALITY AND OPEN GROWN.
29	4130 - Aspen	Sawtimber Well	1.1	87	81-110	Stand appears to have been left as a buffer to prevent further encroachment into adjacent NF stand.  OPIC - FMD: NOT SURE WHY THIS WAS NOT CUT ALONG WITH STAND #30 ADJACENT. NEXT TIME THAT STAND IS CUT THIS SHOULD BE INCLUDED UNLESS THE ASPEN HAS DIED OUT BY THEN.
30	4130 - Aspen	Poletimber Well	15.9	39	81-110	EAB in ash. Almost entirely bta canopy with the exception of the northern quarter of the stand and portions along the road. Trace quaking aspen in extreme eastern tip, also some L/XL sm. OPIC - FMD: STAND WAS CUT IN 1977 THEN MANUALLY TSI'D IN 1980. NICE QUALITY REGEN.
31	6112 - Lowland Aspen	Sawtimber Well	34.8	87	81-110	Stream corridor. Self-perpetuating stand of aspen-mixed hardwood/conifer. Snow-off inventory would likely produce much greater diversity in the understory.  Old logging roads adjacent to stream in spots. Aspen supercanopy is represented as the canopy along with mixed hardwood. Lots of CWD and snags; areas dominated by pole/sapling qa, bam, yb, ba; pockets dominated by hardwood, others yet by mixed hardwood and conifer. One gooseberry, trace honeysuckle, trace black cherry (LP); trace pole ironwood, basswood. More log hardwood (sm especially) in west. Cedar is sporadic but present throughout the entire stand. Hemlock is present in the eastern 2/3rds, not the western third.  OPIC - FMD: THIS STAND STRADDLES BOTH SIDES OF WHAT APPEARS TO BE A YEAR ROUND FLOWING CREEK. CREEK HAS LOTS OF NICE GRAVEL SHOWING. THIS STAND ACTS AS A NICE BUFFER THAT IS PROTECTING THE STREAM.
33	4130 - Aspen	Poletimber Well	5.7	39	111-140	Trace amounts of black cherry in the canopy. More sugar maple regeneration in the south half. Larger diameters in the north and west, 8"+. Trace amounts of hardwood in canopy too.  Small drainage in southeast. Trace amount of hazelnut, black ash transitioning into stream corridor.  OPIC - FMD: STAND WAS CUT IN THE WINTER OF 1977 - 1978 THEN MANUALLY TSI'D IN 1980. STAND BOUNDARY ON THE EAST SIDE IS AN OLD RAILROAD GRADE.
34	4112 - Maple, Beech, Cherry Association	Sawtimber Well	12.6	89	81-110	Fairly steep terrain, becoming less so in the east. The majority of the stand is north facing and slopes into the stream corridor creating a BMP concern. Dead pole hemlock; some pole striped maple. Basswood is confined to the eastern portion of the stand. Basal areas are steadily between 70-110.  OPIC - FMD: STAND LIES ON THE SLOPES OF AND AT THE BASE OF A STEEP RIDGE. QUITE A BIT OF RED MAPLE IN THIS STAND. THIS STAND SERVES AS A TRANSITION LEADING DOWN TO THE CREEK BOTTOMLAND AND SHOULD BE MANAGED IN THE FUTURE WITH THE IDEA OF PROTECTING THIS WATER COURSE. IT MAY BE BEST TO DO NOTHING HERE.

s t	Gaylor	Gaylord Mgt. Unit			– Forested	Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
35	4130 - Aspen	Poletimber Medium	5.7	39	81-110	Trace cedar in the canopy, log/pole. Lots of seeps throughout stand - potential for standing water in the spring. YB, RM, BAM transitioning into adjacent stream corridor.  OPIC - FMD: STAND WAS CUT IN 1977 - 1978 AND THEN TSI'S IN 1980. THIS STAND HAS SOME WETTER POCKETS IN IT WITH EVEN SOME SCATTERED RESIDUAL CEDAR.
36	4130 - Aspen	Poletimber Medium	19.7	40	111-140	The north edge of the stand is progressively encroaching on the adjacent UO. There's more hardwood in the understory in the north (PB, IW, YB all here). Trace amounts of red maple, black cherry, and sugar maple in the canopy.  OPIC - FMD: THIS STAND WAS CUT IN 1977 THEN MANUALLY TSI'D IN 1980. VERY NICE ASPEN REGEN.
37	4116 - Mixed N. Hardwood - Aspen	Poletimber Medium	7.9	89	51-80	No XL beech or sugar maple. more pole timber in the north end of the stand. Aspen starting to fall out in portions of the stand. Boundary line is not consistent with private signs; similar issue with stands to the north. Survey suggested.  OPIC - FMD: STAND HAS MORE ASPEN IN AS COMPARED TO STAND #38 TO THE SOUTH WHICH IS WHY THIS WAS BROKEN APPART. SUGGEST LETTING THE ASPEN COMPONENT DIE OUT NATURALLY. EVENTUALLY THEN THIS STAND WOULD BE COMBINED WITH STAND #38.
38	4112 - Maple, Beech, Cherry Association	Sawtimber Well	67.6	108	81-110	Thinning was completed in 2011 as Beaux Ridges Hwd, 52-101-09-01. Residual BAs vary from 60-110, averaging around 84. Heavy to red maple in the south-southeast, otherwise dominated by sugar maple. Few dead yellow birch. A lot of raspberry, especially along roads, skid trails, forest openings. BBD, EAB (some ash are looking healthy yet). Ironwood, beech, and raspberry dominate regeneration. Extreme browsing on all other species.  OPIC - FMD: NEED TO BE AWARE OF THE POTENTIAL FOR RED SHOULDERED HAWK NESTS IN THIS STAND.
39	4130 - Aspen	Poletimber Well	14.7	29	81-110	Most hardwood in canopy is multi-stemmed. Stand consists of both bigtooth and quaking aspen. QA occupies lower, potentially wetter portions of the stand and has a much greater component of honeysuckle in the understory, 1 white spruce 2" dbh, 20'. There are some log/pole mixed deciduous trees on the edges of the stand.  OPIC - FMD: STAND WAS CUT IN 1988. DIAMETERS RUN ABOUT 2 - 4 INCHES. QUITE A BIT OF HARDWOOD IN SOME AREAS OF THE STAND.
40	4110 - Sugar Maple Association	Sawtimber Medium	8.4	89	81-110	Even-aged canopy, understocked, with an uneven-aged subcanopy. Old railroad grade through stand? Canopy closes in the southern portion of the stand, closer to 90% in far east. BTA is falling out. Trace scotch pine, yellow birch, ironwood, quaking aspen in canopy. Trace red pine in subcanopy (just one).  OPIC - FMD: STAND WAS LEFT AS A BUFFER WHEN STAND #39 WAS CUT. I WOULD SUGGEST LETTING THE ASPEN COMPONENT DIE OUT NATURALLY SO THAT THIS STAND WILL EVENTUALLY BECOME A MORE FULLY DEVELOPED HARDWOOD STAND.

S t	Gaylor	Gaylord Mgt. Unit			– Forested	I Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	4110 - Sugar Maple Association	Sawtimber Well	47.0	98	81-110	Thinning was completed in 2011 as Beaux Ridges Hwd, 52-101-09-01. Residual BAs vary from 50-150 (higher densities on steeper hillsides), averaging about 95.  Old utility line runs E-W through the southern edge of the stand. Raspberries are most prevalent along the utility line and also in skid trails and open areas of the stand. Southwest corner of stand is fairly unimpressive - lesser quality red maple, beech, sugar maple - all multi-stemmed, open grown. High ironwood and beech regeneration, one red oak, 10" dbh in southwest. Trace pole yellow birch in the extreme southwest corner, most occurrences on private land. The rest of the stand is rather good quality with some great form in sugar maple and basswood. Trace amounts of bigtooth aspen and yellow birch in canopy. The regeneration is variable by species composition and density - white ash and beech are both clumpy (higher volumes in patches), but consistently present throughout. Very few sugar maple regenerating, especially lacking seedlings .5'<12'. Beech and red maple in canopy are clumpy (not consistent throughout). One hemlock in subcanopy by Brutus road.
42	4112 - Maple, Beech, Cherry Association	Sawtimber Well	20.0	86	111-140	Stand is dominated by red maple, majority is multi-stemmed. Old utility line runs E-W through stand. Trace amounts of white ash, basswood, and black cherry (one QA (pole), one XL hemlock) in the canopy. BBD and EAB present. BTA becomes more prominent in southeast, especially in eastern leg and up the hill. Few XL sugar maple, beech scattered along edge of old utility line.  OPIC - FMD: THIS STAND WAS LAST THINNED IN 1978. THIS IS NOT AS GOOD OF TIMBER AS THE ADJACENT STANDS. QUITE HEAVY TO RED MAPLE. MOST LIKELY IT CAN BE THINNED NEXT TIME STAND #43 IS TREATED.
43	4110 - Sugar Maple Association	Sawtimber Well	246.0	90	51-80	Stand thinning was complete in 2011 as Beaux Ridges Hwd, 52- 101-09-01.  Regen gaps(?) were largely dominated by bigtooth aspen and beech, but varied greatly. Striped maple, sugar maple, and ironwood are other major species regenerating in the gaps, also white ash to a lesser extent.  Some of the residual ash are still healthy, but EAB has killed most. BBD prolific, some beech snap.
44	4110 - Sugar Maple Association	Sawtimber Well	57.1	110	81-110	(No XL BW) - Salvage # 26, PU2.  EAB and BBD in stand. Some healthy ash yet! Most ash throughout the stand is 16-18", except a pocket in the southeast-central portion of the stand with 10-14" diameters - dense clump. Trace black ash, white ash, yellow birch regenerating near the seep in the southeast. Composition around the seep is an aspen inclusion, bta and qa, 14/16". Small [seasonal?] stream flowing northeast.  OPIC - FMD: THIS STAND HAS SOME UNIQUE CHARACTERISTICS. LOTS OF LARGE DIAMETER TIMBER WITH A LOT OF DEAD AND DOWN. IT OCCUPIES STEEP TERRAIN FOR THE MOST PART WHICH APPARENTLY HAS PREVENTED IT FROM BEING THINNED IN THE PAST. MAY BE A GOOD STAND TO LEAVE ALONE.
45	4130 - Aspen	Poletimber Well	16.5	28	51-80	Apple tree near GO. Few log sugar maple, aspen on southwest edge of Brutus Road. One white ash log. Pockets with high density of sugar maple saplings; other areas with high honeysuckle shrubs. West portion of stand is higher in aspen stocking; less volume, smaller diameter, closer to 50-75% closure in eastern half. Trace amount of basswood in canopy. OPIC - FMD: STAND WAS CUT BACK IN 1988 - 1989. REGEN IS COMING BACK VERY WELL WITH DIAMETERS FROM 2 - 4 INCHES.

S t	Gaylor	Gaylord Mgt. Unit			<ul><li>Forested</li></ul>	Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
46	4199 - Other Mixed Upland Deciduous	Sapling Poor	3.5	2	Immature	Could have called this stand Low Density Trees. It's regenerating and will most likely become fully stocked in the next couple years. Snow-off conditions might reveal other species/composition also.  Stand was harvested along with the stand to the east of the powerline. Some uncut black cherry and ironwood. All saplings are <1".
47	42110 - Planted Red Pine	Poletimber Well	16.4	27	141-170	Aspen in the canopy is a mix of bigtooth and quaking. Few other miscellaneous hardwood in the canopy, pole/sap. Increased sapling understory in the south leg.  Trace hardwood encroaching on edges, sapling sugar maple, ironwood, and paper birch. Occasional log red pine (barely) on edge. Rows seem to have been planted at 4x6 to 5x6 spacing. Roughly 30% crowns; occasional schoolmarm.  OPIC - FMD: ORIGINAL STAND WAS FINAL HARVESTED IN 1988 FOLLOWED BY A PRESCRIBED BURN TO REDUCE SLASH IN 1989. STAND WAS THEN HAND PLANTED IN 1990.
48	4110 - Sugar Maple Association	Sawtimber Well	96.5	99	81-110	Trace amounts of black cherry, paper birch, and yellow birch in the canopy.  White ash mostly on the north-facing slopes and in draws.  Dense beech regeneration to the north of the adjacent (stand 49) clearcut. More irwonwood too.  EAB, BBD came and went through this stand. Not a lot of flecking of white ash, but quite a bit of mortality. Basswood declining over 14" dbh. Small pocket of white ash regeneration south of bend in Brutus Rd. Barbed wire behind RP plantation plot 30 of QD is unrepresentative. NCT and XL hwd in the same area.  Nice, platey sugar maple in spots - good for bats. Small band of red maple, black cherry (trace paper birch) in narrow strip dividing the north and south portions of the stand.  Couple small non-forested openings adjacent to utility line with mixed deciduous. Some red pine, white spruce, and juniper in the northernmost opening.  Basal areas range from 80-160, 115 average.  OPIC - FMD: THIS IS A NICE STAND BUT JUST NOT QUITE READY YET TO THIN. STAND EXPERIENCED SOME LOSS TO WINDTHROW FOLLOWING A SUMMER 2003 STORM.
49	4139 - Aspen, Mixed Deciduous	Sapling Well	30.8	18	Immature	Few scattered pole bigtooth aspen, barely 5". Pockets more exclusively bigtooth aspen are 3-4" + few pole. Black knot in cherry. Trace paper birch, basswood. I'm surprised that I didn't see any red maple during inventory. Trace amount of basswood. OPIC - FMD: STAND WAS CUT IN 1998 - 1999. IT IS COMING BACK NICELY TO A MIX OF ASPEN AND HARDWOOD.
50	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	21.9	62	81-110	BBD present but not prolific. Trace yellow birch throughout stand. Lots of multi-stemmed, lesser quality hardwood with aspen pockets. Trace white ash (in the south only), yellow birch, paper birch, quaking aspen, and black cherry.  Basal areas are divided, ranging from 60-70 and from 120-140, with very few "in between" volumes. This is a product of past management, EAB/BBD, declining aspen, and stem quality.  OPIC - FMD: THIS IS A STAND OF POOR QUALITY TIMBER OCCUPYING A VALLEY. SOME ASPEN IS MIXED IN BUT IN MY ESTIMATION THERE IS NOT ENOUGH TO COUNT ON REGENERATING THE STAND IF IT WAS TO BE FINAL HARVESTED. SUGGEST LETTING THIS SLOWLY CONVERT TO A PURE HARDWOOD STAND BY LETTING THE ASPEN DIE OUT.

s t	Gaylord	Gaylord Mgt. Unit			<ul><li>Forested</li></ul>	Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
51	4110 - Sugar Maple Association	Sawtimber Well	40.4	93	111-140	Existing treatment on stand. Morainal, some steeper slopes. Lots of multi-stemmed trees in the east half. Trace log ironwood in canopy; trace qa, yellow birch. EAB present, but there is a lot of ash unaffected. Beech regen clumpy but persists throughout. Ironwood regen is pretty clumpy too. I would be surprised if there weren't areas of dense ash seedlings/saplings under the snow. OPIC - FMD: TERRAIN IN THIS STAND WILL POSE SOME CHALLENGES BUT IT SHOULD BE OPERABLE IN TEN YEARS FOR A SELECTION THINNING. UPPER SLOPES EXPERIENCED SOME WINDTHROW FROM A SUMMER 2003 STORM.
52	4119 - Mixed Northern Hardwoods	Poletimber Well	52.0	90	81-110	5 acre pocket of good quality, single stem hardwood on western plateau.  BBD mortality; EAB decline and mortality, though some ash show no signs of EAB.  Undulating stand; slight changes in aspect and terrain have pretty significant impacts on species composition.  OPIC - FMD: THIS STAND IS OF LESSER QUALITY THAN STAND # 51 ADJACENT. THIS STAND IS ESSENTIALLY POLE TIMBER. RED MAPLE AND ASPEN TEND TO DOMINATE THE LOWER SLOPES OF VALLEYS WHICH TEND TO BISECT THIS STAND. CLEAR CUTTING WOULD NOT BE A DESIRABLE MANAGEMENT STRATEGY. I WOULD SUGGEST PRESCRIBING THIS FOR A SELECTION HARVEST NEXT TIME THE ADJACENT STAND IS THINNED. SOME PORTIONS JUST WILL NOT BE OPERABLE. UPPER SLOPES EXPERIENCED QUITE A BIT OF BLOWDOWN FROM A SUMMER 2003 STORM.
53	4130 - Aspen	Poletimber Well	21.8	36	51-80	Striped maple and sugar maple are by and large suppressed, being out-competed by aspen. Few bigtooth aspen and red maple converging on log-sized. Stand goes into a draw in the middle; some good slopes but operable. 1 red oak, 10" dbh. Most of the hardwood component of this stand is multi-stemmed. Found 2 yellow birch. Greater hardwood inclusion and diversity in the southeast and west portions of the stand. White ash picks up in the southwest corner of the stand.  OPIC - FMD: THE HARVEST OF THIS STAND WAS COMPLETED IN 1981 AND THEN MANUALLY TSI'D IN 1982 - 1983. THERE IS QUITE A BIT OF HARDWOOD REGEN MIXED IN AS WELL.
54	4130 - Aspen	Poletimber Well	9.3	39	51-80	EAB present but not prolific. Trace log black cherry, pole paper birch, sap/pole ironwood, pole basswood (on south edge), pole quaking aspen, and pole/sap red maple. Draws (cooler, wetter) are dominated by sapling/pole, rather than pole/sap. Trace striped maple in the understory.  OPIC - FMD: STAND WAS CUT IN 1978 - 1979 AND THEN MANUALLY TSI'D IN 1982 - 1983.
55	4111 - S.Maple, Hard Mast Association	Sawtimber Well	81.4	79	81-110	Beech bark disease is prolific. QD didn't seem to be representative of the whole stand, especially with some of the edge plots picking up larger diameter trees. Quality of the stand greatly improves in the south, dominated by sugar maple. North end is lesser quality red maple, sugar maple, beech. South has minimal beech in the canopy of subcanopy.  OPIC - FMD: THIS STAND WAS LAST THINNED IN 1978 BUT THE STOCKING JUST DOES NOT WARRANT THINNING AGAIN THIS YEAR OF ENTRY.

S t	Gaylor	Gaylord Mgt. Unit				Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	4199 - Other Mixed Upland Deciduous	Sapling Well	31.7	17	Immature	Low end of 75% canopy coverage.  Black knot present. Pockets dominated by bigtooth aspen. No distinct stratification yet, though the pockets dominated by aspen will likely be there next cycle. Sugar maple, ironwood, choke cherry/black cherry dominated, then bigtooth and beech although the aspen is present in an amount that will probably kick this into being classified as an aspen stand. Trace paper birch, red maple. Trace amounts of striped maple in the canopy. OPIC - FMD: STAND WAS CUT IN THE WINTER OF 2000.
57	4130 - Aspen	Sawtimber Poor	9.3	56	1-50	Under-stocked aspen canopy with fully-stocked hardwood subcanopy. Sap/pole could be showcased as dominant stand. Aspen is not well suited for this site and is falling apart. BBD present. Multi-stemmed canopy hardwood. One cedar and one walnut near corner of Chadderdon and Valley Rds. OPIC - FMD: THIS STAND HAS HAD SOME MATERIAL REMOVED PREVIOUSLY. I WOULD SUGGEST THAT DUE TO THE DEVELOPMENT OF THE ADJACENT PRIVATE LANDS, THIS STAND SHOULD BE LEFT TO CONVERT TO NORTHERN HARDWOODS. ALSO OF CONCERN IS THAT A SECTION OF THE NUB'S NOB CROSS COUNTRY SKI TRAIL GOES THROUGH THIS STAND AS DOES THE NORTH COUNTRY PATHWAY.
58	42120 - Planted Jack Pine	Poletimber Well	8.6	48	51-80	Ave BA - 77.5; ave dbh - 9.5; ave crowns - 18.75%; ave 10.8 dead BA Sugar maple has gooseberry growing out of it 10' up at a major crotch. Roughly 10% of the live stock has crown damage or deformity, being a fork, competing laterals, etc. Some sap sucker damage to boles. OPIC - FMD: THIS IS A MSU SEED ORCHARD RESEARCH STAND. 120 DIFFERENT JACK PINE SEED SORCES WERE PLANTED HERE IN 1969. SOME INFERIOR VARIETIES WERE MANUALLY REMOVED IN 1987. ROUND-UP WAS AERIALLY APPLIED IN 1995 IN AN ATTEMPT TO CONTROL THE HARDWOODS. MSU MAY WANT TO ONCE AGAIN GO THROUGH AND MANUALLY REMOVE SOME OF THE INFERIOR TREES.
59	4130 - Aspen	Poletimber Well	14.5	28	Immature	Much more homogeneous than A6 to west. Pocket of quaking aspen in the far east leg - NCT also runs through the east leg.  More cherry in the southwest.  OPIC - FMD: STAND WAS CUT IN 1989. VERY NICE REGEN ABOUT 2 - 4 INCHES IN DIAMETER.

S t	Gaylord	d Mgt. Unit		Report 7	– Forested	I Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
60	4199 - Other Mixed Upland Deciduous	Sapling Well	4.7	18	Immature	This stand is now fully regenerating, heavy to beech. Despite the prominence of beech, there is consistent diversity throughout the stand. Few pin cherry also present, as well as basswood and striped maple in the canopy.  BBD present. West draw is thick to cherry. Most paper birch volume is in the south half of the stand. Few aspen clones; couple residual super-canopy trees. I am unable to locate a sale folder for this stand, so it's difficult to say for certain why the regeneration happened the way it did.  OPIC - FMD: STAND WAS CLEARCUT IN 1999 WITH A MANAGEMENT OBJECTIVE OF ASPEN. THE DESIRED NATURAL REGENERATION JUST DID NOT HAPPEN. IN 2002 AN FTP WAS SUBMITTED TO PLANT THIS STAND TO SPRUCE BUT THE FTP WAS NOT APPROVED. DUE TO THE HIGH VISIBILITY OF THIS STAND AND THE LACK OF NATURAL REGENERATION, I THOUGHT THAT WE SHOULD PLANT THIS BACK TO A FULLY STOCKED STAND. MY RECOMMENDATION WAS TO PLANT RED PINE. WILDLIFE DIVISION LOOKED AT THE SITE PRIOR TO THE COMPARTMENT REVIEW AND FOUND A LARGE AMOUNT OF BLACK BERRY BRUSH. THEY WOULD PREFER THAT THE STAND NOT BE PLANTED TO PINE. THIS DECISION TO WITHDRAW THE PLANTING PRESCRIPTION WAS AGREED TO AT THE REVIEW.
61	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	36.4	100	81-110	Lesser quality stand than the surrounding hardwood stands. Lots of multi-stemmed, lesser quality trees. Trace amounts of basswood and white ash. Paper birch is confined to the southernmost acreage, especially southwest. Nice quality, too-holding very well. EAB, BBD present. Quite a lot of mortality in the beech (thus 50-75% closure), also beech snap.  Topography sharply undulates with lots of parallel ridges.
62	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	29.1	77	81-110	Few pole-sized serviceberry and striped maple. Trace amounts of black cherry, bigtooth aspen, and hemlock in the subcanopy in negligible amounts. Bigtooth aspen occupies the southwest leg and steepest slopes (more or less pole sized) while the stand transitions to more log-sized red maple and beech on the north-facing slopes, eventually picking up sugar maple towards the east. Regeneration varies greatly. More yellow birch in the east, more xl red maple too. More workable ground in the east half, also better quality, single stem stock in the easternmost portion of the stand.BA ranges from 60-130, 94 average, 90 mode. Aspen occupies west and south slopes; red maple, beech on east and north slopes (picking up sugar maple and yellow birch, few residual/declining bta further east). OPIC - FMD: THIS STAND IN MY OPINION OCCUPIES TERRAIN THAT IS SO STEEP IT SHOULD NOT BE MANAGED. [IN 1996] IT WAS PRESCRIBED AND THE AJACENT TROUT CREEK CONDO OWNERS RAISED A LETTER WRITING CAMPAIGN TO HAVE THE SALE STOPPED. IT IS NICE ASPEN BUT THERE IS LITTLE DOUBT THAT SEVERE EROSION WOULD OCCUR FROM OPERATING ON THESE SLOPES.

S t	Gaylord	Gaylord Mgt. Unit			<ul><li>Forested</li></ul>	Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
63	4114 - Beech, Hemlock	Sapling Medium	15.1	18	Immature	Cut two entries ago as Ram Tough Hardwood, 52-004-98-01(?). No cruise data available. Trace amounts of white ash scattered. Black and pin cherry present. The stand is dominated by beech with a lesser amount of bigtooth aspen. The mixed hardwood is limited within the thickets; most hardwood (especially the birch) is regenerating in the skid trails where the soils have been scarified and competition is minimal. Small inclusion of pole/log in the south.Completely covered in snow, so understory composition and density are not well known. There were trace amounts of mullein and thistle in the south landing.  OPIC - FMD: STAND WAS CLEARCUT IN 1999 WITH THE PRESUMED INTENT TO EXPAND THE SEMI-OPEN CHARACTER OF THE PARENT STAND WHICH WAS AN "M5". BASED ON THE REGENERATION RESULTS I WOULD SAY THIS GOAL WAS ACCOMPLISHED.
64	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	2.7	105	81-110	Stand was thinned as part of Ram Tough Hardwood, 52-004-98-01, then regen gaps were created and planted with oak acorns in 2000. A 60 acre parcel including the majority of the Oak planting FTP were subsequently sold.  EAB and BBD affecting stand. Lesser quality hardwood with potential. Regen gaps were not productive at adding diversity. I did not see any oaks, but I wasn't specifically looking for them. OPIC - FMD: THIS STAND WAS THINNED IN 1999. AREAS OF THE POOREST QUALITY WERE DEVELOPED AS LARGE REGEN HOLES IN AN EFFORT TO ESTABLISH A NEW STAND OF BETTER QUALITY. ACORNS WERE THEN MANUALLY PLANTED IN THE REGEN HOLES IN 2000 TO TRY AND ADD SOME DIVERSITY TO THE STAND. ACTUALLY THE TREATMENTS TURNED OUT QUITE WELL ALTHOUGH IT IS TOO EARLY TO TELL IF ANY OF THE OAK HAS TAKEN.
65	4110 - Sugar Maple Association	Sawtimber Well	18.4	94	81-110	Stand was thinned as Chadderdon Hardwood (sale number and date not available), 2001 according to OI.Portions of the stand could be thinned - basal area ranges from 70-130, lower basal area in the north (also the most prevalence of beech). BA averages 101, though the mode is 130. QD reflects basal area around 117 sqft. EAB present, but not all ash are affected. BBD is pretty rampant. Lecanium Scale present. NCT runs through part of the stand. Previously thinned; lots of beech mortality. Declining black cherry. Thickets of beech regeneration, also a few dense sapling sugar maple and striped maple pockets. Really good, consistently medium to high regeneration throughout stand, it's just not all desirable - AB, WA, striped maple. Trace amounts of red maple (log). OPIC - FMD: STAND WAS LAST THINNED IN 2001. IT WAS PREVIOUSLY THINNED IN 1986. THIS IS A VERY NICE STAND WITH A HIGH PROPORTION OF SINGLE STEM SUGAR MAPLE LOGS. SHOULD BE READY TO THIN AGAIN IN TEN YEARS.
66	42110 - Planted Red Pine	Sawtimber Well	17.7	60	111-140	Second thinning in 2015 - 52-119-09-01 - Nubs Pine. Inclusion of hardwood in the far west and se corner. Edge hardwood inclusion is variable. NCT runs through stand.

s t	Gaylord	l Mgt. Unit		Report 7	– Forested	Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
67	4119 - Mixed Northern Hardwoods	Sawtimber Well	26.3	95	81-110	Upland stand with some seeps in the north (yellow birch occurrences). EAB, BBD present. North third is lesser quality, multi-stemmed, then transitioning to sugar maple, basswood, white ash, beech in the middle, and finally down to beech and white ash in the south, picking up more basswood in the southernmost portion of the stand. The middle portion could be managed for good hardwood, otherwise the prominence of infected beech to the south would require other attention. Trace amounts of red maple (P/L), red oak (just one), and ironwood (L/P) in the canopy.  OPIC - FMD: THIS STAND WAS NOT THINNED WHEN STAND #70 TO THE EAST WAS. THIS STAND HAS MORE OPEN GROWN WOLFY BEECH IN IT. THERE IS ALSO A WELL DEVELOPED HARDWOOD UNDERSTORY IN THIS STAND. NEXT TIME STAND #70 IS TREATED THIS STAND COULD BE THINNED TOO.
68	4130 - Aspen	Poletimber Well	1.7	29	Immature	Miscellaneous hardwood (bw, sm, pb) on north edge adjacent to red pine plantation. Couple pole sugar maple on south edge. OPIC - FMD: THE EAST THIRD OF THE STAND IS ACTUALLY HARDWOOD REGEN. NO HISTORY ON THIS STAND. CAN ONLY ASSUME IT ORIGINATED DURING A PREVIOUS HARDWOOD THINNING OPERATION OF ONE OF THE ADJACENT STANDS.
69	4110 - Sugar Maple Association	Poletimber Medium	7.4	23	Immature	Multi-stemmed, marginal quality sapling/pole stand. Sapling dominated in the west quarter, pole dominated in the east with lots of sapling volunteers.  OPIC - FMD: ACCORDING TO OLDER AERIALS THIS HAS ALWAYS BEEN A NON-STOCKED STAND. IT IS SLOWLY FILLING IN TO HARDWOODS.
70	4110 - Sugar Maple Association	Sawtimber Well	104.0	91	81-110	This stand has been nominated as a potential candidate for a new MSU research study on hardwood regeneration, 3/9/16. Basal areas are variable, ranging from 50-140; 85 ave, 90 mode. Southwest corner is dominated by P/S ironwood (with some white ash), transitioning from red pine plantation. Full beech regeneration in the south with striped maple and sugar maple. Snow-off conditions might produce more ash/beech regen. Canopy beech is clumpy, white ash and basswood are consistent throughout. Yellow birch and red maple along western edge of the stand. One black cherry snag; occasional XL sm. EAB in some, not all, ash. BBD throughout. OPIC - FMD: STAND WAS SELECTIVELY THINNED DURING THE PERIOD OF 1999 - 2002. A PREVIOUS TSI THINNING TOOK PLACE IN 1978.
71	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	4.0	60	81-110	Dead white ash L/P - EAB. "Failed" portion of red pine plantation with a multi-stemmed sugar maple component. Red pine basal areas range from 0-140; sugar maple from 10-70. Total range in basal area is 70-140, averaging 107.  OPIC - FMD: THIS PORTION OF A LARGER PINE PLANTATION HAS A MUCH LOWER STOCKING OF PINE. ALSO HAS SOME POOR QUALITY HARDWOODS MIXED IN. WHEN THE SURROUNDING PINE IS THINNED THIS AREA SHOULD BE LEFT OUT OF THE SALE AREA.

s t	Gaylor	Gaylord Mgt. Unit			- Forested	Stands Compartment: 115 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
72	42110 - Planted Red Pine	Sawtimber Well	58.4	60	111-140	Stand was third row thinned in 1998 and marked in 2009 (cut 2015) 52-119-09-01 - Nubs Pine  Nice red pine. Some limby, but good quality. Much denser beech regeneration in north half and southwest quarter of the stand.  Dense sugar maple in s/sw corner. Few pockets of low density beech saplings, but overall medium stocking. Few scattered dead ash. Trace black cherry in southeast. BAs vary 90-130 but fairly consistent around 110.
73	4110 - Sugar Maple Association	Sawtimber Well	4.6	86	81-110	Chadderdon Road runs through stand. Quite a few XL trees on edge of road. Inventory was taken from the road. Southern couple acres should be managed with the adjacent compartment, otherwise it's unrealistic to run the blue line and manage such a narrow strip of trees with low volumes considering the road and safety concerns along it.  OPIC - FMD: THIS STAND IS AN EXTENTION OF STAND #10 FROM COMPARTMENT #114 TO THE SOUTH. MANAGE ALONG WITH THAT STAND.
74	4139 - Aspen, Mixed Deciduous	Poletimber Well	5.4	90	111-140	*Double-check stand boundaries. They were drawn based on imagery while the stand had been broken out during field inventory. Northerly-facing slope. BBD present. Not the best terrain for management; fairly steep.
75	4110 - Sugar Maple Association	Sawtimber Well	35.0	89	81-110	This stand has been nominated as a potential candidate for a new MSU research study on hardwood regeneration, 3/9/16. Trace XL sugar maple. Pockets of dense beech regeneration; pockets of sugar maple, also of striped maple. White ash regeneration is clumpy and not consistent. 1 XL bta. Basal areas range from 50-130, 90 average.  EAB and BBD affecting stand.  1/2 ac regeneration gap in the southeast corner includes: 100% closure, 10-20' saplings, 1-3" dbh.  Ironwood 30%, Bigtooth Aspen 30%, Striped Maple 20%, White Ash 15%, Sugar Maple 5%, and trace amounts of black cherry and beech in the canopy.  OPIC - FMD: STAND WAS SELECTIVELY THINNED DURING 2002. A FEW RATHER LARGE REGEN HOLES WERE PUT IN ALONG THE EDGE OF STAND #76 TO ENCOURAGE ASPEN REGEN. A PREVIOUS TSI THINNING TOOK PLACE IN 1978.
76	4130 - Aspen	Poletimber Well	35.8	39	Unspecified	Multi-stemmed red maple, black cherry, some sugar maple, and basswood.  One nice 26" hemlock in the northeast, great crown. Black knot, EAB, BBD.  Larger diameters, more hardwood along eastern edge. Pockets throughout the stand of larger (log-dominated) timber. Band of quaking aspen from the south-center moving north. More beech regeneration in the west half; areas with higher ironwood and sugar maple regeneration.  OPIC - FMD: STAND WAS CUT IN 1978 AND THEN MANUALLY TSI'D IN 1979. CLOSE TO THE ROAD SOME HARDWOOD RESIDUAL WAS LEFT STANDING FOR VISUAL CONCERNS.
77	4110 - Sugar Maple Association	Poletimber Well	2.0	121	51-80	Surprisingly variable stand. Could go with log-sized. Multi- stemmed hardwood, appears 2-aged, but also has uneven-aged characteristics. Small acreage with significant variability.

S t a n d	Gaylord Mgt. Unit			Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 115 Year of Entry: 2018
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
82	4112 - Maple, Beech, Cherry Association	Poletimber Well	16.7	100	111-140	BBD present, but most beech is still salvageable. It is my presumption that the beech regeneration is much higher (H or F), but with snow-on conditions, it's roughly 50%. Almost exclusively beech regeneration except for one small pocket of striped maple. White ash logs in southwest draw; couple of sugar maple logs and more bta there too. Nicer quality red maple than adjacent stand 61. Basal area hovers around 130-140. Stand returns to more variable, multi-stemmed lesser quality stock in south tip with a couple XL/L BTA.



Stand	Cover Type	Acres	Managed Site	General Comments:
14	320 - Upland Shrub	1.2	No	Thistle and mullein also present. OPIC - FMD: THIS WILL MAKE A NICE LANDING SITE IF THE SURROUNDING TIMBER IS HARVESTED.
21	122 - Road/Parking Lot	1.1	No	Road/trail intersection. Few black cherry, ironwood, and sugar maple of various sizes (mostly encroaching saplings, except cherry - log).
23	320 - Upland Shrub	1.8	No	Trail runs through stand to southeast - vehicles are going around a berm to gain interior access to adjacent hardwood stand.  Black cherry present in L/P/S. Encroaching hardwood, some dead elm. One dead raccoon.  OPIC - FMD: QUITE AN OPEN STAND. PRIMARILY SOME VERY POOR FORMED CHERRY BUT HARDWOOD SAPPLINGS ARE SEEDING IN.
28	320 - Upland Shrub	7.5	No	Multistemmed RM, BC of various size classes. OPIC - FMD: SOME CHERRY BRUSH BUT ALSO AN OCCASSIONAL OPEN GROWN HARDWOOD.
32	320 - Upland Shrub	5.2	No	A lot of sugar maple regenerating. Very neat opening. Heavy browsing on the sumac - there are a log of stems <2' that appear to have been browsed. Potential trespass on west edge (cultivation, gate), but the projected property boundary seems to been off from historical evidence.  OPIC - FMD: NATURAL OPENING VERY SIMILAR TO STAND #28 ON THE NORTH SIDE OF THE CREEK.
78	3303 - Mixed Low Density Trees	1.9	No	Knapweed likely, probably more raspberry under the snow. Road cuts through northwest portion of stand. BC - SPL, Scotch Pine - PS. Other various hardwood poles and seedlings. OPIC - FMD: STAND IS SLOWLY FILLING IN WITH SCATTERED HARDWOOD AND PINE. THERE IS A SINGLE ROW OF MATURE RED PINE ALONG THE COUNTY ROAD.
80	122 - Road/Parking Lot	3.7	No	Junction of Brutus and Pleasantview Roads. Scotch pine encroaches on western edge of Pleasantview. Mixed deciduous/coniferous of various classes on south edge of Brutus road and along road edges. Likely mowed from adjacent landowner, too.
400	3102 - Grass	29.3	No	OPIC - FMD: OVERHEAD POWERLINE RIGHT OF WAY.
401	3102 - Grass	0.7	No	OPIC - FMD: SMALL NATURAL OPENING THAT HAS BEEN USED IN THE PAST AS A LOG LANDING.
402	3102 - Grass	2.0	No	Encroaching deciduous on the edges, otherwise the stand appears to be sparsely vegetated.  OPIC - FMD: SMALL NATURAL OPENING THAT HAS BEEN USED IN THE PAST AS A LOG LANDING.
403	3102 - Grass	1.3	No	Road bisects stand. Encroachment on the edges from hwd, few jack pine seeding in. OPIC - FMD: SMALL NATURAL OPENING THAT WAS LAST MAINTAINED IN 1978 BY APPLYING TORDON. UNLESS WILDLIFE INDICATES OTHERWISE I WOULD ASSUME THIS OPENING HAS BEEN ABANDONED AND CAN BE CONSIDERED A NATURAL OPENING.

Gaylord Mgt. Unit

### Report 8 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	General Comments:
404	3102 - Grass	14.0	No	OPIC - FMD: OVERHEAD POWERLINE RIGHT OF WAY.