



Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 52103

Entry Year 2017

Acreage: 354

County Emmet

Management Area: Emmet Moraines

Revision Date: 2015-05-11

Stand Examiner: Donald Stacks

Legal Description:

T36N R06W Sections 24, 25.

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:

Mostly Blue Lakes sands on the upland, Greenwood peat in the lowland area.

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

Private residences are located on all sides of this compartment.

Unique Natural Features:

Potential occurrences include: Red-shouldered hawk, goshawk, great blue heron rookery, round-leaved orchid, and English sundew.

Archeological, Historical, and Cultural Features:

None listed.

Special Management Designations or Considerations:

None listed.

Watershed and Fisheries Considerations:

The Stutsmanville Bog is found adjacent to this compartment. Though none of the treatments proposed appear as though they will impact this area directly, this area should be protected with the appropriate BMP's.

Wildlife Habitat Considerations:

Treatments in this compartment will maintain age class diversity in aspen while creating early successional habitat benefiting deer, grouse, wild turkey and woodcock.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured glacial till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 800 and 1,000 feet. The Devonian Bell Shale and Dundee Limestone subcrop below the glacial drift. The Dundee is quarried for limestone elsewhere in the state. The nearest gravel pit is located three miles to the east and potential appears to be good on the uplands. The nearest oil and gas production, the Antrim Shale gas play, is located 20 miles to the south. There is no known oil and gas potential in the area and no lands in the compartment are currently leased.

Vehicle Access:

Several county roads and forest two-tracks provide access into the compartment.

Survey Needs:

Potentially 1 1/4 miles of survey work is needed.

Recreational Facilities and Opportunities:

A designated snowmobile trail runs through the compartment.

Fire Protection:

The Pellston Field Office is located 15 miles to the northeast. Harbor Springs VFD is located 4 miles to the south.

Additional Compartment Information:

The following reports from the Inventory are attached:

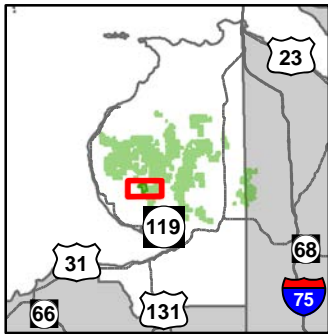
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

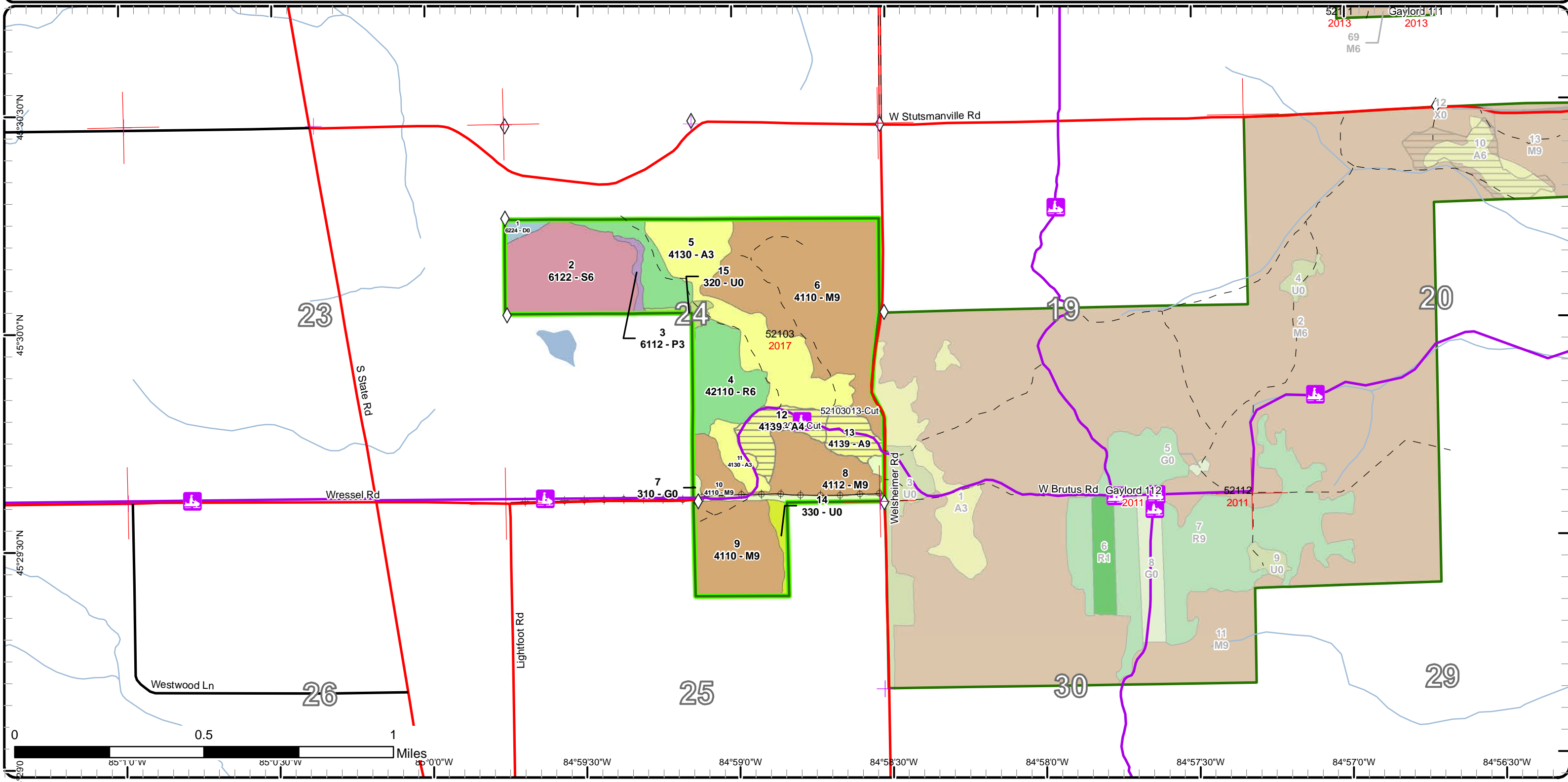
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 103
 T36N,R06W, Sec. 24, 25
 County: Emmet
 Unit: Gaylord
 Mgmt Area: Emmet Moraines
 YOE: 2017
 Acres: 354 GIS Calculated
 Examiner: Donald Stacks
 Map Revised: 3/24/2016
 Map Phase: Post-Review

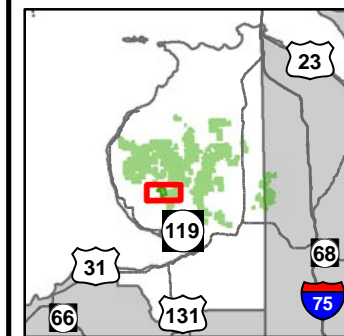


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|---|---|
| <ul style="list-style-type: none"> — Miris Corners + Remonumented Section Corners ◇ Field Grade GPS Corners 🚙 Snowmobile Trails 🚙 Designated Snowmobile Trails — County Paved Roads — Paved Roads — County Gravel Roads - - Poor Dirt Roads — Rivers ⚡ Powerline ▭ Compartment Boundary | <ul style="list-style-type: none"> ▭ Clearcut (w/Reserves) Forest Coverture 411 - Northern Hardwood 413 - Aspen 421 - Planted Pines 611 - Lowland Deciduous Forest 612 - Lowland Coniferous Forest Non-Forest Coverture 310 - Herbaceous Openland 320 - Upland Shrub 330 - Low Density Trees 622 - Lowland Shrub Lakes |
|---|---|

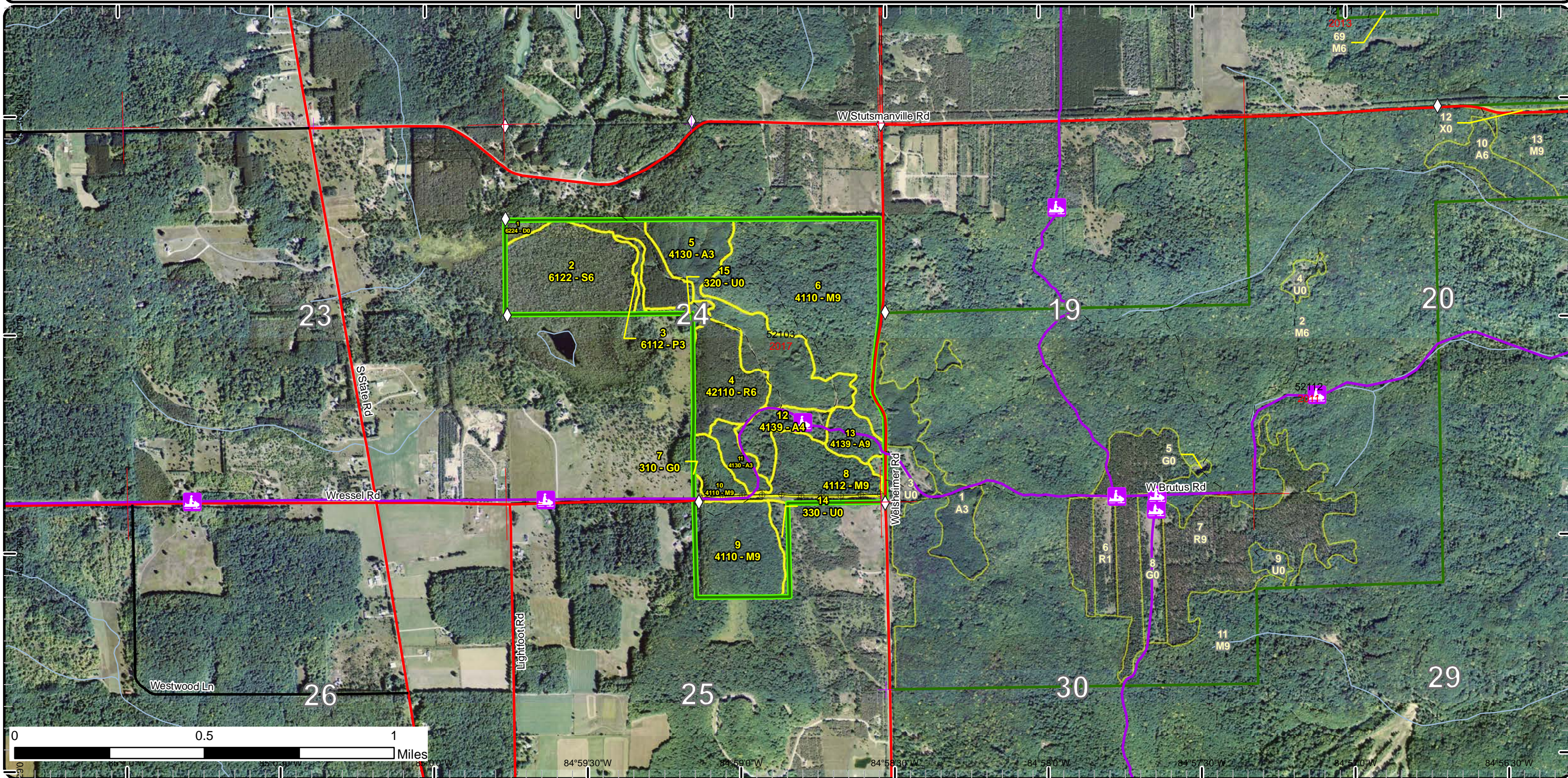


Stand Boundary Map

Compartment: 103
 T36N,R06W, Sec. 24, 25
 County: Emmet
 Unit: Gaylord
 Mgmt Area: Emmet Moraines
 YOE: 2017
 Acres: 354 GIS Calculated
 Examiner: Donald Stacks
 Map Revised: 3/24/2016
 Map Phase: Post-Review

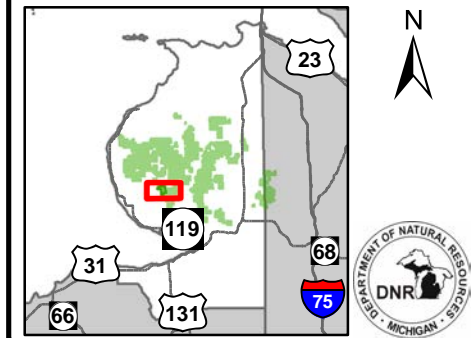


- Miris Corners
 - + Remonumented Section Corners
 - ◇ Field Grade GPS Corners
 - ▤ Snowmobile Trails
 - ▬ Designated Snowmobile Trails
 - ▬ County Paved Roads
 - ▬ Paved Roads
 - ▬ County Gravel Roads
 - - Poor Dirt Roads
 - ▬ Rivers
 - ⊕ Powerline
 - ▭ Compartment Boundary
 - ▭ Stand Boundaries
- 413 - Aspen
 - 421 - Planted Pines
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 310 - Herbaceous Openland
 - 320 - Upland Shrub
 - 330 - Low Density Trees
 - 622 - Lowland Shrub

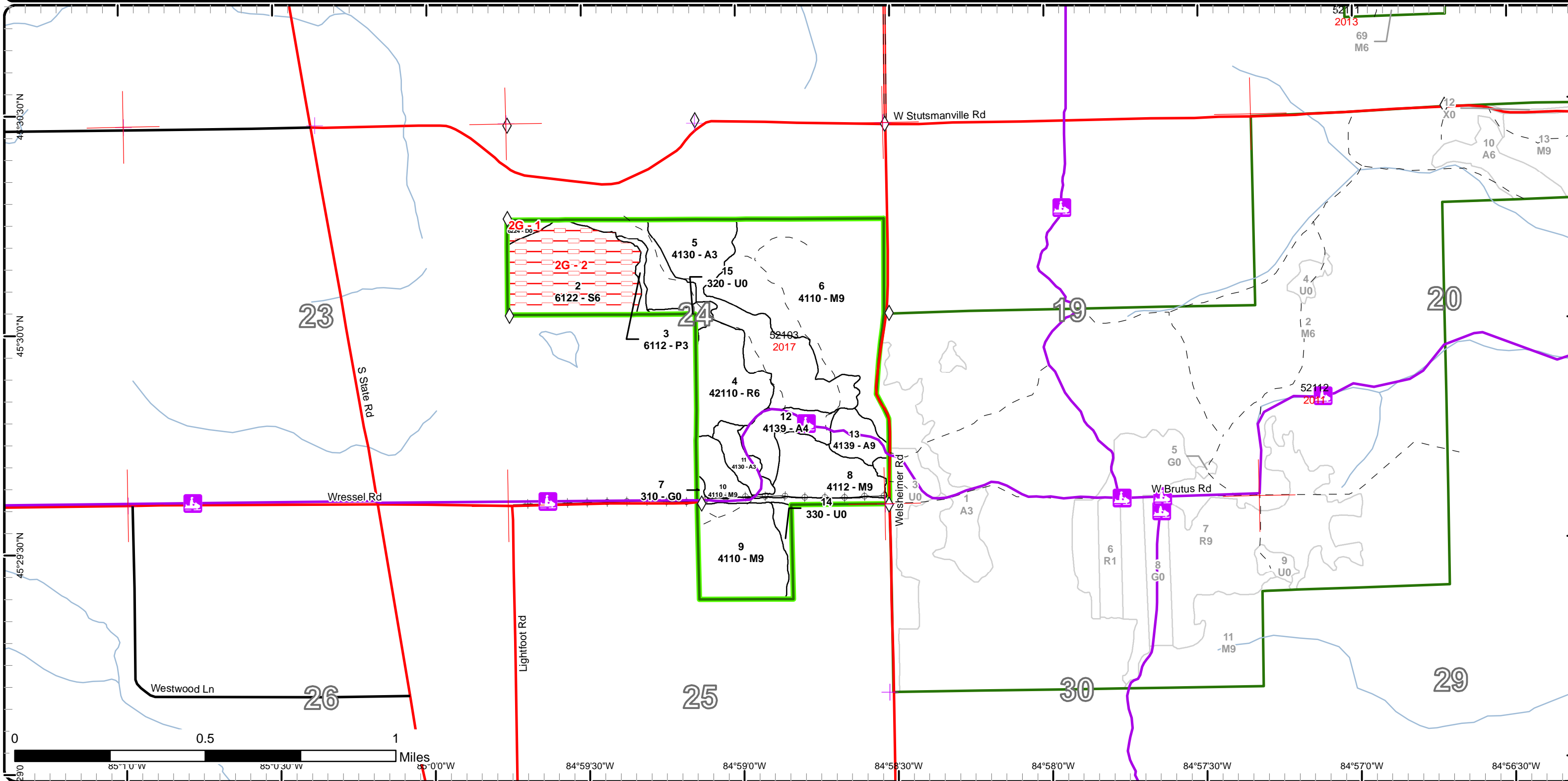


Special Conservation Areas & Site Conditions Map

Compartment: 103
 T36N,R06W, Sec. 24, 25
 County: Emmet
 Unit: Gaylord
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- Miris Corners
 - + Remonumented Section Corners
 - ◇ Field Grade GPS Corners
 - Snowmobile Trails
 - Designated Snowmobile Trails
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - - Poor Dirt Roads
 - Rivers
 - Powerline
 - Compartment Boundary
 - Unavailable
 - Stand Boundaries
 - Special Conservation Areas
- 2G: Too wet (sensitive soils, does not include access issues)





Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	8	50	0	0	14	0	0	0	0	0	0	0	0	0	0	10	82
Herbaceous Openland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Low-Density Trees	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Lowland Aspen/Balsam Poplar	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	48	0	0	0	0	0	0	0	0	48
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162	162
Red Pine	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	0	0	0	41
Treed Bog	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Upland Shrub	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	17	0	11	50	0	0	55	0	0	48	0	0	0	0	0	0	0	172	353



Report 2 – Treatment Summary

Gaylord Mgt. Unit

Compartment 103

Year of Entry:

Acres of Harvest

Total Compartment Acres: 354

Commercial Harvest - 24
 Harvests with Site Condition - 0
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

		Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen		24	0	0	0	0	0	0	0	0	24
	Total	24	0	0	0	0	0	0	0	0	24

Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		24	0	0	0	0	0	0	0	0	24
Next Step		0	0	0	0	0	24	0	0	0	24
	Total	24	0	0	0	0	24	0	0	0	48



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
12 52103012-Cut	14.2	4139 - Aspen, Mixed Deciduous	Poletimber Poor	57	1-50	Harvest	Clearcut	4139 - Aspen, Mixed Deciduous	Even-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription FINAL HARVEST ALL TREES 2" AND LARGER AT DBH EXCEPT BLACK CHERRY, HEMLOCK, AND WHITE PINE. SNOWMOBILE TRAIL MAY NOT BE USED FOR ANY HARVEST OPERATIONS BETWEEN DECEMBER 1 AND APRIL 1. CUT ALL STUMPS FLUSH WITH THE GROUND THAT ARE WITHIN TWO FEET OF THE SNOWMOBILE TRAIL. NO UNHARVESTED RETENTION ISLANDS ARE NEEDED DUE TO THE RELATIVELY SMALL SIZE OF THE HARVEST AREA. PROTECT AREAS OF SHRUB GROWTH DURING HARVEST ACTIVITIES BY MINIMIZING THE NUMBER OF SKID ROADS.

Next Step
Treatments:

Acceptable QUAKING ASPEN, BIGTOOTH ASPEN, MIXED NORTHERN HARDWOOD AT POOR TO MEDIUM STOCKING LEVELS.
Regen:

Other CUT ALL STUMPS FLUSH WITH THE GROUND THAT ARE WITHIN TWO FEET OF THE SNOWMOBILE TRAIL. PROTECT AND RESTORE SNOWMOBILE TRAIL DURING AND AFTER HARVEST OPERATIONS. SNOWMOBILE TRAIL SHOULD BE IN A CONDITION SUITABLE FOR GROOMING ON OR BEFORE DECEMBER 1. Old next step comments:

Proposed Start Date: 10/01/2016

13 52103013-Cut	9.9	4139 - Aspen, Mixed Deciduous	Sawtimber Well	72	111-140	Harvest	Clearcut	4139 - Aspen, Mixed Deciduous	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription FINAL HARVEST THIS STAND, ALONG WITH STAND 12 TO THE WEST, THIS YOE. CUT EVERYTHING 2" AND LARGER EXCEPT HEMLOCK, WHITE PINE, AND JUNE BERRY. DUE TO SIZE OF STAND, NO UNCUT RETENTION ISLANDS WILL BE LEFT. CUT ALL STUMPS FLUSH WITH THE GROUND THAT ARE WITHIN TWO FEET OF THE SNOWMOBILE TRAIL. SNOWMOBILE TRAIL WILL NOT BE USED FOR ANY HARVEST OPERATIONS BETWEEN DECEMBER 1 AND APRIL 1. SNOWMOBILE TRAIL WILL BE BLADED AND LEFT IN A CONDITION SUITABLE FOR GROOMING ON OR BEFORE DECEMBER 1.

Next Step
Treatments:

Acceptable A WELL-STOCKED STAND OF MIXED ASPEN AND NORTHERN HARDWOOD.
Regen:

Other STAND CONSISTS OF A MIX OF SCATTERED BIGTOOTH ASPEN SAWLOG CLONES AND NORTHERN HARDWOOD POLETIMBER, MOSTLY SUGAR MAPLE. A FEW SCATTERED SUGAR MAPLE SAWLOGS ARE ALSO PRESENT. SNOWMOBILE TRAIL RUNS THROUGH THIS STAND. ASPEN IS SHOWING SOME DECLINE. MANAGE THIS STAND FOR ASPEN. A LARGE STAND OF NORTHERN HARDWOOD SAWTIMBER IS ADJACENT TO THE NORTH. Old next step comments:

Proposed Start Date: 10/01/2016

Total Treatment Acreage Proposed: 24.1

Report 5 – Site Conditions

Gaylord Mgt. Unit
Donald Stacks : Examiner

Compartment: 103
Year of Entry: 2017

Availability for Management

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

Dominant Site Conditions

2G

82	82	0	0	Aspen	
7	7	0	0	Herbaceous Openland	
4	4	0	0	Low-Density Trees	
3	3	0	0	Lowland Aspen/Balsam Poplar	
48	0	0	48	Lowland Spruce/Fir	48
162	162	0	0	Northern Hardwood	
41	41	0	0	Red Pine	
3	0	0	3	Treed Bog	3
3	3	0	0	Upland Shrub	
354	303		51	Total Forested Acres	51
	86%		14%	Relative Percent	

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments: TREED BOG WITH STANDING WATER.							
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	48	Unspecified	Unspecified	Unspecified	Unspecified
Comments: BLACK SPRUCE/TAMARACK BOG, LEATHERLEAF GROUND COVER, WITH STANDING WATER.							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 6 – 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

Mgt. Unit

Compartment:

Year of Entry



Report 7 – 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:
2	6122 - Black Spruce	Poletimber Well	48.1	86	1-50	WET SWAMP CONIFERS, MOSTLY BLACK SPRUCE AND TAMARACK. LEATHERLEAF AND SPHAGNUM MOSS GROUND COVER. STANDING WATER, TOO WET TO HARVEST.
3	6112 - Lowland Aspen	Sapling Well	2.7	18	Immature	ASPEN REGEN FROM 1998 FINAL HARVEST. WET SITE. ADJACENT TO BLACK SPRUCE/TAMARACK STAND TO WEST AND RED PINE PLANTATION TO EAST. FAIRLY DENSE REGEN.
4	42110 - Planted Red Pine	Poletimber Well	41.4	58	111-140	RED PINE PLANTATION ON FLAT GROUND. ADJACENT TO A AND P TYPES. THINNING COMPLETED 05/2008. LOWER BA AT PRESENT. POSSIBLE MARKED THINNING NEXT Y.O.E. DENSE UNDERSTORY IN MOST OF STAND.
5	4130 - Aspen	Sapling Well	49.9	28	Immature	MIXED ASPEN/HARDWOOD REGEN FROM 1988 FINAL HARVEST, ON SOUTH AND WEST FACING SLOPES. REGEN SPOTTY IN SOME PLACES, BUT OVERALL, HIGH QUALITY AND WELL-STOCKED. HARDWOOD STUMP SPROUTS FAIRLY ABUNDANT ALSO.
6	4110 - Sugar Maple Association	Sawtimber Well	93.7	91	51-80	HIGH QUALITY NORTHERN HARDWOOD STAND, MOSTLY SAWTIMBER, ON ROLLING HILLS, SOME VERY HIGH AND STEEP. NE 40 ACRES OF STAND RECEIVED A SELECTION HARVEST IN 2001, WITH THE REMAINDER HARVESTED IN 2006. BA OF 79 SQ. FT. AT PRESENT. AREAS OF DENSE SUGAR MAPLE AND BEECH REGEN. POSSIBLE TREATMENT IN 20 - 30 YEARS.
8	4112 - Maple, Beech, Cherry Association	Sawtimber Well	23.4	82	51-80	NORTHERN HARDWOOD STAND, RECEIVED A SELECTION HARVEST IN 2008. LOWER BA AT PRESENT. POSSIBLE TREATMENT IN 10 - 20 YEARS. MOSTLY SUGAR MAPLE WITH SCATTERED BLACK CHERRY AND BEECH. RED MAPLE IS FOUND ALONG WESTERN BOUNDARY OF STAND.
9	4110 - Sugar Maple Association	Sawtimber Well	35.7	86	81-110	NICE QUALITY NORTHERN HARDWOOD STAND, MOSTLY SUGAR MAPLE SAWTIMBER AND BOLTWOOD. BA IS SLIGHTLY LOW AT PRESENT (108). SELECTION HARVEST NEXT YO.E. A MAJOR RIDGE RUNS NORTH TO SOUTH THROUGH THE CENTER OF THE STAND. THE EAST SLOPE OF THE RIDGE IS INOPERABLE. THE BEST ACCESS TO THE TOP OF THE RIDGE IS THROUGH PRIVATE PROPERTY TO THE SOUTH. DESIGNATED SNOWMOBILE TRAIL RUNS ALONG THE NORTH BOUNDARY OF THE STAND. PRIVATE OWNERSHIP EXISTS ON THREE SIDES, WITH A RESIDENCE AND GARAGE VERY CLOSE TO THE PROPERTY LINE ON THE WEST SIDE. A SURVEY WILL BE NEEDED TO DETERMINE THE LOCATION OF THE SE AND SW PROPERTY CORNERS.
10	4110 - Sugar Maple Association	Sawtimber Well	8.9	86	81-110	SMALL STAND OF LESSER STOCKED NORTHERN HARDWOOD, MOSTLY SUGAR MAPLE. MOSTLY SMALLER DIAMETER SAWLOGS AND BOLTWOOD. STAND BA IS 100 SQ. FT. THIS Y.O.E. QUALITY AND FORM OF TREES IS NOT GREAT. ADJACENT TO PRIVATE OWNERSHIP AND DESIGNATED SNOWMOBILE TRAIL. POSSIBLE TREATMENT IN 10 - 20 YEARS.

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Gaylord Mgt. Unit

Report 8 – Forested Stands

Compartment: 103
Year of Entry: 2017

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4130 - Aspen	Sapling Well	8.3	18	Immature	ASPEN REGEN FROM 1998 FINAL HARVEST. LESSER AMOUNTS OF MIXED HARDWOOD SAPS PRESENT ALSO. SNOWMOBILE TRAIL RUNS ALONG EAST EDGE OF STAND.
4139 - Aspen, Mixed Deciduous	Poletimber Poor	14.2	57	1-50	SPARSE STAND OF MIXED ASPEN/HARDWOOD (MOSTLY BLACK CHERRY, SUGAR MAPLE AND RED MAPLE) . FAIRLY DENSE AREAS OF UPLAND BRUSH IN UNDERSTORY. SNOWMOBILE TRAIL RUNS THROUGH STAND.
4139 - Aspen, Mixed Deciduous	Sawtimber Well	9.9	72	111-140	STAND CONSISTS OF A MIX OF SCATTERED BIGTOOTH ASPEN SAWLOG CLONES AND NORTHERN HARDWOOD POLETIMBER, MOSTLY SUGAR MAPLE. A FEW SCATTERED SUGAR MAPLE SAWLOGS ARE ALSO PRESENT. SNOWMOBILE TRAIL RUNS THROUGH THIS STAND. ASPEN IS SHOWING SOME DECLINE. MANAGE THIS STAND FOR ASPEN. A LARGE STAND OF NORTHERN HARDWOOD SAWTIMBER IS ADJACENT TO THE NORTH.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	6224 - Treed Bog	2.9	No	LEATHERLEAF BOG. SCATTERED SMALL BLACK SPRUCE EXIST ALONG THE SOUTH EDGE OF THE BOG. A SMALL AREA OF SLIGHTLY HIGHER GROUND EXISTS IN THE NW PART OF THE STAND WITH SCATERED BTA, BALSAM FIR AND RED MAPLE.
7	310 - Herbaceous Openland	7.5	No	UPLAND GRASS STAND LYING MOSTLY WITHIN UTILITY R.O.W. AND TWO SMALL OPENINGS ON EDGE OF HARDWOOD STANDS ALONG EAST AND WEST BOUNDARIES OF COMPARTMENT.
14	330 - Low-Density Trees	4.2	No	
15	320 - Upland Shrub	3.1	No	SMALL UPLAND BRUSH STAND LOCATED BETWEEN RED PINE PLANTATION AND PRIVATELY OWNED GRASS FIELD. SCATTERED, SPARSE VIBURNUM, PIN CHERRY, BLACK CHERRY, AND SCOTCH PINE.