

### **Compartment Review Presentation**

**Gaylord Forest Management Unit** 

Compartment 52159 Entry Year 2019 Acreage: 1,713

County Cheboygan

Management Area: Chandler Hills

Revision Date: 2017-04-11

Stand Examiner: Donald Stacks

**Legal Description:** 

T33N R03W, Sections 24, 25, and 36.

#### **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 and Rubicon sands on rolling hills, with a few steep slopes located in the southern 1/3 of the compartment.

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

State ownership in the compartment is contiguous except for private acreage found in section 36. The I-75 corridor also runs through section 36. Agricultural and residential property is found to the north and east.

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

Red-shouldered hawk has been observed in and around the compartment in recent years.

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

None listed.

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

None.

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

This compartment is in the Sturgeon River watershed, and contains part of Blackjack Creek, a tributary to Stewart Creek. Both Blackjack Creek and Stewart Creek are designated trout streams and have Type 1 trout stream regulations. There is illegal ORV use occurring at the bottom of a hill near Blackjack Creek, which is causing erosion. Efforts should be made to reduce erosion to the river. A buffer should be maintained in Stand 35 near Black Jack Creek to discourage Beaver activity.

#### Wildlife Habitat Considerations:

This compartment is primarily northern hardwoods with aspen and pine scattered throughout. Blackjack creek runs through the center of the compartment and supports various wetland dependent species. Areas with aspen should be maintained for diversity and benefits to wildlife. Openings within this compartment will be treated for invasive species and enhanced for wildlife habitat. Featured species include wild turkey, deer, woodcock, black bear, pine marten and ruffed grouse.

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

This area has been leased for oil and gas exploration in the recent past as part of the Collingwood lease play. While the Collingwood has produced some hydrocarbons elsewhere, the formation has not proven to be an economically viable resource play to date. Interest in the formation has waned and all leases in the area have expired. The nearest active oil and gas production, the Antrim Shale gas play, is located just south and east of the compartment. There are active leases within sections 25 and 36 that are held by production, but there are no producing wells in either section. The Antrim appears to be thin or absent beneath much of the compartment. There may be some Antrim potential in Section 36, but oil and gas potential within the remainder of the compartment is considered low at this time. A former sand/gravel pit is located to the north, in Section 13. Sand and gravel potential appears to be good within the compartment, though little data is available.

#### **Vehicle Access:**

Multiple seasonal county roads and forest trail roads provide access into the compartment.

#### **Survey Needs:**

Possibly 1/4 to one mile of private boundary line may need to be established.

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

An ORV trail and designated snowmobile trail are found within the compartment.

#### **Fire Protection:**

The Indian River Field Office is located approximately 12 miles to the north and the Wolverine VFD is located approximately 2 miles to the north of the compartment.

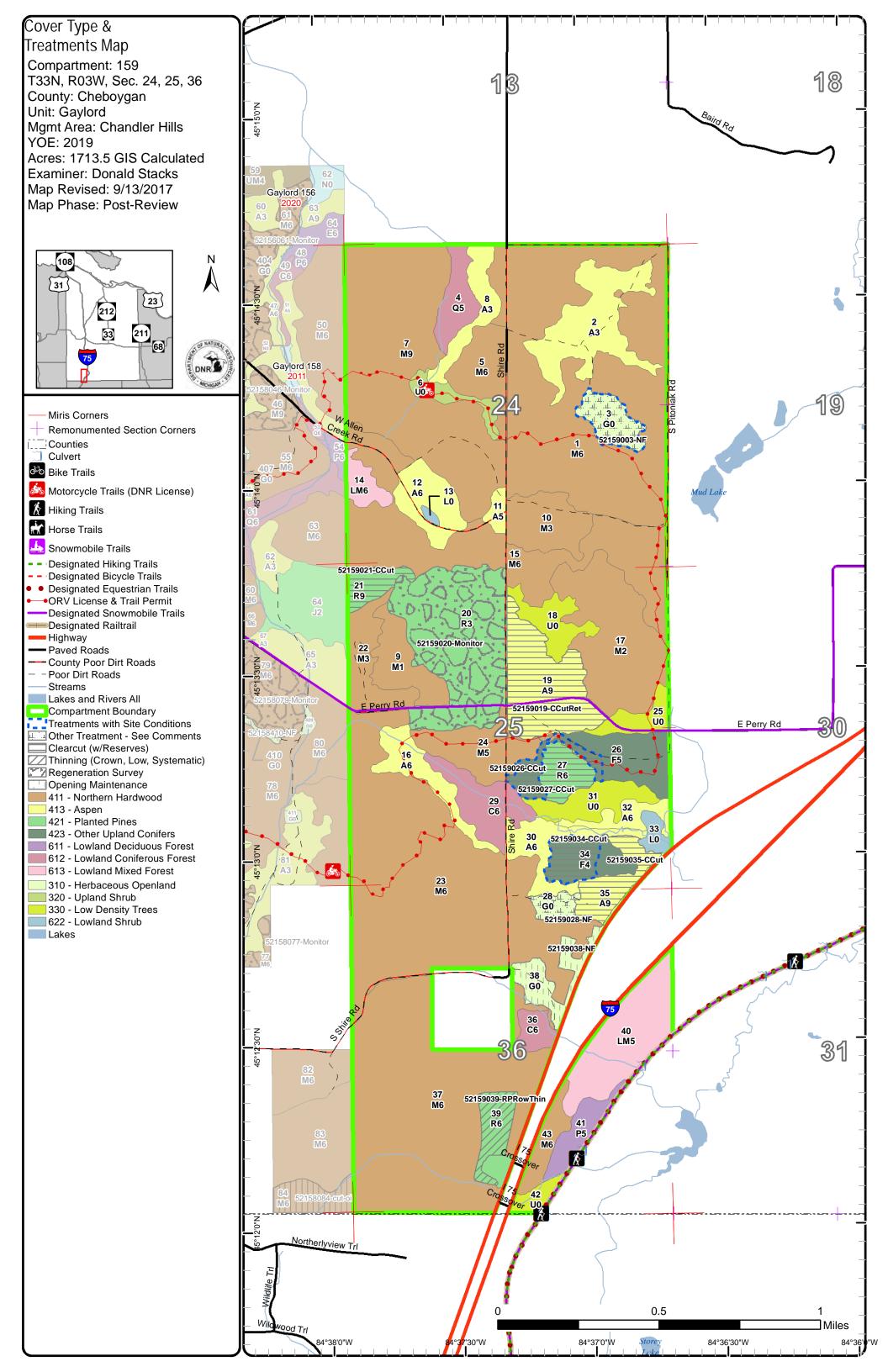
#### **Additional Compartment Information:**

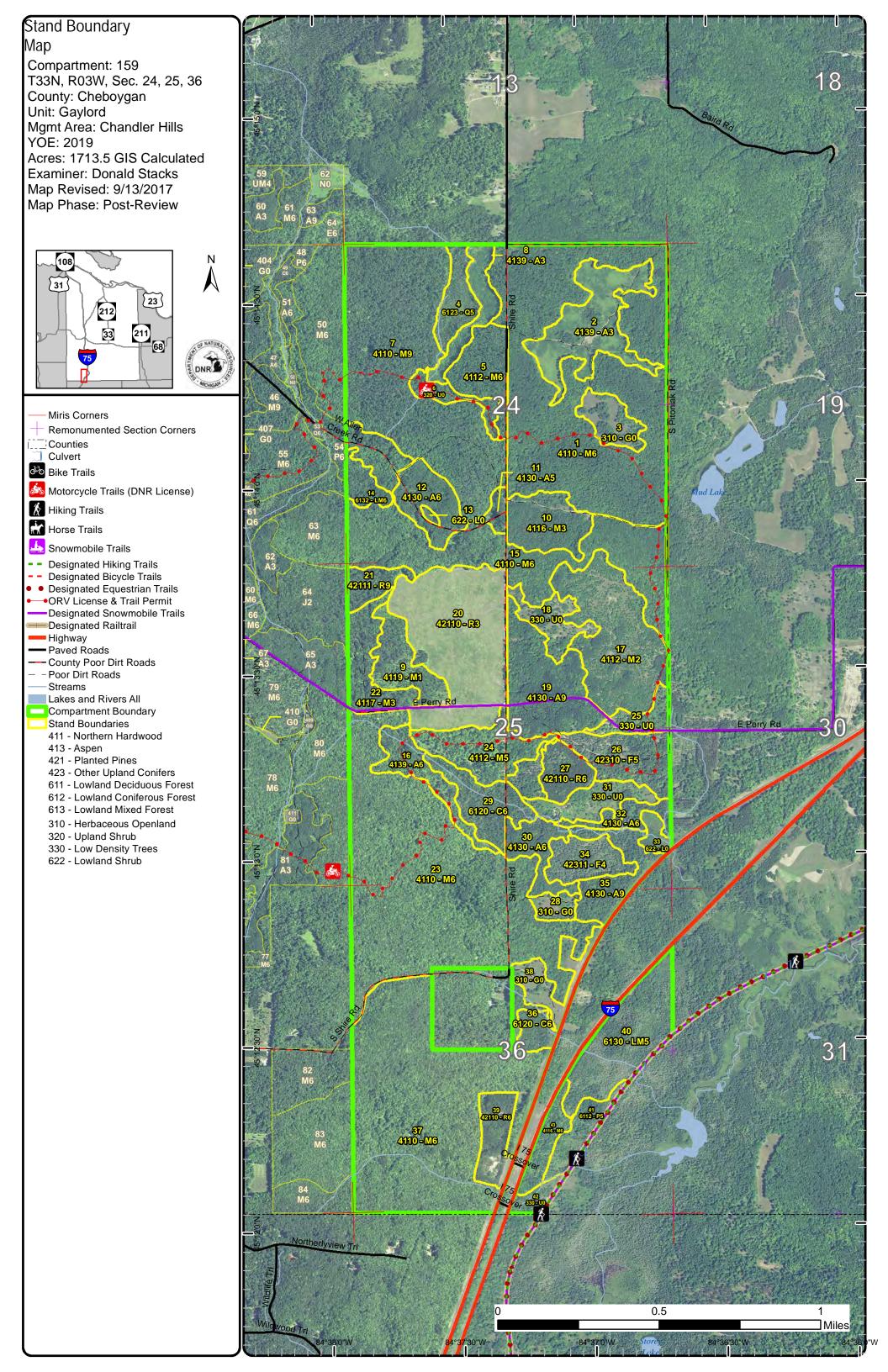
The following reports from the Inventory are attached:

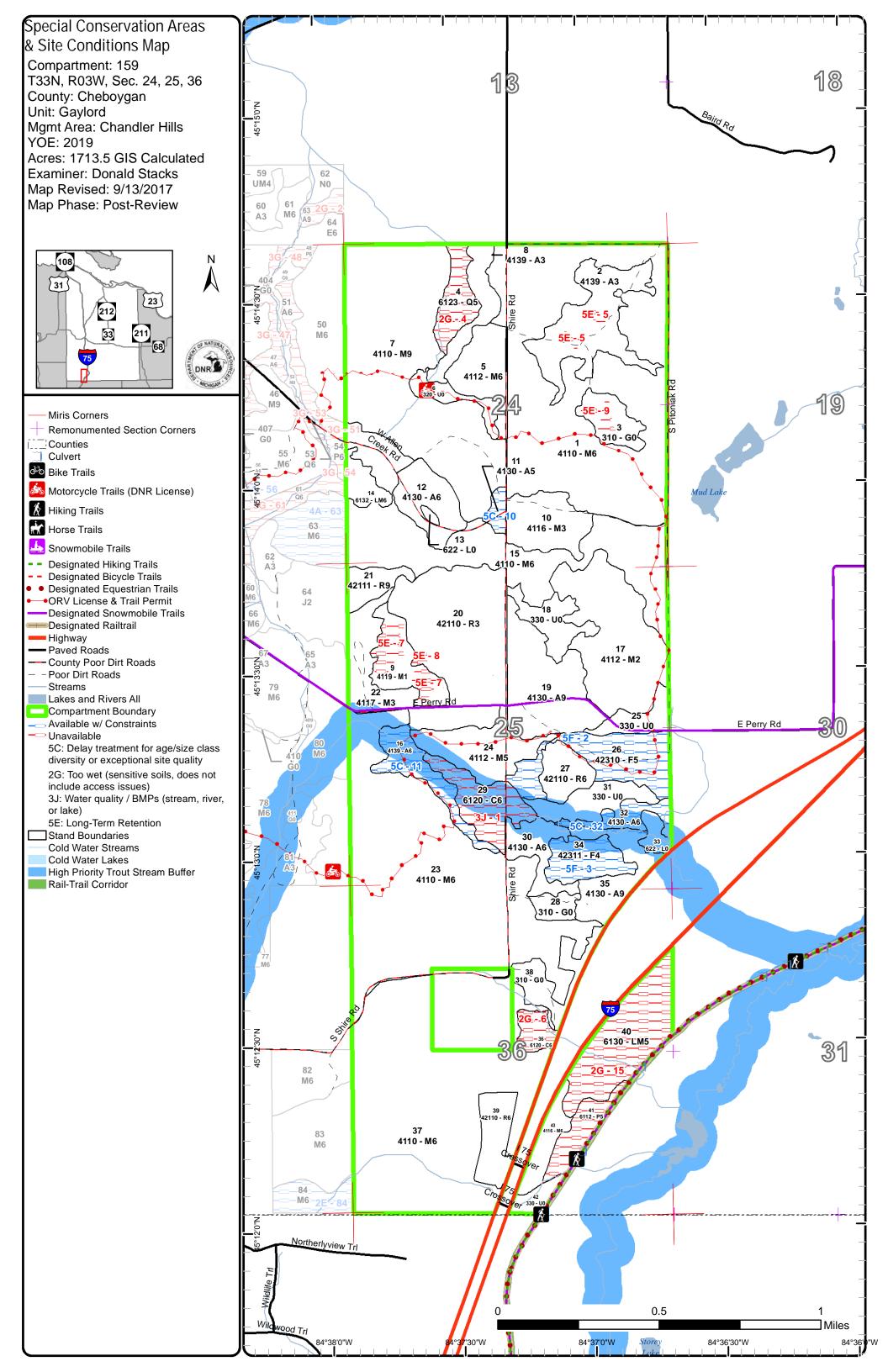
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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

Compartment 159 Year of Entry 2019

**Donald Stacks : Examiner** 



#### Age Class

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Aspen	0	64	0	22	17	20	54	11	24	0	0	0	0	0	0	0	0	0	212
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	25	8	0	0	0	0	33
Herbaceous Openland	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
Low-Density Trees	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	15
Lowland Conifers	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	16
Lowland Mixed Forest	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	9	59
Lowland Shrub	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Northern Hardwood	0	23	0	119	0	0	0	0	124	259	556	0	0	0	0	0	0	0	1081
Red Pine	0	90	0	0	0	15	18	0	11	0	0	0	0	0	0	0	0	0	133
Upland Shrub	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Upland Spruce/Fir	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	0	55
Total	109	177	0	141	17	90	72	11	224	275	556	0	25	8	0	0	0	9	1713



#### **Report 2 – Treatment Summary**

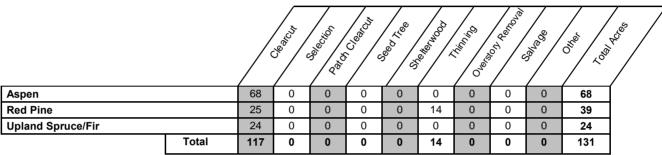
# Gaylord Mgt. Unit Year of Entry: 2019

**Acres of Harvest** 

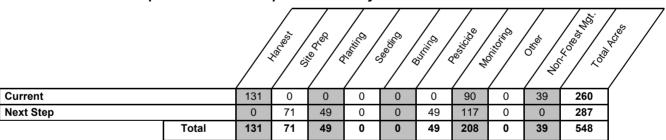
Compartment 159
Total Compartment Acres: 1,713

Commercial Harvest - 107 Harvests with Site Condition - 24 Next Step Harvest - 0 Habitat Cut - 0

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



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



Next Step

Other NO SEASONAL HARVEST RESTRICITIONS.

Comment:

Proposed Start Date: 10/01/2018

20 52159020-90.2 42110 - Planted Sapling 4 Immatu Monitoring Artificial 4211 - Planted Even-Aged **Draft Field** Monitor Red Pine Well Regen(3yr) Red Pine Boundary re

**Habitat Cut: No Site Condition:** 

Prescription Monitor seedlings, primarily red oak, which is the most recently planted specie.

Specs:

Next Step **Treatments:** 

Acceptable A fully-stocked stand of red pine with scattered red oak.

Regen: Other

Red pine seedlings doing very well.

Comment:

**Proposed Start Date:** 10/01/2018

Compartment: 159 Year of Entry: 2019



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
21	52159021- CCut	10.9	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	77	51-80	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No Site Condition:** 

Specs:

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Prescription PRESCRIBE A FINAL HARVEST THIS YOE. CUT ALL TREES 2 " AND LARGER AT DBH EXCEPT ANY INCIDENTAL OAK OR HEMLOCK. NO UN-HARVESTED RETENTION AREAS WILL BE LEFT BECAUSE OF THE SMALLER STAND ACREAGE. RED PINE WILL BE THE POST-HARVEST MO. TOPS WILL NEED TO BE CHIPPED OR REMOVED FROM SALE AREA TO FACILITATE TRENCHING AND REPLANTING RED PINE SEEDLINGS. STUMP HEIGHTS WILL NEED TO BE AS LOW AS POSSIBLE, NOT TO EXCEED 6". POSSIBLE ROLLER CHOPPING, FOLLOWED BY TRENCHING. RE-PLANTING SEEDLINGS. MONITORING. AND POSSIBLE HERBICIDE APPLICATION TO FOLLOW. ALSO, POSSIBLY PLANT A FEW DOZEN RED OAK SEEDLINGS. STAND 22 ADJACENT TO THE SOUTH WILL BE LEFT FOR DIVERSITY/AESTHETICS.

SitePrep, Roller Chopping: SitePrep, Trenching: Planting, Initial Plant: Monitoring, Artificial Regen(1yr): Pesticide, Skidder/Mechanical Next Step **Treatments:** 

Acceptable A FULLY STOCKED STAND OF PLANTED RED PINE SEEDLINGS.

Regen:

Other Comment:

**Proposed Start Date:** 10/01/2018

26 52159026-11.0 42310 - Planted Poletimber 51-80 Harvest Clearcut 4211 - Planted Even-Aged Draft Field Medium Red Pine Boundary **CCut** Spruce

#### **Habitat Cut: No** Site Condition: Evaluated for Forest Health

Specs:

Prescription In the designated west half of Stand 26, cut all trees 2" and larger at DBH except any incidental oak or hemlock. Tops will need to be chipped to facilitate site prep and replanting the stand back to red pine after harvest. No un-harvested retention islands will be left due to small stand acreage. The ORV trail that runs through Stand 26 should be relocated to the northeast out of the harvest area and marked with new trail signs before harvest operations begin. Also, no trucking or other equipment will be allowed on E. Perry Rd. between December 1 and April 1 because of the designated snowmobile trail that exists there. Post-harvest site prep followed by replanting red pine seedlings. Possible herbicide application 1 - 3 years after planting to release red pine seedlings from vegetative competition. Also, plant some red oak seedlings throughout the stand.

SitePrep. Roller Chopping: SitePrep. Trenching: Planting, Initial Plant: Monitoring, Artificial Regen(1vr): Pesticide, Skidder/Mechanical Next Step **Treatments:** 

Acceptable Fully stocked planted red pine seedlings.

Regen:

Other

Comment:

03/09/2017 **Proposed Start Date:** 

4211 - Planted 52159027-14.5 42110 - Planted Poletimber Draft Field 27 48 171-Harvest Even-Aged Clearcut Red Pine Red Pine **CCut** Well 200 Boundary

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

Specs:

Prescription HARVEST ALL TREES WITHIN THE STAND 2" AND GREATER AT DBH, EXCEPT ANY INCIDENTAL OAK OR HEMLOCK. NO UN-HARVESTEED RETENTION ISLANDS WILL BE LEFT BECAUSE OF THE STAND'S SMALLER ACREAGE. HARVEST AND REPLANT WITH ADJACENT STAND 26. CYCLE TRAIL RUNS THROUGH A PORTION OF STAND 27 ALONG THE NORTH EDGE. RELOCATE CYCLE TRAIL TO THE NORTHEAST, OUT OF THE HARVEST AREA, BEFORE HARVEST OPERATIONS BEGIN. CONSULT REC TRAIL SPECIALIST REGARDING TRAIL RE-ROUTE. ALSO, BECAUSE OF THE DESIGNATED SNOWMOBILE TRAIL THAT EXISTS ON E. PERRY RD., NO TRUCKING OR OTHER HARVEST EQUIPMENT WILL BE ALLOWED ON E. PERRY RD. BETWEEN DECEMBER 1 AND APRIL 1. TOPS OF TREES MUST BE CHIPPED TO FACILITATE SITE PREP AND RE-PLANTING OPERATIONS THAT WILL FOLLOW HARVEST. POST-HARVEST SITE PREP INCLUDING TRENCHING AND POSSIBLE ROLLER-CHOPPING AND/OR BURNING AS NEEDED TO HELP REDUCE SLASH. HAND PLANT RED PINE SEEDLEINGS. POSSIBLE HERBICIDE APPLICATION MAY BE NEEDED ABOUT TWO YEARS AFTER PLANTING TO HELP SET BACK VEGETATIVE COMPETITION AND RELEASE RED PINE SEEDLINGS. CONTINUE TO MONITOR STAND FOR SEVERAL YEARS.

SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Pesticide, Skidder/Mechanical Next Step Treatments:

Acceptable A FULLY-STOCKED STAND OF PLANTED RED PINE SEEDLINGS.

Regen:

Other Comment:

**Proposed Start Date:** 10/01/2018

Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 159 s Year of Entry: 2019 t а **Treatment** Size Stand BA **Treatment Treatment Cover Type** Acres Stand Age **Approval** n Method Name CoverType Density Age Range Type Objective Structure Status d 6.9 310 - Herbaceous 28 52159028-NF Unspec NonForestMgt 310 -Draft Field Nonstocked Other - Specify Openland ified Herbaceous Boundary Openland **Habitat Cut: No Site Condition:** Prescription Mow, plant, burn, brush, or herbicide to maintain openings. Plant hard and soft mast. Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Comment 10/01/2018 **Proposed Start Date:** 4211 - Planted Draft Field 34 129 42311 - Planted Poletimber 48 1-50 Clearcut 52159034-Harvest Even-Aged Spruce, Mixed Red Pine Boundary **CCut** Poor Deciduous **Habitat Cut: No** Site Condition: Evaluated for Forest Health Prescription For the area that makes up the approximate western 2/3 of Stand 34, cut all trees 2" and larger except incidental oak or hemlock. Tops must be chipped to facilitate post-harvest site prep and re-planting operations. Post-harvest site prep, including trenching and possible rollerchopping Specs: and/or burning, followed by replanting to red pine. Monitor seedlings. Herbicide competing vegetation as needed 1 - 3 years after planting takes place. The eastern 1/3 of Stand 34 will remain un-harvested and in the existing sparse white spruce cover for retention/habitat purposes. Next Step SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Pesticide, Skidder/Mechanical Treatments: Acceptable A fully stocked stand of planted red pine seedlings. Regen: Other Comment: Proposed Start Date: 10/01/2018 35 52159035-18 4 4130 - Aspen Sawtimber 75 81-110 Harvest Clearcut 413 - Aspen Even-Aged Draft Field **CCut** Well Boundary **Habitat Cut: No Site Condition:** Prescription Cut all trees 2" and larger at DBH except any incidental oak or hemlock. Whole tree chipping is required for this sale. Also, harvest operations are limited to non-winter harvesting only (April 1 - October 1. No un-harvested retention islands will be left due to small stand acreage. Follow Specs: BMP guidelines for protecting Black Jack Creek, which flows along the north boundary of the stand, during timber sale prep. Allow for a 100' no cut buffer from stream. Monitoring, Natural Regen (Re-Inventory) Next Step Treatments: Acceptable A fully stocked stand of mixed aspen/northern hardwood species. Regen: Other These two harvest requirements are being utilized to attempt to reduce the likelihood of attracting elk into the sale area, which is adjacent to I-75, and potential elk/vehicle encounters. Comment: **Proposed Start Date:** 10/01/2018 52159038-NF 17.4 310 - Herbaceous Nonstocked Unspec NonForestMgt 310 -Draft Field **Brush Cutting** Openland ified Herbaceous Boundary Openland **Habitat Cut: No Site Condition:** Prescription Mow, plant, burn, brush, or herbicide to maintain openings. Plant hard and soft mast. Specs: Next Step Treatments: Acceptable Regen:

10/01/2018

Other Comment:

**Proposed Start Date:** 

Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 159 Year of Entry: 2019

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n Treatment Acres Stand Size Stand BA Treatment Treatment Cover Type Age A d Name Cover Type Density Age Range Type Method Objective Structure	Status
39 52159039- 13.8 42110 - Planted Poletimber 54 171- Harvest Systematic 4211 - Planted Even-Aged RPRowThin Red Pine Well 200 Thinning Red Pine	Draft Field Boundary

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

Specs:

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Prescription Thin every third row of red pine. Also, cut and leave on site, any hardwood or aspen trees, except oak, that block the movement of equipment in the designated cut rows. Wood will have to be forwarded about a 1/4 mile to the north to the grass opening, where the landing will be located. The forwarders will travel though a narrow strip of state-owned property which is fairly flat, located between the east private property line and the west edge of Stand 36 (C6). This skid row will not be suitable for truck traffic, however, because of a probable perched water table. Winter harvest is possible but would require about 21/2 miles of snow plowing on Shire Rd. Apply bark-slip restriction.

Next Step **Treatments:** 

Acceptable N/A

Regen:

Other Lesser quality stand, never been treated because of difficult access. Many smaller diameters, but enough good quality crop trees to justify thinning treatment. A couple areas of pocket mortality are also present. Adjacent to I-75. Comment:

**Proposed Start Date:** 

10/01/2018

**Total Treatment Acreage Proposed:** 

260.4

Compartment: 159

Gaylord Mgt. Unit

Donald Stacks : Examiner Year of Entry: 2019

Availa	ability for	Managemer	nt						
Total	Acres	Acres Avail	Acres	D	omina	nt Site	e Con	ditions	S
Acres	Available	With Condition	Not Available		5C	5F	2G	3J	5E
211	155	53	3	Aspen	53				3
33	0	0	33	Cedar			8	25	
39	35	0	4	Herbaceous Openland					4
53	53	0	0	Low-Density Trees					
15	0	0	15	Lowland Aspen/Balsam Poplar			15		
16	0	0	16	Lowland Conifers			16		
59	9	0	50	Lowland Mixed Forest			50		
7	7	0	0	Lowland Shrub					
1082	1070	0	12	Northern Hardwood		0			12
134	132	0	1	Red Pine					1
10	10	0	0	Upland Shrub					
55	0	55	0	Upland Spruce/Fir		55			
1,713	1,471	109	133	Total Forested Acres	53	56	89	25	19
	86%	6%	8%	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	3J: Water quality / BMPs (stream, river, or lake)	25	5F: Evaluated for Forest Health Considerations	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified
(	Comments:						
2	Available	5F: Evaluated for Forest Health Considerations	37	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						

# Report 4 – Site Conditions

Gaylord Mgt. Unit

Donald Stacks : Examiner

Compartment: 159 Year of Entry: 2019

3	Available	5F: Evaluated for Forest Health Considerations	19	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	16	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	5E: Long-Term Retention	12	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
9	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

# Report 4 – Site Conditions

Gaylord Mgt. Unit

Compartment: 159 Year of Entry: 2019 **Donald Stacks: Examiner** 

10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified				
C	Comments:										
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	20	Unspecified	Unspecified	Unspecified	Unspecified				
C	comments:										
15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	65	Unspecified	Unspecified	Unspecified	Unspecified				
C	comments:										
32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified				
С	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
Comments				

Gaylord Mgt. Unit Compartment: 159
Year of Entry 2019



## 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.

Conservati Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area				
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen corstocked trout populations and those of other coldwater fish conditions for coldwater fishes may occur in Michigan lakes groundwater inflows, or are located in colder (northern) area Director's action and designated as trout resources by Fisher	species to persist from year to year. Suitable if they are relatively deep, have substantial as of the state. Such lakes are established by				
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action designated as trout resources by Fisheries Order 210.					
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosyste influences the aquatic ecosystem and vice-versa. Because streams and open water wetlands, riparian areas harbor a homeometries are ecologically and socially significant in their as aesthetics, habitat, bank stability, timber production, and	of the unique conditions adjacent to lakes, high diversity of plants and wildlife. Riparian effects on water quality and quantity, as well				

s t	Gaylor	Gaylord Mgt. Unit				Stands Compartment: 159 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4110 - Sugar Maple Association	Poletimber Well	205.0	86	81-110	Stand was broken up into four separate timber sales and thinned in 2000 and 2011. Stand now consists of mostly sugar maple and basswood poletimber, with scattered small sawlogs also present. Present BA is about 85 sq. ft. Heavy mixed hardwood regen present in most areas. Cycle trail runs through stand. Possible treatment in 20 years. Adjacent to Shire Rd.
2	4139 - Aspen, Mixed Deciduous	Sapling Well	47.1	4	Immature	Stand consists of mixed aspen and hardwood that was harvested in 2013. Fairly consistent regen. There are also scattered areas of lower stocking present. Good habitat.
4	6123 - Lowland Fir	Poletimber Medium	16.1	81	1-50	LESSER STOCKED (BA 50 SQ. FT.) BALSAM FIR POLETIMBER, WITH SCATTERED CEDAR AND BLACK SPRUCE ALSO PRESENT, ON A WET SITE. DOES PROVIDE SOME THERMAL COVER.
5	4112 - Maple, Beech, Cherry Association	Poletimber Well	24.2	84	81-110	NORTHERN HARDWOOD POLETIMBER, MOSTLY RED MAPLE. NICE CROP TREES PRESENT. THINNING WAS COMPLETED IN 2012. BA IS PRESENTLY ABOUT 85 SQ. FT.
7	4110 - Sugar Maple Association	Sawtimber Well	150.0	91	81-110	STAND WAS THINNED IN 2000-2001. RESIDUAL TIMBER LOOKS VERY GOOD. BA IS PRESENTLY ABOUT 90 SQ. FT. POSSIBLE TREATMENT IN 20 YEARS. STILL SOME LIVE ASH AND BEECH PRESENT.
8	4139 - Aspen, Mixed Deciduous	Sapling Well	16.7	5	Immature	MIXED QUAKING ASPEN/NORTHERN HARDWOOD REGEN FROM 2012 FINAL HARVEST. SOME SPARSE AREAS OF REGEN EXIST PRESENTLY THAT SHOULD FILL IN OVER TIME.
9	4119 - Mixed Northern Hardwoods	Sapling Poor	23.2	7	Immature	This stand was part of the red pine final harvest of Stand 20 from 2010. This portion was not prepped and replanted to red pine. It also includes 2 red pine sawtimber retention areas that were left when the Stand 20 final harvest occurred. Stand consists of mostly sparse, young northern hardwood and upland brush regen presently.
10	4116 - Mixed N. Hardwood - Aspen	Sapling Well	26.2	28	Immature	MIXED REGEN OF NORTHERN HARDWOOD, JACK PINE, ASPEN, AND RED PINE FROM 1989 FINAL HARVEST. AREAS OF LITTLE TO NO REGEN. AREAS OF UPLAND BRUSH.
11	4130 - Aspen	Poletimber Medium	4.7	50	1-50	SMALL MIXED STAND OF ASPEN AND UPLAND BRUSH, ADJACENT TO SHIRE RD. STAND IS ADJACENT TO A YOUNG AGED STAND TO THE EAST. DELAY TREATMENT UNTIL NEXT YOE. WITH SMALL ACREAGE AND LOW VOLUME TAKEN INTO CONSIDERATION, THIS IS ALSO A GOOD STAND TO LEAVE FOR BIODIVERSITY REASONS.
12	4130 - Aspen	Poletimber Well	22.2	27	51-80	GOOD QUALITY ASPEN STAND IN TRANSITION FROM SAPS TO POLETIMBER, FROM 1990 FINAL HARVEST. ALLEN CREEK RD. RUNS THROUGH STAND. CURRENT BA IS ABOUT 60 SQ. FT. POSSIBLE HARVEST IN ABOUT 20 - 30 YEARS.

S t	Gaylord	d Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 159 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	9.3	55	111-140	Stand consists of a mix of primarily balsam fir, quaking aspen, and cedar. Site appears to be not as poorly drained as many stands are with this specie composition. Stand does presently provide wildlife thermal cover. Relatively small acreage. Manage this stand for a mix of aspen/balsam fir. Stand is still fairly vigorous. Present BA is about 115. With other stands already prescribed for final harvest this YOE, hold this stand 10 - 20 years before treatment.
15	4110 - Sugar Maple Association	Poletimber Well	110.5	70	81-110	Northern hardwood poletimber, mostly sugar maple and basswood. Smaller diameters presently. Scattered aspen throughout stand. BA is about 90 Sq. Ft. at present. Stand could possibly be thinned in about 20 years.
16	4139 - Aspen, Mixed Deciduous	Poletimber Well	19.6	49	51-80	Small narrow band of aspen/hardwood mix lying between the west edge of a small conifer swamp and the east edge of hardwood poletimber. Manage for aspen component. Delay treatment until next YOE for age/size class diversity and to meet MA harvest target.
17	4112 - Maple, Beech, Cherry Association	Sapling Medium	69.0	27	Immature	POCKETS OF DENSE HARDWOOD REGEN, MOSTLY BLACK CHERRY AND RED MAPLE, AND SCATTERED ASPEN CLONES, WITH OPEN GRASSY AREAS AND UPLAND BRUSH, FROM 1990 FINAL HARVEST. FAIRLY GOOD WILDLIFE COVER PRESENTLY. CLOSE TIMBER SALE ACCESS ROAD AT E. PERRY RD. BECAUSE OF TRASH DUMPING AND LARGE BONFIRE AREA.
19	4130 - Aspen	Sawtimber Well	49.4	59	51-80	MIXED ASPEN WITH LESSER AMOUNTS OF HARDWOOD, ADJACENT TO SHIRE AND PERRY RDS. LARGER DIAMETERS IN SOUTH 1/3 OF STAND, SMALLER TO NORTH. LOSS OF VIGOR OCCURRING IN SOME OF THE ASPEN. AVERAGE BA IS PRESENTLY ABOUT 75 SQ. FT. PRESCRIBE FINAL HARVEST THIS YOE WITH AN ASPEN MO.
20	42110 - Planted Red Pine	Sapling Well	90.2	4	Immature	FINAL HARVEST COMPLETED IN NOVEMBER 2010. THREE UNHARVESTED RED PINE RETENTION AREAS EXIST FORM ORIGINAL STAND. STAND HAS RECEIVED PRESCRIBED BURN 07/24/2012 AND ROLLER CHOPPING IN 09/12. STAND WAS TRENCHED 12/03/2012. STAND WAS HAND PLANTED TO RED PINE SEEDLINGS 05/15/2013. STAND WAS HERBICIDED IN 2014. 1,089 2.0 RED OAK SEEDLINGS WERE PLANTED IN 2015 AND WILL BE MONITORED. SURVIVAL AND GROWTH OF RED PINE SEEDLINGS HAS BEEN VERY GOOD, AND VEGETATIVE COMPETITION IS MINIMAL SINCE HERBICIDE WAS APPLIED. STAND IS DOING VERY WELL.
21	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	10.9	77	51-80	RED PINE SAWTIMBER AND MIXED HARDWOOD, MOSTLY POLETIMBER. SPARSE, SCATTERED QUAKING ASPEN IS ALSO PRESENT. ADJACENT TO RED PINE STAND (STAND 20) HARVESTED AND REPLANTED TO RED PINE THREE YEARS AGO. AVERAGE BA IS PRESENTLY ABOUT 80 SQ. FT.

S t	Gaylord	Gaylord Mgt. Unit			- Forested	Stands Compartment: 159 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4117 - Mixed N. Hardwood - Pine	Sapling Well	24.2	28	Immature	DENSE HARDWOOD REGEN FROM 1989 REMOVAL HARVEST. SCATTERED RED PINE SAWTIMBER PRESENT ALSO. MANAGE THIS STAND FOR HARDWOOD COMPONENT. LEAVE RED PINE UNHARVESTED FOR BIODIVERSITY. A LARGE STAND OF R3 (STAND 20) PRESENTLY EXISTS ADJACENT TO THE EAST.
23	4110 - Sugar Maple Association	Poletimber Well	216.9	90	51-80	LESSER QUALITY, LOWER STOCKED NORTHERN HARDWOOD, MOSTLY SUGAR MAPLE AND BASSWOOD. SCATTERED AREAS OF CONCENTRATED BEECH THROUGHOUT STAND. HEAVY HARDWOOD UNDERSTORY PRESENT. ROLLING TOPOGRAPHY WITH MULTIPLE STEEP SLOPES. PRESENT BA IS ABOUT 76 SQ. FT. POSSIBLE TREATMENT IN 20 - 30 YEARS.
24	4112 - Maple, Beech, Cherry Association	Poletimber Medium	30.4	80	1-50	SPARSE, LESSER QUALITY MIXED HARDWOOD, MOSTLY RED MAPLE. A MIX OF POLETIMBER/SAWLOGS. SUGAR MAPLE, BASSWOOD, QUAKING ASPEN, AND BEECH ALSO PRESENT, ALONG WITH SEVERAL CLUMPS OF BALSAM FIR POLETIMBER. PRESENT BA IS ABOUT 50 SQ. FT. CONSIDERING THAT ADJACENT STANDS TO THE EAST BEING PRESCRIBED FOR FINAL HARVEST THIS YOE, RESTART THIS STAND, ALONG WITH STAND 16 TO THE WEST, IN 10 YEARS TO ENHANCE AGE/SIZECLASS DIVERSITY WITHIN THIS COMPARTMENT. A MIX OF HARDWOOD/ASPEN WILL BE THE MO. ANOTHER POSSIBILITY WOULD BE HARVESTING STAND AND CONVERTING IT TO A RED PINE MO, EITHER THIS YOE OR IN 10 YEARS. ORV TRAIL RUNS THROUGH THE STAND.
26	42310 - Planted Spruce	Poletimber Medium	36.4	48	51-80	White spruce poletimber/small sawlogs from 1969 planting. Areas of non-stocked open areas throughout stand. Stand identified for SBW salvage in 2016. East half of stand will not be treated this YOE, but will possibly be prescribed for treatment in ten years. West half of Stand 26 prescribed for final harvest this year YOE with adjacent red pine Stand 27. Both treatment areas will be replanted to red pine seedlings. Minor topography to deal with in this stand. Current BA average is about 60 sq. ft. Cycle trail runs through Stand 26 and should be relocated to the northeast, out of the actual sale area. Also, a designated snowmobile trail exists on E. Perry Rd. Because of the trail, E. Perry Rd. will not be used for trucking or any other harvest operations between December 1 and April 1.
27	42110 - Planted Red Pine	Poletimber Well	14.5	48	171-200	SMALL RED PINE PLANTATION WITH SCATTERED WHITE SPRUCE, FROM 1969. POOR GROWTH AND FORM ON MOST TREES. MANY SUPPRESSED TREES PRESENT. STAND AVERAGES ABOUT 3-4 STICKS IN HEIGHT. CURRENT BA IS 200 SQ. FT. RE-START STAND 27 THIS YOE WITH ADJACENT WEST HALF OF STAND 26. MO IS RED PINE. CYCLE TRAIL RUNS THROUGH A PORTION OF STAND 27 ALONG THE NORTH EDGE. SIGN AND RELOCATE THIS TRAIL TO THE NORTHEAST OUTSIDE THE HARVEST AREA BEFORE HARVEST OPERATIONS BEGIN. CONSULT REC TRAIL SPECIALIST REGARDING TRAIL REROUTE. ALSO, A DESIGNATED SNOWMOBILE TRAIL EXISTS ON E. PERRY RD.

S	Gaylord	Gaylord Mgt. Unit			<ul><li>Forested</li></ul>	Stands Compartment: 159 Year of Entry: 2019
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
29	6120 - Lowland Cedar	Poletimber Well	25.0	119	111-140	CEDAR STAND WITH SCATTERED BALSAM FIR AND SPRUCE, ADJACENT S. SHIRE RD. BLACK JACK CR. RUNS THROUGH STAND. PROTECT WATER QUALITY OF BLACK JACK CREEK. NO HARVEST WILL BE PRESCRIBED. ALSO, SOIL IS TOO WET. GOOD THERMAL COVER FOR WILDLIFE. 1/15/2016. Stand was evaluated for SBW salvage but was not prescribed for the reasons listed in the above comments.
30	4130 - Aspen	Poletimber Well	16.7	37	51-80	Aspen poletimber from 1980 final harvest. Possible final harvest in 10 - 20 years along with Stand 32 adjacent to the east. Continue to manage this stand for aspen.
32	4130 - Aspen	Poletimber Well	10.6	60	51-80	MIXED ASPEN STAND ON THE NORTH SIDE OF BLACK JACK CREEK. YOUNGER AND SMALLER IN DIAMETER THAN A9 STAND TO SOUTH, WHICH IS BEING HARVESTED THIS Y.O.E. PRESENT BA IS ABOUT 80 SQ. FT. BUT THERE ARE AREAS OF LOWER STOCKING PRESENT. SCATTERED SPRUCE/FIR PRESENT. UPLAND BRUSH STAND ON STEEP SLOPE ADJACENT TO THE NORTH. HOLD THIS STAND 10 YEARS FOR AGE/CLASS DIVERSITY, THEN HARVEST WITH STAND 30 ADJACENT TO THE WEST. FOLLOW BMP GUIDELINES TO PROTECT BLACK JACK CREEK AT TIME OF HARVEST. CONTINUE TO MANAGE THIS STAND FOR ASPEN.
34	42311 - Planted Spruce, Mixed Deciduous	Poletimber Poor	18.9	48	1-50	White spruce poletimber/small sawlogs planted in 1969. Fairly sparse stocking with numerous open grassy areas in the east half of the stand. More densely stocked in the west half of the stand. BA averages about 30 sq. ft. Scattered mix hardwood/aspen also present. Stand was evaluated for SBW salvage in 2016. Prescribe for final harvest this YOE. Post harvest MO will be planted red pine. Harvest with adjacent Stand 35, which will also have a red pine MO.
35	4130 - Aspen	Sawtimber Well	24.2	75	81-110	MATURE MIXED ASPEN SAWLOGS AND A LESSER AMOUNT OF HARDWOOD POLETIMBER ADJACENT TO 1-75. CURRENT BA IS ABOUT 100 SQ. FT. ASPEN COMPONENT STARTING TO SHOW LOSS OF VIGOR. STAND WAS ORIGINALLY PRESCRIBED FOR FINAL HARVEST LAST Y.O.E., BUT PRESCRIPTION WAS REMOVED AT REQUEST OF WILDLIFE DIVISION DUE TO POTENTIAL ELK- VEHICLE HAZARD ON I - 75. PRESCRIBE FINAL HARVEST THIS YOE WITH AN ASPEN/HARDWOOD MO, UTILIZING CONTRACT SPECS THAT WILL POTENTIALLY REDUCE THE LIKELIHOOD OF ATTRACTING ELK TO THE SALE AREA.
36	6120 - Lowland Cedar	Poletimber Well	8.2	128	141-170	SMALL CEDAR STAND ADJACENT TO I-75 AND PRIVATE PROPERTY, WITH DRAINAGE RUNNING THROUGH STAND.
37	4110 - Sugar Maple Association	Poletimber Well	188.9	90	81-110	Lower stocked, lesser quality mixed northern hardwood on many rolling hills with some fairly steep slopes present. Heavy hardwood understory, mostly beech and sugar maple. Present BA is about 86 sq. ft. Mostly poletimber with lesser amounts of sawlogs. About 10 sq. ft. of BBD infected beech is found throughout the stand with higher amounts located in the NW corner. Beech salvage isn't practical because of the lower volume present and because of the difficult topography. Possible treatment in roughly thirty years.

s t	Gaylord Mgt. Unit			Report 7 – Forested Stands			Compartment: 159 Year of Entry: 2019	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		General Comments:	MICHIGAN . 8
39	42110 - Planted Red Pine	Poletimber Well	18.0	54	171-200	which has never been to Not great quality with small areas of pock enough better quality of final harvest. Becau prescribed with limit years, but was never pabout 190 sq. ft. Presignificant topograph makes it not possible	in transition from poletimber reated. Planted in 1963 adjalots of smaller diameter tree et mortality is present also. rop trees present to justify a use of difficult access, stand ing factor for thinning the las repped or sold for harvest. Is scribe for row thinning this Yoy on three sides of the plant for trucks to reach the sale at to reflect the longer skid dist	acent to I-75. s. A couple There are thinning vs. a has been t two entry Present BA is DE. There is ation which urea. Adjust
40	6130 - Fir, Aspen, Maple	Poletimber Medium	49.8	79	51-80	HARVEST. ADJACEN	FERS/ASPEN ON A SITE T IT TO I-75 AND RR GRADE IS ABOUT 60 SQ. FT.	
41	6112 - Lowland Aspen	Poletimber Medium	14.9	70	51-80	MATURE MIXED AS AND CEDAR, ADJA	D, WET STAND OF MOSTL PEN WITH SCATTERED BA CENT TO I-75 AND RR GRA Q. FT. TOO WET TO HARV	ALSAM FIR ADE. BA IS
43	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	13.4	70	51-80	STAND, ADJACEN	GE, MIXED NORTHERN HA IT TO I-75 AND RR GRADE. SENTLY. BA IS ABOUT 70 S	LOWER

PRESENTLY.

Compartment: 159 Year of Entry: 2019



Stand	Cover Type	Acres	Managed Site	General Comments:
3	310 - Herbaceous Openland	14.7	Yes	MANAGED WILDLIFE OPENING. PRESCRIBED FOR MECHANICAL OPENING MAINTENANCE. QUAKING ASPEN RETENTION ISLANDS.
6	320 - Upland Shrub	9.6	No	UPLAND SHRUBS AND ENCROACHING HARDWOOD/ASPEN SAPS. ORV TRAIL RUNS THROUGH THIS STAND.
13	622 - Lowland Shrub	1.1	No	LOWLAND BRUSH, MOSTLY TAG ALDER, ADJACENT TO ALLEN CREEK RD. STANDING WATER DURING SPRING.
18	330 - Low-Density Trees	15.8	No	SPARSE, SCATTERED HARDWOOD SAPS/POLES, MOSTLY BLACK CHERRY, AND SCATTERED RED PINE AND WHITE PINE SAPS AND POLES. AREAS OF UPLAND SHRUBS.
25	330 - Low-Density Trees	11.5	No	SPARSE, SCATTERED HARDWOOD SAPS/POLES, MOSTLY BLACK CHERRY AND UPLAND BRUSH.
28	310 - Herbaceous Openland	6.9	Yes	GRASS STAND WITH AUTUMN OLIVE PLANTED ALONG WEST AND SOUTH EDGES. WHITE SPRUCE ALSO PLANTED ALONG THE SOUTH EDGE OF THE STAND. GAS WELL TEST SITE BY AURORA ENERGY, LTD. WAS LOCATED IN THIS STAND.
31	330 - Low-Density Trees	18.8	No	GRASS STAND WITH SPARSE UPLAND BRUSH AND SCATTERED HARDWOOD, WHITE SPRUCE, AND RED PINE. PARTIALLY ON SOUTH-FACING SLOPE. ORV DAMAGE PRESENT. REC AND TRAIL PERSONNEL MAY CONSIDER RE-ROUTING A SEGMENT OF ORV TRAIL TO REDUCE ILLEGAL ACTIVITY IN THIS STAND. MINOR SOIL EROSION INTO BLACK JACK CREEK.
33	622 - Lowland Shrub	5.5	No	LOWLAND SHRUBS ON VERY WET SITE ADJACENT TO I-75.
38	310 - Herbaceous Openland	17.4	Yes	GRASS WITH SPARSE ENCROACHING HARDWOOD/UPLAND BRUSH. ADJACENT TO I-75. AUTUMN OLIVE IS PRESENT IN THE NORTH PART OF THE OPENING.
42	330 - Low-Density Trees	6.6	No	SCATTERED BLACK CHERRY SAPS AND SMALL POLETIMBER, WITH A COUPLE CLONES OF BIG-TOOTHED AND QUAKING ASPEN, AND SEVERAL CLUMPS OF BALSAM FIR SAPS/POLES. SCATTERED JUNIPER SHRUBS PRESENT ALSO. ADJACENT TO I-75 AND RR GRADE. LEAVE UN-TREATED AT THIS TIME.