# DNR MICHIGAN

#### Compartment Review Presentation

**Gaylord Forest Management Unit** 

Compartment 52124
Entry Year 2018
Acreage: 692
County Emmet

**Management Area: Emmet Moraines** 

**Revision Date: 2016-05-13** 

Stand Examiner: Donald Stacks

**Legal Description:** 

T35N R04W Sections 6, 7, and 8.

#### **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 rolling hills, with some steep slopes present.

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

Private residential areas are located on all sides of the compartment.

#### **Unique Natural Features:**

Species listed include: Red-shouldered hawk, goshawk, osprey, eagle, loon, Massasauga rattlesnake, English sundew, slough grass, round-leaved orchid, Ram's head lady slipper, calypso orchid, and Michigan monkey flower.

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

None listed.

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

None.

#### Watershed and Fisheries Considerations:

There are no waterbodies in this compartment, so Fisheries has no concerns at this time.

#### Wildlife Habitat Considerations:

This compartment contains a good diversity of aspen age classes that benefits deer, grouse and woodcock. Openings are prescribed to be maintained in this compartment and supplemented with hard and soft mast plantings that will benefit deer, turkey, grouse, and woodcock.

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

Surface sediments consist of coarse-textured glacial till and minor amounts of lacustrine sediments, glacial outwash, 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. A former sand/gravel pit is located in Section 7, and there are several pits to the southeast in sections 9, 16, and 17. There appears to be good potential for additional sand and gravel production 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 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:**

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

#### **Survey Needs:**

Possibly one to two miles may need to be established.

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

A designated snowmobile trail runs through all three sections of the compartment.

#### **Fire Protection:**

The Harbor Springs VFD is located 9 miles to the west of the compartment and the Pellston DNR Field Office is located about 10 miles to the northeast.

#### **Additional Compartment Information:**

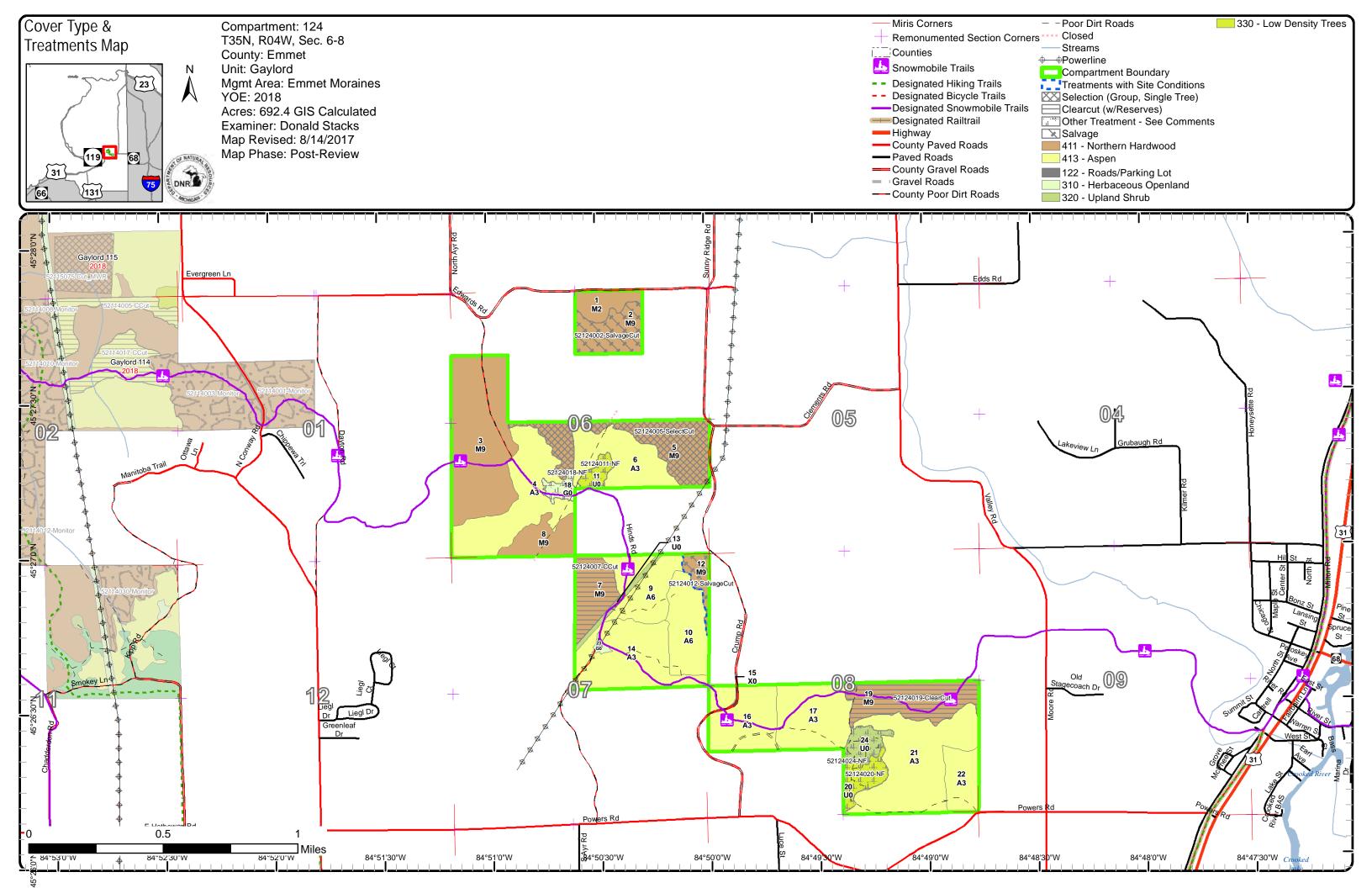
Beech Bark Disease and Emerald Ash Borer is affecting all northern hardwood stands within the compartment and are a major consideration for current forest treatment plans. Because of these forest health concerns, multiple treatments containing white ash and beech have been moved up to the 2017 entry year for harvest.

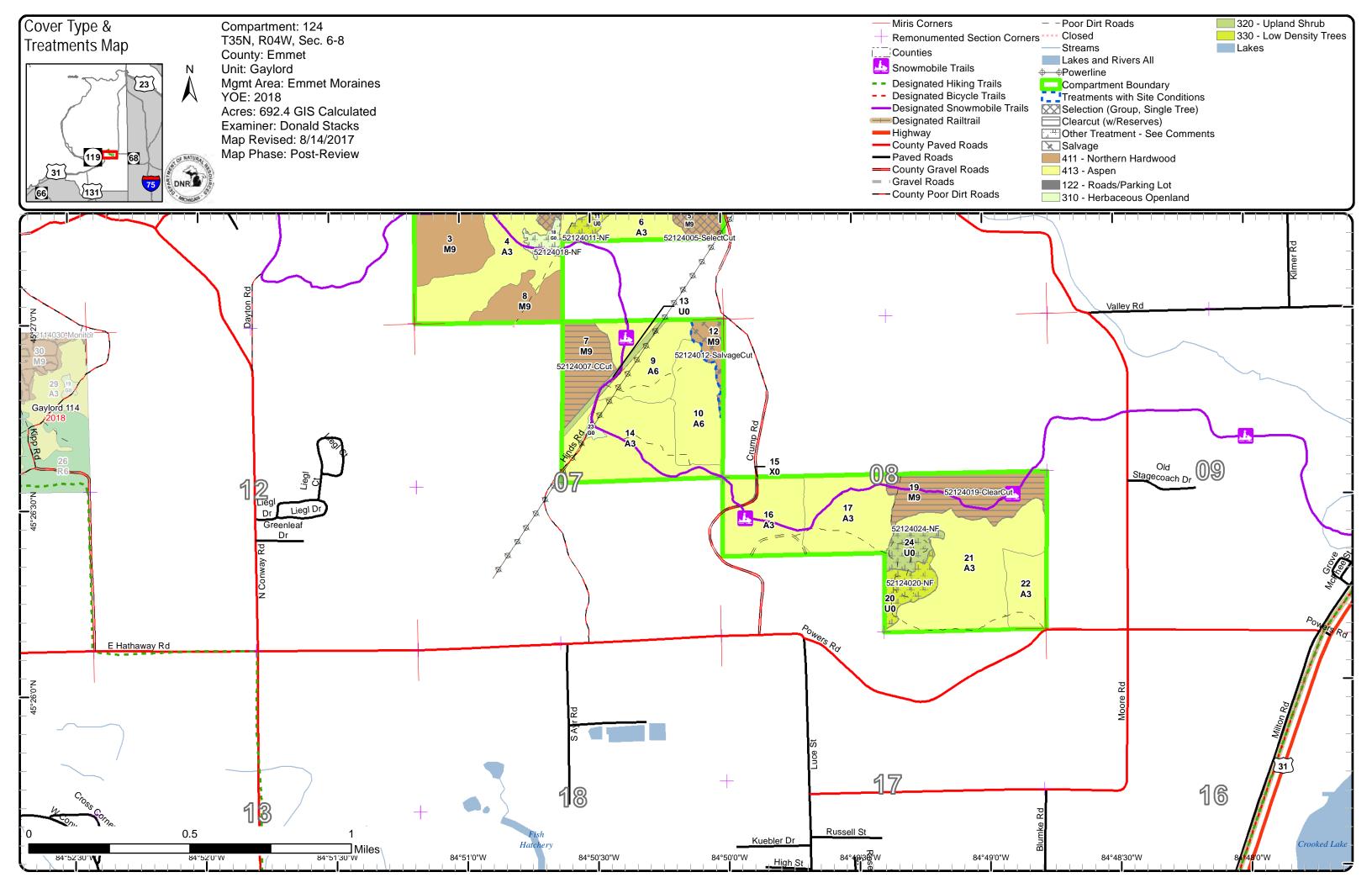
#### The following reports from the Inventory are attached:

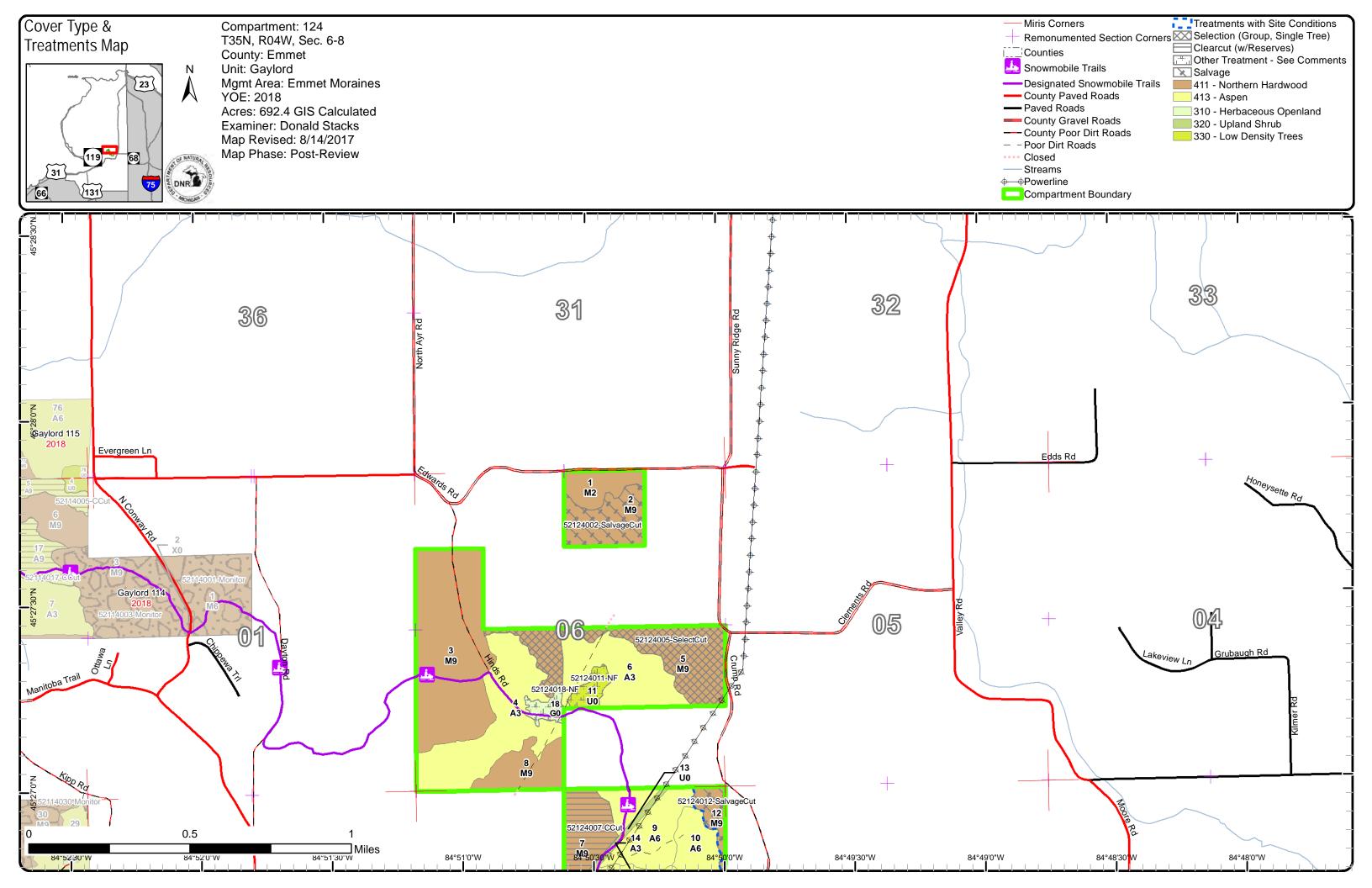
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

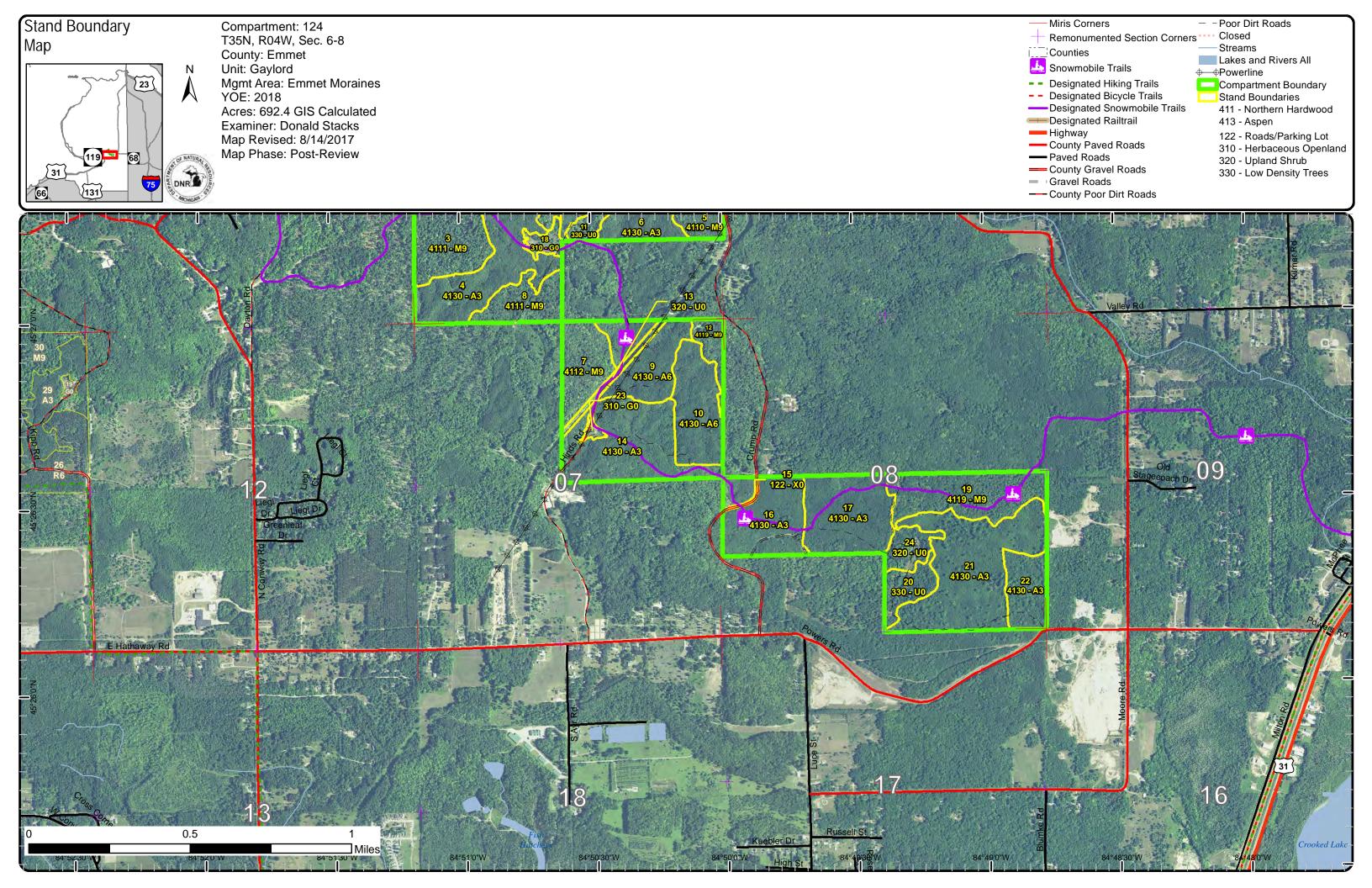
The following information is displayed, where pertinent, on the attached compartment maps: Base feature information, stand boundaries, cover types, and numbers

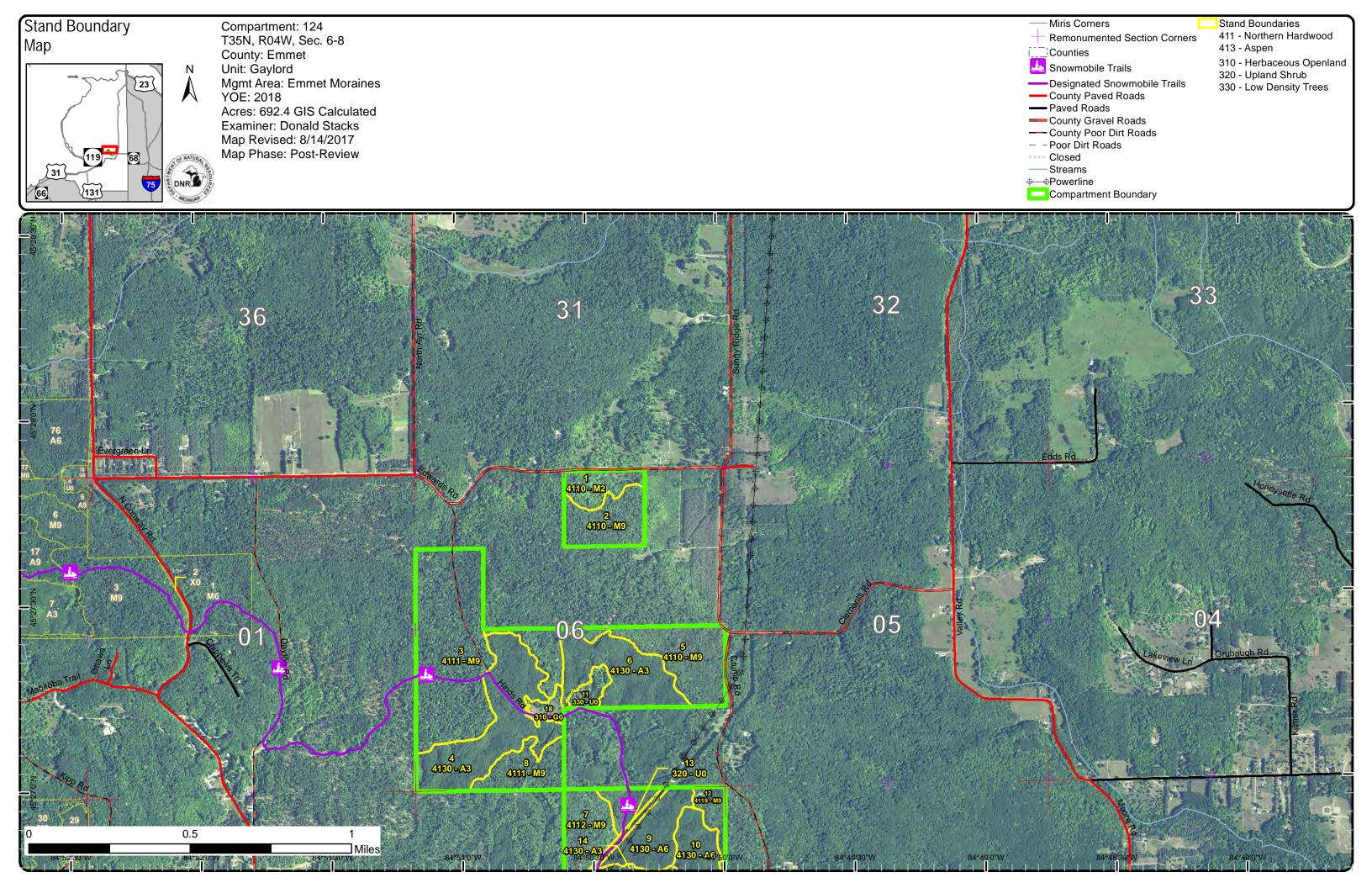
Proposed treatments
Site condition boundaries
Details on the road access system

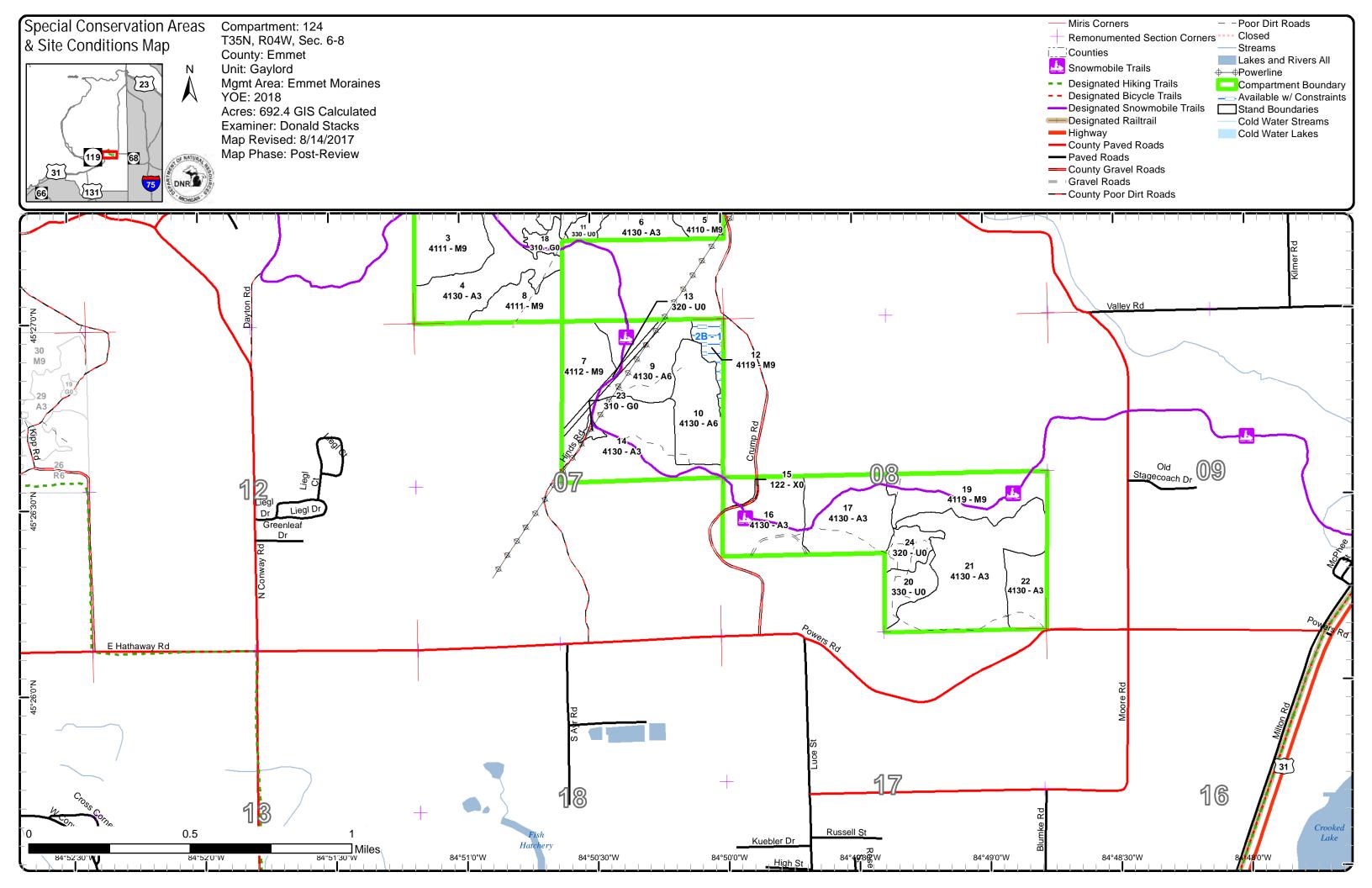


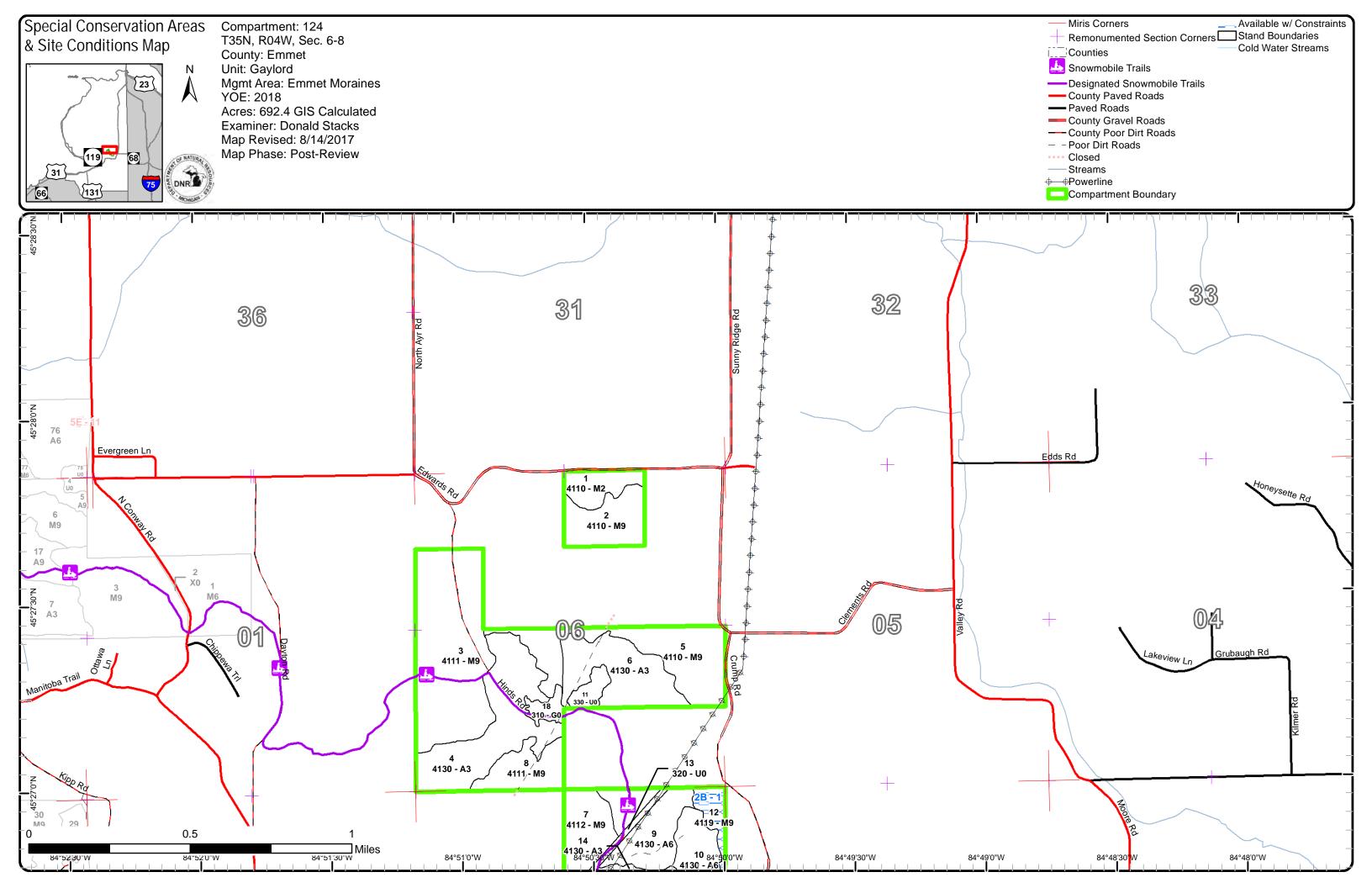












Gaylord Mgt. Unit

Compartment 124 Year of Entry 2018



**Donald Stacks : Examiner** 

#### Age Class

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Aspen	0	0	222	131	32	0	0	0	0	0	0	0	0	0	0	0	0	0	385
Herbaceous Openland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Low-Density Trees	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Northern Hardwood	0	0	0	0	13	0	0	0	0	32	0	0	0	0	0	0	0	219	264
Upland Shrub	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Urban	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	43	0	222	131	45	0	0	0	0	32	0	0	0	0	0	0	0	219	692



#### **Report 2 – Treatment Summary**

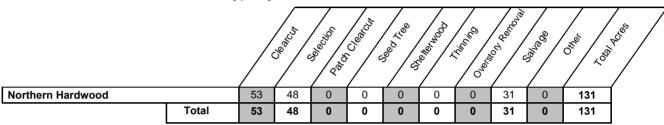
## Gaylord Mgt. Unit Year of Entry: 2018

#### **Acres of Harvest**

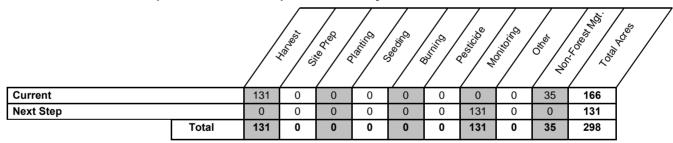
Compartment 124
Total Compartment Acres: 692

Commercial Harvest - 122 Harvests with Site Condition - 9 Next Step Harvest - 0 Habitat Cut - 0

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



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



Compartment: 124 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
2	52124002- SalvageCut	21.8 4	1110 - Sugar Maple Association	Sawtimber Well	91	81-110	Harvest	Salvage	411 - Northern Hardwood	Uneven- Aged	Field Boundary - Ready for VMS

**Habitat Cut: No** Site Condition:

Prescription Salvage cut all white ash and beech, except those marked with a green band of paint. Move up treatment to 2017 entry year. Monitor regen Specs:

closely after harvest.

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable A mix of northern hardwood species.

Regen:

Other Post-harvest treatments to discourage excessive beech regen may be applied.

Comment:

Proposed Start Date: 10/01/2016

5 52124005-47.7 4110 - Sugar Maple Sawtimber 111-Harvest Single Tree 411 - Northern Uneven-Field SelectCut Association Well 140 Selection Hardwood Aged Boundary -Ready for **VMS** 

**Habitat Cut: No Site Condition:** 

Prescription MARK FOR HARVEST COMMERCIALLY MATURE SUGAR MAPLE TREES WHILE RELEASING SUGAR MAPLE CROP TREES, AND Specs: CREATE 100' CANOPY GAPS. ALSO HARVEST REMAINING LIVE ASH OR BEECH, EXCEPT ANY RESISTANT BEECH TREES MARKED

WITH A BAND OF GREEN PAINT. MOVE UP TREATMENT DATE TO 2017 ENTRY YEAR BECAUSE OF ASH/BEECH MORTALITY. A POST-HARVEST TARGET BA SHOULD BE IN THE 65 - 70 SQ. FT. RANGE, WITH ASH/BEECH MORTALITY BEING A CONSIDERATION DURING THE MARKING PROCESS. THE DESIGNATED SNOWMOBILE TRAIL MAY NOT BE USED FOR ACCESS OR HARVEST ACTIVITY

DURING THE SNOWMOBILE SEASON. Monitoring, Natural Regen (Intermediate)

Next Step Treatments:

Acceptable A mix of northern hardwood species.

Regen:

MONITOR BEECH REGEN CLOSELY. POST HARVEST TREATMENTS TO DISCOURAGE HEAVY BEECH REGEN MAY BE NECESSARY. Other

Comment:

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

7 52124007-21.8 4112 - Maple, Sawtimber 86 111-Harvest Clearcut 4116 - Mixed N. Even-Aged Field Beech. Cherry Well Hardwood -140 Boundary -**CCut** Association Aspen Ready for **VMS** 

**Habitat Cut: No Site Condition:** 

Prescription PRESCRIBE FINAL HARVEST FOR THE 2017 ENTRY YEAR. CUT ALL TREES 2" AND LARGER AT DBH EXCEPT INCIDENTAL HEMLOCK. WHITE PINE, OAK, AND BLACK CHERRY. ALSO, DO NOT CUT RESISTANT BEECH MARKED WITH A BAND OF GREEN PAINT. NO UN-Specs:

HARVESTED RETENTION ISLANDS WILL BE UTILIZED BECAUSE OF THE RELATIVE SMALL ACREAGE OF THE STAND, AND THE DETERIORATING CONDITION OF THE BEECH COMPONENT. THIS WILL BE A NON-WINTER (APRIL 1 - DECEMBER 1) HARVEST ONLY BECAUSE THE SNOWMOBILE TRAIL WILL BE USED TO ACCESS THE SALE AREA. TIMBER SALE SPECS WILL PROTECT AND

MAINTAIN THE CONDITION OF THE TRAIL DURING HARVEST ACTIVITIES.

Next Step Monitoring, Natural Regen (Intermediate)

**Treatments:** 

Acceptable A MIX OF NORTHERN HARDWOOD AND ASPEN.

Regen:

MONITOR REGEN, ESPECIALLY BEECH, POST-HARVEST TREATMENTS TO DISCOURAGE BEECH REGEN MAY BE APPLIED. Other

Comment:

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

Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 124 s Year of Entry: 2018 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type Approval** Acres Age n Method Objective Name CoverType Density Age Range Type Structure **Status** d 52124011-NF 6.3 330 - Low-Density Unspec NonForestMgt Other - Specify 310 -Draft Field 11 Nonstocked Trees ified Herbaceous Boundary Openland **Habitat Cut: No Site Condition:** Prescription Mow, plant, brush, burn, and/or herbicide to maintain opening. Plant hard or soft mast. Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Comment: 10/01/2017 **Proposed Start Date:** Draft Field 12 52124012-8.9 4119 - Mixed Sawtimber 86 111-Harvest 411 - Northern Uneven-Salvage Northern Hardwoods Well 140 Hardwood Aged Boundary SalvageCut **Habitat Cut: No** Site Condition: Unknown Access Prescription Salvage cut all ash and beech, except resistant beech marked with a band of green paint. Move up treatment to fiscal year 2017. Access into the sale area must be achieved through private property. Permission from landowner has not been granted at this time. Factor limit this Specs: prescription. Next Step Monitoring, Natural Regen (Intermediate) Treatments: Acceptable A mix of northern hardwood species. Regen: Other Closely monitor composition of regen after harvest. Post-harvest treatments to discourage beech regen may be applied. Comment: **Proposed Start Date:** 10/01/2016 Unspec NonForestMgt 52124018-NF 5.4 310 - Herbaceous Nonstocked 310 -Draft Field Other - Specify Openland ified Herbaceous Boundary Openland **Habitat Cut: No Site Condition:** Prescription Mow, plant, brush, burn, and/or herbicide to maintain opening. Plant hard or soft mast. Specs: Next Step Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

**Proposed Start Date:** 10/01/2017 Report 3 -- Treatments

**Site Condition: Habitat Cut: No** 

Specs:

Prescription Prescribe treatment for the 2017 entry year because of dying beech component. Cut everything 2" and larger at DBH, except red oak, black cherry, and incidental hemlock and white pine. Also, do not cut resistant beech marked with a band of green paint. No un-harvested retention islands will be left. Harvest will take place during the non-winter months (April 1 - December 1) because access to the sale area will be gained by the snowmobile trail. Cut stumps flush with the ground for any trees harvested within 10' of the snowmobile trail. Trail must be signed and protected from damage during harvest activity, and left in a condition suitable for grooming by December 1. After harvest is complete, closely monitor regen, especially the beech component.

Next Step Monitoring, Natural Regen (Intermediate)

**Treatments:** 

Acceptable A mix of northern hardwood, red oak, and aspen.

Gaylord Mgt. Unit

Regen:

Other Post-harvest treatments to discourage excessive beech regen may be needed.

Comment:

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

310 -Draft Field 20 52124020-NF 12.5 330 - Low-Density Nonstocked Unspec NonForestMgt Other - Specify ified Herbaceous Boundary Trees Openland

**Habitat Cut: No Site Condition:** 

Prescription Mow, plant, brush,burn, or herbicide to maintain openings. Plant hard or soft mast.

Specs:

Next Step Treatments:

Acceptable

Regen:

Other

Comment:

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

52124024-NF Other - Specify 10.7 320 - Upland Shrub Nonstocked Unspec NonForestMgt 310 -Draft Field ified Herbaceous Boundary

Openland

Compartment: 124

**VMS** 

**Habitat Cut: No Site Condition:** 

Prescription Mow, plant, brush, burn, or herbicide to maintain openings. Plant hard or soft mast.

Specs:

Next Step

Treatments:

<u>Acceptable</u>

Regen:

**Other** 

Comment:

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

**Total Treatment** Acreage Proposed:

166.3

Compartment: 124

Gaylord Mgt. Unit

0%

98%

2%

Donald Stacks : Examiner Year of Entry: 2018

#### **Availability for Management** Total Acres Acres Avail Acres **Dominant Site Conditions** Available With Condition Not Available 2B 5C Acres 385 385 0 Aspen 0 7 0 Herbaceous Openland 7 0 19 19 0 0 Low-Density Trees 264 249 0 Northern Hardwood 9 15 6 16 16 0 **Upland Shrub** 0 1 0 Urban 0 692 677 15 **Total Forested Acres** 9 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.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	2B: Unknown if access through adjacent landowner(s) is possible	9	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						

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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				

Mgt. Unit Compartment:
Year of Entry

#### Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS



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

Conservation Type Description Area

ERA = Ecological Reference Area

HCVA = High Conservation Value Area

SCA = Special Conservation Area

s t	Gaylord	d Mgt. Unit		Report 7	- Forested	Stands Compartment: 124 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	Sapling Medium	13.4	31	Immature	Encroaching hardwood, aspen, and upland shrubs into and old field, possibly and old homestead site. A few old apple trees present.
2	4110 - Sugar Maple Association	Sawtimber Well	24.3	91	81-110	Nice quality n. hardwood sawtimber stand, mostly sugar maple, located on moderate terrain. Completed selection harvest in 2009. Current BA is 88 sq. ft. Beech has not seriously declined at this point, and is the second most stocked specie. Minor white ash component. Sparse, scattered BTA and hemlock present also. Prescribe ash/beech salvage harvest.
3	4111 - S.Maple, Hard Mast Association	Sawtimber Well	84.8	81	51-80	Nice quality mixed hardwood sawlog/poletimber stand with scattered BTA also. Selection hardwood completed in 2009.  Lower BA presently (75 sq. ft.). Lesser beech/ash component at present, and what is there is in decline or already dead, especially the ash. Not practical for salvage at this point. Snowmobile trail and seasonal county road run through stand. Possible selection harvest in 20 - 30 years.
4	4130 - Aspen	Sapling Well	57.0	17	Immature	BTA regen from 1999 final harvest. Lesser amounts of hardwood regen also. Continue to manage this stand for aspen. Final harvest again in about 40 years. Snowmobile trail runs through stand. Hilly terrain.
5	4110 - Sugar Maple Association	Sawtimber Well	49.3	86	111-140	STAND CONSISTS OF A MIX OF NORTHERN HARDWOOD, MOSTLY SUGAR MAPLE SAWTIMBER. THERE IS A SUBSTANTIAL BEECH COMPONENT, WITH A SIGNIFICANT AMOUNT OF MORTALITY ALREADY PRESENT. MANY STEMS HAVE SNAPPED. THERE IS ALSO A LESSER WHITE ASH COMPONENT, MOST OF WHICH ARE DEAD/DYING FROM EAB, OR HAVE BEEN UP-ROOTED BY WINDTHROW.
6	4130 - Aspen	Sapling Well	37.9	27	Immature	Good quality BTA/n. hardwood regen from 1990 final harvest. final harvest again in about 30 years.
7	4112 - Maple, Beech, Cherry Association	Sawtimber Well	23.5	86	111-140	NORTHERN HARDWOOD CONSISTING MOSTLY OF BEECH AND RED MAPLE SAWLOG/POLETIMBER, WITH LESSER AMOUNTS OF SUGAR MAPLE POLETIMBER. SCATTERED, MATURE BTA SAWLOGS PRESENT, BUT SHOWING LOSS OF VIGOR. HEAVY BEECH UNDERSTORY OF VARIABLE HEIGHT. BBD PRESENT WITH MORTALITY JUST STARTING TO OCCUR.
8	4111 - S.Maple, Hard Mast Association	Sawtimber Well	20.0	81	81-110	Mixxed hardwood sawlog/poletimber stand on very hilly terrain. Selection harvest was completed in 2009. Present BA is about 100 sq. ft. Beech component is in decline, with some beech snap present. Low white ash component. Ash/beech salvage is not practical at this point. Treatment possible in about 20 years.
9	4130 - Aspen	Poletimber Well	32.3	38	51-80	Fairly well-stocked young BTA poletimber from 1979 final harvest, on hilly terrain. Mixed hardwood in the understory. Snowmobile trail runs through stand. Manage for aspen, final harvest in about 20 years.

s t	Gaylord	Gaylord Mgt. Unit				Stands Compartment: 124 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
10	4130 - Aspen	Poletimber Well	32.2	28	1-50	Well-stocked young, BTA poletimber from 1989 final harvest, on hilly terrain. Mixed hardwood in understory. Manage stand for aspen, final harvest in about 30 years.
12	4119 - Mixed Northern Hardwoods	Sawtimber Well	8.9	86	111-140	Small acreage mixed northern hardwood stand consisting mostly of beech sawtimber/poletimber. Sugar maple, basswood, and red oak sawtimber/poletimber make up the balance of the stand. Sparse, scattered BTA and white ash sawlogs are also present. The beech does not show significant mortality yet, but BBD is present throughout the stand. Present BA is about 116 sq. ft. Prescribe ash/beech salvage for 2017 entry year. Salvage harvest will reduce the residual BA to approx. 76 sq. ft. Extreme topography is present through the state-owned land to the west, making the best access into the stand through private property to the east off Crump Rd., with permission from the landowner questionable.
14	4130 - Aspen	Sapling Well	54.4	17	Immature	BTA regen from 1999 final harvest. Lesser amounts of northern hardwood regen present also. Scattered hemlock and quaking aspen present. Continue to manage stand for aspen. Final harvest again in about 40 years. Snowmobile trail runs through stand.
16	4130 - Aspen	Sapling Well	38.8	17	Immature	BTA regen from 2000 final harvest. Continue to manage for aspen. Final harvest in about 40 years. Snowmobile trail runs through stand.
17	4130 - Aspen	Sapling Well	41.9	27	Immature	BTA regen from 1990 final harvest. Mixed hardwood in understory. Continue to manage this stand for aspen. Final harvest in 30 - 40 years. Designated snowmobile trail runs through stand.
19	4119 - Mixed Northern Hardwoods	Sawtimber Well	40.3	86	81-110	Stand consists of a mix of mostly beech, red oak, and red maple poletimber/sawlogs. Lesser amounts of sugar maple, yellow birch, and big-toothed aspen are also present. Selection harvest was completed on this stand in 2010. Present BA is 82 sq. ft. Beech scale is present through the entire stand but the beech is still in decent shape, with very little mortality present at this time. Considering the fact that over half the stand is stocked with beech and red maple, a final harvest has been prescribed for this YOE. A designated snowmobile trail runs through this stand.
21	4130 - Aspen	Sapling Well	72.1	17	Immature	Aspen/northern hardwood regen from 2000 final harvest. Scattered residual red oak and hemlock remain from harvest. Continue to manage stand for aspen. Final harvest again in about 40 years.
22	4130 - Aspen	Sapling Well	18.8	28	Immature	BTA/northern hardwood regen from 1989 final harvest. Continue to manage the stand for aspen. Final harvest in about 30 years.

Compartment: 124 Year of Entry: 2018



Stand	Cover Type	Acres	Managed Site	General Comments:
11	330 - Low-Density Trees	6.3	No	Mixed upland shrubs and encroaching hardwood/aspen saplings. A few white pine saplings present also. On south facing slope adjacent to the snowmobile trail.
13	320 - Upland Shrub	4.9	No	Upland shrubs and encroaching saplings along utility R.O.W.
15	122 - Road/Parking Lot	0.9	No	Crump Rd.
18	310 - Herbaceous Openland	5.4	No	Grass opening. 100 native fruit-bearing shrubs were planted in the northwest corner of the stand by RGS volunteers on April 15, 2017.
20	330 - Low-Density Trees	12.5	No	Sparse, scattered WP and scotch pine, and upland shrub.
23	310 - Herbaceous Openland	1.8	No	Grass opening.
24	320 - Upland Shrub	10.7	No	Scattered upland shrubs and encroaching saplings. A few scattered apple trees present.