



Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 52114

Entry Year 2018

Acreage: 879

County Emmet

Management Area: Emmet Moraines

Revision Date: 2016-05-13

Stand Examiner: Donald Stacks

Legal Description:

T35N R05W, Sections 1 - 3, 10, 11.

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:

Blue Lakes sands on mostly hilly terrain. Some very steep slopes are present.

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

The surrounding area is highly developed with commercial businesses and private residential homes.

Unique Natural Features:

English sundew, Blunt-lobed woodsia, and Small round-leaved orchis have been observed.

Archeological, Historical, and Cultural Features:

None listed.

Special Management Designations or Considerations:

The area around the compartment is very highly developed.

Watershed and Fisheries Considerations:

A small portion of this compartment is in the Central Lake Michigan Fisheries Management Unit. Best management practices should be followed to prevent erosion and sedimentation to any intermittent drainages.

Wildlife Habitat Considerations:

Featured species in this compartment are turkey, deer, and some grouse areas. 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

Surface sediments consist of coarse-textured glacial till, glacial outwash sand and gravel, and postglacial alluvium. The glacial drift thickness varies between 200 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. Former sand/gravel pits may be located in sections 10 and 11. The nearest active production is more than three miles to the southeast. Sand and gravel potential is good within the compartment. The nearest oil and gas production, the Antrim Shale gas play, is located 20 miles to the south. State land in the compartment 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:

Numerous county roads, seasonal county roads, and forest trail roads run through, and adjacent to the compartment.

Survey Needs:

Most survey corners are present

Recreational Facilities and Opportunities:

A designated snowmobile trail and the North Country Pathway exist within the compartment.

Fire Protection:

Harbor Springs VFD is located about six miles to the west of the compartment. Pellston Field Office is located about 13 miles to the north for fire response.

Additional Compartment Information:

Beech Bark Disease and Emerald Ash Borer are impacting all northern hardwood stands within the compartment and are a major consideration for current treatment plans. Because of this forest health issue, some of the treatments have been moved up to 2017 entry year.

The following reports from the Inventory are attached:

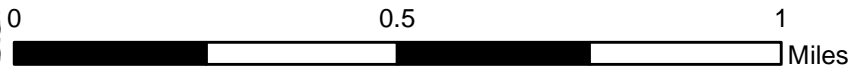
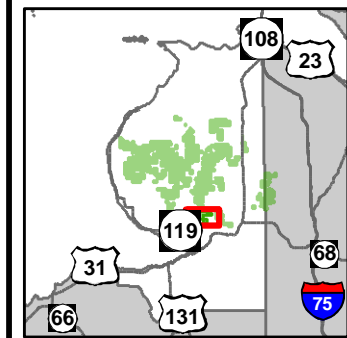
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

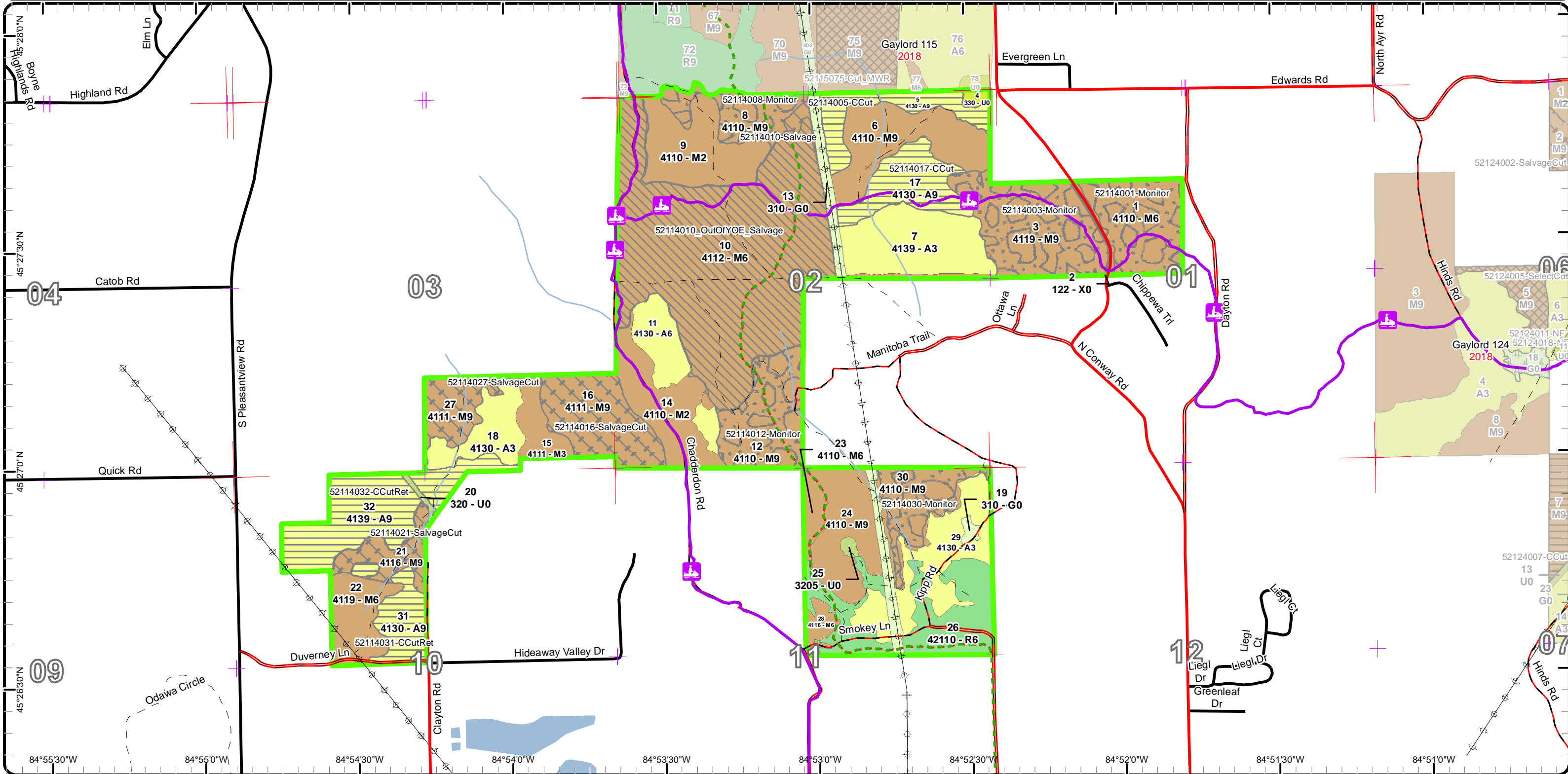
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 114
 T35N,R05W, Sec. 1-3, 10-11
 County: Emmet
 Unit: Gaylord
 Mgmt Area: Emmet Moraines
 YOE: 2018
 Acres: 879 GIS Calculated
 Examiner: Donald Stacks
 Map Revised: 8/26/2016
 Map Phase: Post-Review

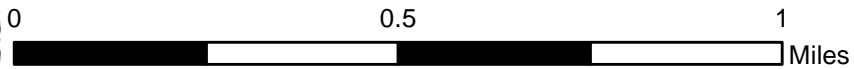
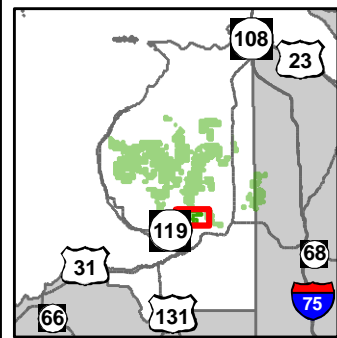


- Miris Corners
- + Remonumented Section Corners
- Snowmobile Trails
- - - Designated Hiking Trails
- - - Designated Bicycle Trails
- - - Designated Snowmobile Trails
- County Paved Roads
- Paved Roads
- - - County Gravel Roads
- - - Poor Dirt Roads
- - - County Poor Dirt Roads
- Rivers
- Powerline
- Compartment Boundary
- Clearcut (w/Reserves)
- Salvage
- Regeneration Survey
- Other Harvest - See Comments
- 411 - Northern Hardwood
- 413 - Aspen Types
- 421 - Planted Pines
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- Lakes

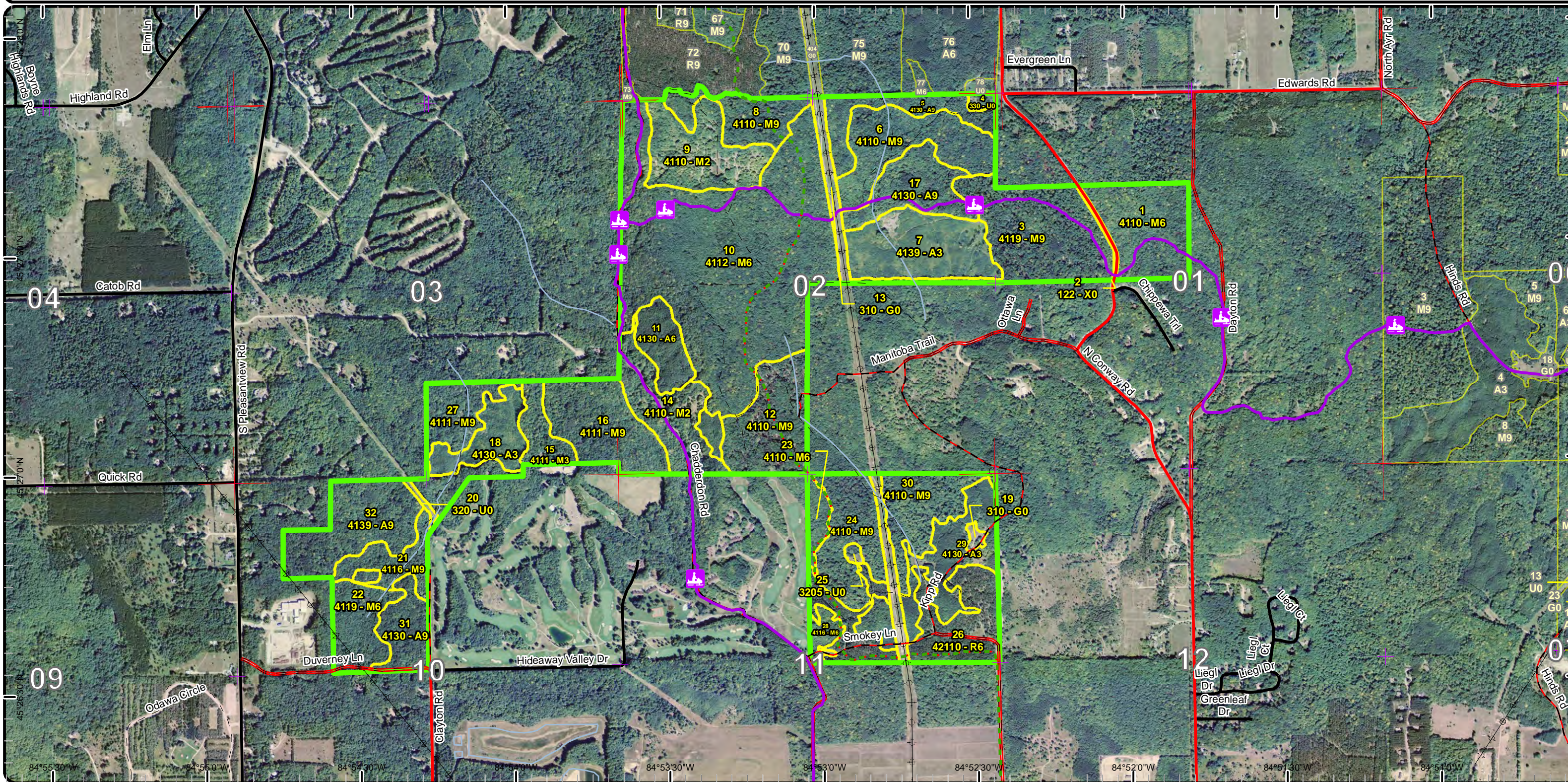


Stand Boundary Map

Compartment: 114
 T35N,R05W, Sec. 1-3, 10-11
 County: Emmet
 Unit: Gaylord
 Mgmt Area: Emmet Moraines
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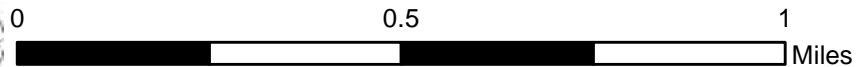
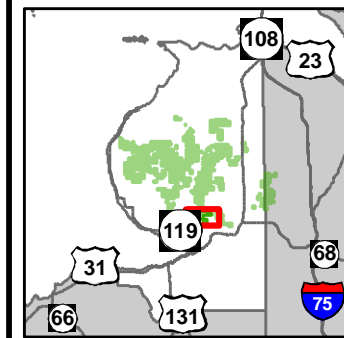


- Miris Corners
 - + Remonumented Section Corners
 - Snowmobile Trails
 - Designated Hiking Trails
 - - Designated Bicycle Trails
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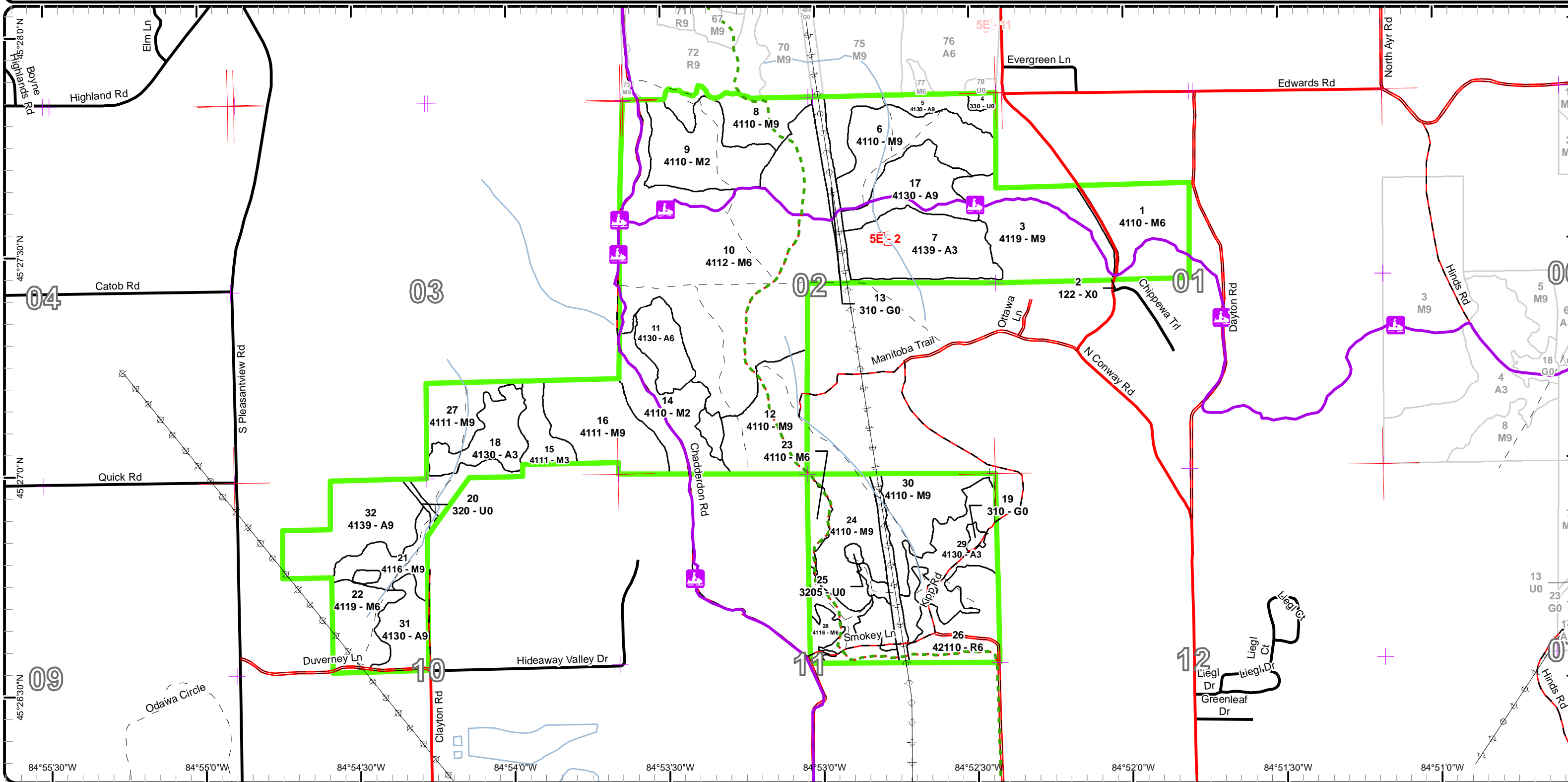


Special Conservation Areas & Site Conditions Map

Compartment: 114
 T35N,R05W, Sec. 1-3, 10-11
 County: Emmet
 Unit: Gaylord
 Mgmt Area: Emmet Moraines
 YOE: 2018
 Acres: 879 GIS Calculated
 Examiner: Donald Stacks
 Map Revised: 8/26/2016
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- Miris Corners
- + Remonumented Section Corners
- Snowmobile Trails
- - Designated Hiking Trails
- - Designated Bicycle Trails
- Designated Snowmobile Trails
- County Paved Roads
- Paved Roads
- County Gravel Roads
- - Poor Dirt Roads
- - County Poor Dirt Roads
- Rivers
- Powerline
- Compartment Boundary
- - Unavailable
- 5E: Long-Term Retention
- Stand Boundaries



84°55'30"W 84°55'0"W 84°54'30"W 84°54'0"W 84°53'30"W 84°53'0"W 84°52'30"W 84°52'0"W 84°51'30"W 84°51'0"W



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	59	0	34	19	0	0	0	44	65	0	0	0	0	0	0	0	0	220
Herbaceous Openland	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Northern Hardwood	0	0	0	0	76	0	0	6	35	256	0	0	0	0	0	0	0	218	591
Red Pine	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	44
Upland Shrub	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	26	59	0	34	95	0	45	6	79	321	0	0	0	0	0	0	0	218	881



Report 2 – Treatment Summary

Gaylord Mgt. Unit

Year of Entry: 2018

Compartment 114

Total Compartment Acres: 879

Acres of Harvest

Commercial Harvest - 173
 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	108	0	0	0	0	0	0	0	0	108
Northern Hardwood	0	0	0	0	0	0	0	65	0	65
Total	108	0	0	0	0	0	0	65	0	173

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	173	0	0	0	0	0	341	0	0	514
Next Step	0	0	0	0	0	0	173	0	0	173
Total	173	0	0	0	0	0	514	0	0	687



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
1	52114001- Monitor	34.4	4110 - Sugar Maple Association	Poletimber Well	81	51-80	Monitoring	Natural Regen (Intermediate)	4110 - Sugar Maple Association	Even-Aged	Field Boundary

Habitat Cut: No**Site Condition:**Prescription Monitor hardwood regen.Specs:Next StepTreatments:Acceptable A mix of northern hardwood species.Regen:Other Percent to Treat = 100%Comment:Proposed Start Date: 10/01/2020

3	52114003- Monitor	51.3	4119 - Mixed Northern Hardwoods	Sawtimber Well	82	81-110	Monitoring	Natural Regen (Re-Inventory)	411 - Northern Hardwood	Uneven- Aged	Field Boundary
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Habitat Cut: No**Site Condition:**Prescription Monitor regen.Specs:Next StepTreatments:Acceptable Mixed northern hardwood species.Regen:OtherComment:Proposed Start Date: 10/01/2017

5	52114005- CCut	18.6	4130 - Aspen	Sawtimber Well	76	111- 140	Harvest	Clearcut	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**Prescription Final harvest everything 2" and larger at DBH except incidental hemlock, white pine, and oak. No un-harvested retention islands will be leftSpecs: because of the relatively small stand acreage. Mark and leave intact about 3 - 5 trees to serve as grouse drumming logs.Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable A mix of aspen/northern hardwoods will be acceptable regen.Regen:OtherComment:Proposed Start Date: 10/01/2017

8	52114008- Monitor	20.1	4110 - Sugar Maple Association	Sawtimber Well	91	1-50	Monitoring	Natural Regen (Intermediate)	411 - Northern Hardwood	Uneven- Aged	Field Boundary
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Habitat Cut: No**Site Condition:**Prescription Monitor hardwood regen, especially beech. Possible treatments to discourage excessive beech regen may be needed.Specs:Next StepTreatments:Acceptable A mix of northern hardwood.Regen:OtherComment:Proposed Start Date: 10/01/2020



Stand Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
10 52114010-Monitor	177.8	4112 - Maple, Beech, Cherry Association	Poletimber Well	82	51-80	Monitoring	Natural Regen (Re-Inventory)	4110 - Sugar Maple Association	Even-Aged	Field Boundary

Habitat Cut: No**Site Condition:**

Prescription MONITOR HARDWOOD REGEN NEXT YOE.

Specs:

Next Step

Treatments:

Acceptable A MIX OF HARDWOOD SPECIES. EXCESSIVE BEECH/ASH REGEN MAY REQUIRE SOME KIND OF FUTURE TREATMENT.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2025

12 52114012-Monitor	35.2	4110 - Sugar Maple Association	Sawtimber Well	91	51-80	Monitoring	Natural Regen (Intermediate)	411 - Northern Hardwood	Uneven-Aged	Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Monitor northern hardwood regen, especially beech. Possible treatments to discourage excessive beech regen may be needed.

Specs:

Next Step

Treatments:

Acceptable A mix of northern hardwood species.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2019

16 52114016-SalvageCut	35.0	4111 - S.Maple, Hard Mast Association	Sawtimber Well	91	111-140	Harvest	Salvage	4116 - Mixed N. Hardwood - Aspen	Uneven-Aged	Field Boundary - Ready for VMS
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Habitat Cut: No**Site Condition:**

Prescription SALVAGE ASH/BEECH ASAP, OUT OF YOE. MOVE TREATMENT UP TO 2017 ENTRY YEAR. CUT ALL BTA. ALSO MARK TO RELEASE

Specs: SUGAR MAPLE CROP TREES WHERE NEEDED. POST-HARVEST BA WILL BE LOWER IN AREAS OF DENSE ASH/BEECH. ACCESS WILL HAVE TO BE GAINED FROM THE WEST THROUGH THE A3 STAND USING SKID ROADS FROM THAT TIMBERSALE. TERRAIN WILL MAKE HARVESTING DIFFICULT IN PLACES. HARVEST WITH STAND 27 TO THE WEST.

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable A mix of northern hardwood and BTA.

Regen:

Other

Comment: MONITOR BEECH REGEN CLOSELY. POSSIBLE TREATMENTS TO DISCOURAGE EXCESSIVE BEECH REGEN MAY BE NEEDED.

Proposed Start Date: 10/01/2016



Stand Name	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
17	52114017-CCut	24.9	4130 - Aspen	Sawtimber Well	76	111-140	Harvest	Clearcut	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Final harvest everything 2" and larger at DBH except incidental hemlock, white pine, and oak. No un-harvested retention islands will be left because of the relatively small stand acreage. Mark and leave intact about 3 - 5 trees to serve as grouse drumming logs. Snowmobile trail will not be used for any harvest activities during the active snowmobile season. Post logging activity signs on snowmobile trail during harvest. If the snowmobile trail is used for skidding or hauling during the non-winter months, the trail must be maintained on a regular basis and suitable for grooming by December 1. Stumps should be cut flush with the ground for trees harvested within 10' of the designated snowmobile trail.

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

Acceptable A mix of aspen and northern hardwood.
Regen:

Other
Comment:

Proposed Start Date: 10/01/2017

21	52114021-SalvageCut	13.7	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	76	81-110	Harvest	Salvage	4116 - Mixed N. Hardwood - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription CUT ALL ASH AND BEECH, EXCEPT THOSE MARKED WITH A GREEN BAND OF PAINT. ALSO CUT ALL BIGTOOTH ASPEN.
Specs: PRESCRIBED FOR 2017 ENTRY YEAR.

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable A mix of northern hardwood and aspen.
Regen:

Other ASH/BEECH SALVAGE IS PRESCRIBED FOR 2017 ENTRY YEAR. SALVAGE HARVEST WILL RESULT IN A SIGNIFICANTLY LOWER POST-HARVEST BA. MONITOR REGEN AFTER HARVEST. POST-HARVEST TREATMENTS TO DISCOURAGE EXCESSIVE BEECH REGEN MAY BE NEEDED. INFORM THE LOCAL RESIDENTS AS TO THE NEED FOR THE TIMBER HARVEST IN THIS DEVELOPED AREA.
Comment:

Proposed Start Date: 10/01/2016

27	52114027-SalvageCut	16.3	4111 - S.Maple, Hard Mast Association	Sawtimber Well	91	111-140	Harvest	Salvage	4116 - Mixed N. Hardwood - Aspen	Uneven-Aged	Field Boundary - Ready for VMS
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Habitat Cut: No**Site Condition:**

Prescription SALVAGE ASH/BEECH ASAP, OUT OF YO. HARVEST IN 2017 ENTRY YEAR. CUT ALL BTA. ALSO MARK TO RELEASE SUGAR MAPLE CROP TREES WHERE NEEDED. POST-HARVEST BA WILL BE LOWER IN AREAS OF DENSE ASH/BEECH. TERRAIN WILL MAKE HARVESTING DIFFICULT IN PLACES. HARVEST WITH STAND 16 TO THE EAST.
Specs:

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable A mix of northern hardwood and BTA.
Regen:

Other MONITOR BEECH REGEN CLOSELY AFTER HARVEST. POSSIBLE TREATMENTS TO DISCOURAGE EXCESSIVE BEECH REGEN MAY BE NEEDED.
Comment:

Proposed Start Date: 10/01/2016



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
30	52114030- Monitor	22.1	4110 - Sugar Maple Association	Sawtimber Well	91	51-80	Monitoring	Natural Regen (Intermediate)	4110 - Sugar Maple Association	Even-Aged	Field Boundary

Habitat Cut: No**Site Condition:**Prescription Monitor hardwood regen.Specs:Next StepTreatments:Acceptable A mix of northern hardwood species.Regen:Other Percent to Treat = 100%Comment:Proposed Start Date: 10/01/2020

31	52114031- CCutRet	17.9	4130 - Aspen	Sawtimber Well	81	141- 170	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription MANAGE STAND FOR ASPEN. FINAL HARVEST IN 2017 YOЕ BECAUSE OF THE DETERIORATING CONDITION OF THE BIG-TOOTHED ASPEN, BEECH, AND WHITE ASH. CUT ALL TREES 2" AND LARGER AT DBH, EXCEPT INCIDENTAL HEMLOCK, WHITE PINE, OAK, AND BLACK CHERRY. NO UN-HARVESTED RETENTION ISLANDS WILL BE LEFT BECAUSE OF SMALL SALE ACREAGE AND DECLINING CONDITION OF ASPEN AND BEECH. NO SEASONAL CUTTING RESTRICTIONS WILL NEED TO BE APPLIED. HARVEST STAND 32 TO THE NORTH WITH THIS STAND.

Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable BIG-TOOTHED ASPEN AND NORTHERN HARDWOOD.Regen:Other INFORM AND EDUCATE THE LOCAL RESIDENTS AS TO THE NEED FOR THE TIMBER HARVEST IN THIS DEVELOPED AREA.Comment:Proposed Start Date: 10/01/2016

32	52114032- CCutRet	46.7	4139 - Aspen, Mixed Deciduous	Sawtimber Well	86	141- 170	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription MANAGE STAND FOR ASPEN. BTA SHOWING LOSS OF VIGOR. FINAL HARVEST WILL BE MOVED UP TO THE 2017 ENTRY YEAR.

Specs: CUT ALL TREES 2" AND LARGER AT DBH, EXCEPT INCIDENTAL HEMLOCK, WHITE PINE, OAK, AND BLACK CHERRY. NO UN-HARVESTED RETENTION ISLANDS WILL BE LEFT BECAUSE OF SMALLER SALE ACREAGE AND DECLINING CONDITION OF ASPEN AND BEECH. NO SEASONAL CUTTING RESTRICTIONS WILL NEED TO BE APPLIED. HARVEST STAND 31 TO THE SOUTH WITH THIS STAND.

Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable A MIX OF BIG-TOOTHED ASPEN AND NORTHERN HARDWOOD.Regen:Other INFORM AND EDUCATE THE PUBLIC AS TO THE NEED FOR THE TIMBER HARVEST IN THIS DEVELOPED AREA.Comment:Proposed Start Date: 10/01/2016

**Total Treatment
Acreage Proposed: 514.0**

Report 4 – Site Conditions

Gaylord Mgt. Unit
Donald Stacks : Examiner

Compartment: 114
Year of Entry: 2018

Availability for Management

Total	Acres	Acres Avail	Acres
Acres	Available	<i>With Condition</i>	Not Available

Dominant Site Conditions

5E

220	219	0	1	Aspen	1
19	19	0	0	Herbaceous Openland	
2	2	0	0	Low-Density Trees	
590	590	0	0	Northern Hardwood	
45	45	0	0	Red Pine	
3	3	0	0	Upland Shrub	
2	2	0	0	Urban	
878	878		1	Total Forested Acres	1
	100%		0%	Relative Percent	

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
2	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 5 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

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

Conservation Area	Type	Description
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4110 - Sugar Maple Association	Poletimber Well	35.4	81	51-80	N. HARDWOOD STAND, MOSTLY SUGAR MAPLE AND BASSWOOD POLETIMBER WITH LESSER AMOUNTS OF SAWTIMBER PRESENT, ON ROLLING HILLS. STAND RECEIVED ASH/BEECH SALVAGE HARVEST IN 2015, RESULTING IN SLIGHTLY LOWER BA (68 SQ.FT.) AT PRESENT. TREATMENT WILL BE CLOSED WHEN BERMS ARE PUT IN PLACE IN 2016. POSSIBLE TREATMENT IN ABOUT 20 YEARS. SNOWMOBILE TRAIL RUNS THRU STAND.
3	4119 - Mixed Northern Hardwoods	Sawtimber Well	54.2	82	81-110	MIXED N. HARDWOOD SAWTIMBER, ON ROLLING HILLS, WITH STEEP SLOPES PRESENT. BA IS PRESENTLY 82SQ.FT. SNOWMOBILE TRAIL RUNS THROUGH THIS STAND. SELECTION HARVEST COMPLETED IN 2013. ASH AND BEECH WERE NOT COMPLETELY SALVAGED DURING THIS HARVEST, BUT A SIGNIFICANT AMOUNT WERE MARKED AND CUT. BEECH DECLINE AND MORTALITY EVIDENT. NOT ENOUGH HEALTHY ASH AND BEECH TO PRESCRIBE AN ADDITIONAL SALVAGE HARVEST. SUGAR MAPLE, BASSWOOD, AND YELLOW BIRCH MAKE UP MOST OF THE STAND NOW. POSSIBLE SELECTION HARVEST IN ABOUT 30 YEARS. CONTINUE TO MONITOR HARDWOOD REGEN. AREAS OF FAIRLY DENSE ASH REGEN ARE PRESENT.
5	4130 - Aspen	Sawtimber Well	18.6	76	111-140	Mixed stand of BTA/QA sawtimber and mixed northern hardwood poletimber. Aspen is showing signs of decline. Manage this stand for aspen, final harvest this YOY before significant aspen mortality occurs. Harvest this stand with stand 17 to the south.
6	4110 - Sugar Maple Association	Sawtimber Well	36.7	82	81-110	MIXED N. HARDWOOD POLETIMBER AND SMALL SAWLOGS. A FEW SCATTERED WHITE ASH, BEECH, RED MAPLE, AND BTA PRESENT. LOWER BA PRESENTLY (90SQ. FT.). LARGE AMOUNTS OF NORTHERN HARDWOOD HAVE BEEN TREATED NEAR THIS STAND IN RECENT YEARS. POSSIBLE TREATMENT IN 10 - 20 YEARS.
7	4139 - Aspen, Mixed Deciduous	Sapling Well	39.3	7	Immature	STAND CONSISTS OF FAIRLY WELL-STOCKED STAND OF BIG-TOOTHED ASPEN AND MIXED NORTHERN HARDWOOD, FROM 2010 FINAL HARVEST. A FEW AREAS OF SPARSE REGEN PRESENT WITHIN THE STAND. 100 NATIVE FRUIT-BEARING SHRUBS WERE PLANTED ON THE EAST EDGE OF THE LANDING BY RGS VOLUNTEERS ON APRIL 15, 2017.
8	4110 - Sugar Maple Association	Sawtimber Well	20.1	91	1-50	STAND CONSISTS OF N. HARDWOODS BOLTWOOD AND SAWTIMBER. A SELECTION HARVEST WAS COMPLETED IN 2015. ALSO, ALL WHITE ASH AND BEECH WERE SALVAGED DURING THIS HARVEST, RESULTING IN A LOWER BA (47 SQ.FT.) PRESENTLY. NORTH COUNTRY PATHWAY RUNS THROUGH STAND.
9	4110 - Sugar Maple Association	Sapling Medium	34.3	37	51-80	POCKETS OF DENSE HARDWOOD REGEN AND OPEN BRUSHY AREAS ON ROLLING HILLS. WILL NEED TO GROW FOR SEVERAL DECADES BEFORE IT REACHES COMMERCIAL SIZE. A FEW APPLE TREES ARE PRESENT. STAND WAS CLEARCUT IN 1980 TO SERVE AS A WINTER FOOD SOURCE FOR DEER.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
10	4112 - Maple, Beech, Cherry Association	Poletimber Well	177.7	82	51-80	STAND CONSISTS OF MOSTLY HARDWOOD POLETIMBER, MOSTLY SUGAR MAPLE, ON ROLLING TERRAIN. ASH/BEECH SALVAGE COMPLETED IN 2016. POST HARVEST BA WILL BE 60 SQ. FT. NORTH COUNTRY PATHWAY AND DESIGNATED SNOWMOBILE TRAIL RUN THROUGH STAND AND TREATMENT AREA.
11	4130 - Aspen	Poletimber Well	18.8	39	51-80	ASPEN POLETIMBER ON SW FACING SLOPE, FROM 1978 FINAL HARVEST. CONTINUE TO MANAGE THIS STAND FOR ASPEN. FINAL HARVEST IN 20 - 30 YEARS.
12	4110 - Sugar Maple Association	Sawtimber Well	35.2	91	51-80	STAND WAS SOUTH UNIT OF NUB'S HARDWOOD, WHICH WAS ORIGINALLY A SELECTION HARVEST, THEN HAD THE ASH AND BEECH SALVAGED AS WELL, EXCEPT FOR SOME AREAS LOCATED ON STEEP SLOPES. SALE WAS COMPLETED IN 2015. LOWER BA PRESENTLY (ABOUT 60 SQ. FT.). NORTH COUNTRY PATHWAY RUNS THROUGH STAND.
14	4110 - Sugar Maple Association	Sapling Medium	29.8	35	Immature	CLUMPS OF SCATTERED DENSE, YOUNG HARDWOOD REGEN ON MOSTLY OPEN, BRUSHY GROUND LOCATED ON STEEP WEST-FACING SLOPE AND PLATEAU. FAIR AMOUNT OF ORV DAMAGE PRESENT FROM YEARS OF OVER-USE.. RDR IS ON FILE FOR THIS STAND.
15	4111 - S.Maple, Hard Mast Association	Sapling Well	11.6	31	1-50	STAND APPEARS TO BE A FORMER UPLAND BRUSH STAND THAT HAS FILLED IN WITH ENCROACHING HARDWOOD SAPS AND SMALL POLETIMBER, MOSTLY SUGAR MAPLE. STAND HAS OLDER, SPARSE HARDWOOD POLETIMBER OVER THE MORE DENSE SAPS. STAND IS ADJACENT TO GOLF COURSE BUILDINGS FROM FORMER TRESPASS, NOW SETTLED, AFTER CLUB BOUGHT ACREAGE FROM STATE OF MICHIGAN IN 2007.
16	4111 - S.Maple, Hard Mast Association	Sawtimber Well	35.3	91	111-140	STAND CONSISTS OF N. HARDWOOD, SAWTIMBER/POLETIMBER, WITH A FEW SCATTERED LARGE B.T. ASPEN PRESENT, ON ROLLING HILLS. PRIVATE HOMES TO NORTH, GOLF COURSE TO SOUTH, CREATING DIFFICULT ACCESS. FAIRLY SIGNIFICANT ASH/BEECH COMPONENT. SOME ASH IS ALREADY DEAD. AREAS OF DENSE SUGAR MAPLE ALSO.
17	4130 - Aspen	Sawtimber Well	24.9	76	111-140	Mixed stand of BTA sawtimber and mixed northern hardwood poletimber. Aspen is showing signs of decline. Manage this stand for aspen, final harvest this YOY before significant aspen mortality occurs. Harvest this stand with stand 5 to the north. Designated snowmobile trail runs through this stand.
18	4130 - Aspen	Sapling Well	19.2	7	Immature	STAND CONSISTS OF A MIX OF BTA AND MIXED NORTHERN HARDWOOD REGEN FROM 2010 FINAL HARVEST. MULTIPLE STEEP SLOPES PRESENT. CLOSE TO LITTLE TRAVERSE GOLF COURSE. CONTINUE TO MANAGE STAND FOR ASPEN. FINAL HARVEST IN 40 - 50 YEARS.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	14.6	76	81-110	STAND CONSISTS OF A MIX OF N. HARDWOOD SAWTIMBER/POLETIMBER, WITH HEAVY CONCENTRATIONS OF BEECH. ASH/BEECH SALVAGE IS PRESCRIBED FOR 2017 ENTRY YEAR. SALVAGE HARVEST WILL RESULT IN A SIGNIFICANTLY LOWER POST-HARVEST BA. INFORM AND EDUCATE THE PUBLIC AS TO THE NEED FOR THE TIMBER HARVEST IN THIS DEVELOPED AREA. MULTIPLE HOMES LOCATED TO THE NORTH AND SOUTH OF STAND ALONG DUVERNEY RD. GOLF COURSE IS LOCATED ADJACENT TO THE EAST, COUNTY TRANSFER STATION TO THE WEST. DISPOSAL OF THIS STAND, LOCATED IN SECTION 10, COULD BE ANOTHER ALTERNATIVE, ALONG WITH PARCELS LOCATED IN SECTION 3 TO THE NORTH, WHICH ARE ADJACENT TO THE GOLF COURSE AND MULTIPLE PRIVATE RESIDENCES. THERE IS ALSO EVIDENCE OF RECREATIONAL ACTIVITIES THROUGHOUT THE STAND, PROBABLY FROM NEARBY NEIGHBORS.
22	4119 - Mixed Northern Hardwoods	Poletimber Well	20.3	71	81-110	Stand consists of a mix of northern hardwood poletimber, mostly sugar maple, red maple, and basswood. Little beech and ash present. Smaller diameters and slightly lower BA presently. With the rest of the adjacent stands in need of treatment, this will be a good stand to hold untreated for about 20 years. There is also a small triangle of mixed northern hardwood and BTA poletimber, adjacent to Pleasantview and Duvernay roads, and the Emmet County transfer station. This small area is unmanageable and a candidate for possible disposal.
23	4110 - Sugar Maple Association	Poletimber Well	6.3	81	81-110	STAND IS A NARROW STRIP OF N. HARDWOOD POLETIMBER/SAWTIMBER LYING BETWEEN GOLF COURSE AND A HARDWOOD STAND THAT WAS HARVESTED IN 2003. EAST EDGE OF STAND IS BORDERED BY NORTH COUNTRY PATHWAY. SALE BOUNDARY FOR ADJACENT STAND WAS LOCATED TO PREVENT LOGGING DAMAGE TO PATHWAY AND TO ALSO ACT AS A BUFFER TO GOLF COURSE. DIAMETERS ARE ALSO SMALLER AND THE BA WAS LOWER IN THIS STAND THAN STAND 24 THAT WAS HARVESTED TO THE EAST. THIS STAND COULD BE TREATED THE NEXT TIME STAND 24 IS TREATED, LEAVE AS IS FOR NOW. MOST OF THE ASH IN THIS STAND IS DEAD OR DYING.
24	4110 - Sugar Maple Association	Sawtimber Well	29.5	91	51-80	NORTHERN HARDWOOD STAND, SELECT HARVEST COMPLETED IN 2003. SOME STEEP SLOPES. PRESENT BA IS ABOUT 83 SQ. FT. LESSER BEECH COMPONENT. MOST OF THE ASH IS DEAD OR DYING. NO SALVAGE REQUIRED. NEXT TREATMENT IN ABOUT 30 YEARS.
26	42110 - Planted Red Pine	Poletimber Well	44.5	55	81-110	RED PINE PLANTATION, MOSTLY POLETIMBER WITH SOME TREES CONVERTING INTO SMALL SAWLOGS. FIRST THINNING WAS COMPLETED 06/ 2009, AND CONSISTED OF REMOVING EVERY THIRD ROW AND MARKING TREES IN THE RESIDUAL TWO ROWS BECAUSE OF HEAVY STOCKING DENSITY, IRREGULAR ROW DIRECTION, AND TOPOGRAPHY. POST-HARVEST BA WAS SLIGHTLY LOWER, (110) BECAUSE OF THIS. POSSIBLE TREATMENT NEXT YOY.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
27	4111 - S.Maple, Hard Mast Association	Sawtimber Well	17.1	91	111-140	STAND CONSISTS OF N. HARDWOOD, SAWTIMBER/POLETIMBER, WITH A FEW SCATTERED LARGE B.T. ASPEN PRESENT, ON ROLLING HILLS. PRIVATE HOMES TO LOCATED TO THE NORTH. FAIRLY SIGNIFICANT ASH/BEECH COMPONENT. SOME ASH IS ALREADY DEAD. AREAS OF DENSE SUGAR MAPLE ALSO.
28	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	5.5	61	1-50	SMALL STAND OF LESSER QUALITY HARDWOOD AND ASPEN ON HIGH RIDGE ADJACENT TO GOLF COURSE. LESSER STOCKED, BA IS 47 SQ. FT. NOT PRACTICAL TO HARVEST. MANAGE THIS STAND FOR HARDWOOD. LET ASPEN FALL OUT.
29	4130 - Aspen	Sapling Well	34.3	28	Immature	STAND CONSISTS OF A MIX OF ASPEN/N. HARDWOOD REGEN FROM 1989 FINAL HARVEST. DECENT QUALITY. CONTINUE TO MANAGE STAND WITH AN ASPEN MO. FINAL HARVEST AGAIN IN ABOUT 20 - 30 YEARS.
30	4110 - Sugar Maple Association	Sawtimber Well	26.1	91	51-80	N. HARDWOOD STAND ON ROLLING HILLS, SOME STEEP. STAND HAD A SELECTION HARVEST COMPLETED IN 2003, AND AN ASH/BEECH SALVAGE IN 2015. LOWER BA PRESENTLY (53SQ. FT.) AREAS OF DENSE HARDWOOD REGEN. SALE IS STILL OPEN PENDING BERM PLACEMENT AND CLEAN-UP. MONITOR HARDWOOD REGEN.
31	4130 - Aspen	Sawtimber Well	17.9	81	141-170	STAND CONSISTS OF MOSTLY BIG-TOOTHED ASPEN SAWTIMBER AND RED MAPLE POLETIMBER/SAWLOGS. LESSER AMOUNTS OF BEECH AND SUGAR MAPLE POLETIMBER/SAWLOGS PRESENT. ASPEN IS SHOWING SIGNS OF DECLINE AND LOSS OF VIGOR. MULTIPLE HOMES ADJACENT TO SOUTH EDGE OF STAND ALONG DUVERNEY RD. GOLF COURSE IS LOCATED ADJACENT TO THE EAST. DISPOSAL OF THIS STAND, LOCATED IN SECTION 10, COULD BE ANOTHER ALTERNATIVE, ALONG WITH PARCELS LOCATED IN SECTION 3 TO THE NORTH, WHICH ARE ADJACENT TO THE GOLF COURSE AND MULTIPLE PRIVATE RESIDENCES. THERE IS ALSO EVIDENCE OF RECREATIONAL ACTIVITIES THROUGHOUT THE STAND, PROBABLY FROM NEARBY NEIGHBORS.
32	4139 - Aspen, Mixed Deciduous	Sawtimber Well	46.7	86	141-170	STAND CONSISTS OF A MIX OF LARGE, MATURE BIG- TOOTHED ASPEN SAWTIMBER AND N. HARDWOOD SAWTIMBER/POLETIMBER. MULTIPLE HOMES ADJACENT TO NORTH OF STAND. GOLF COURSE IS LOCATED ADJACENT TO THE EAST. DISPOSAL OF THIS STAND, LOCATED IN SECTION 10, COULD BE ANOTHER ALTERNATIVE, ALONG WITH PARCELS LOCATED IN SECTION 3 TO THE NORTH, WHICH ARE ADJACENT TO THE GOLF COURSE AND MULTIPLE PRIVATE RESIDENCES. THERE IS ALSO EVIDENCE OF RECREATIONAL ACTIVITIES THROUGHOUT THE STAND, PROBABLY FROM NEARBY NEIGHBORS.



Stand	Cover Type	Acres	Managed Site	General Comments:
2	122 - Road/Parking Lot	1.6	No	N. CONWAY RD. R.O.W. (PAVED)
4	330 - Low-Density Trees	2.0	No	UPLAND BRUSH STAND WITH ONE SMALL ASPEN CLONE IN CENTER AND SCATTERED SPARSE BLACK CHERRY, RED PINE, AND SCOTCH PINE. ADJACENT TO N. CONWAY RD.
13	310 - Herbaceous Openland	17.0	No	UTILITY LINE R.O.W. MOSTLY GRASS WITH SCATTERED SHRUBS.
19	310 - Herbaceous Openland	1.6	No	SMALL GRASS OPENING SURROUNDED BY A3.
20	320 - Upland Shrub	1.4	No	UTILITY LINE R.O.W.
25	3205 - Mixed Upland Shrub	1.2	No	UPLAND SHRUB AND ENCROACHING HARDWOOD SAPS.