

# **Compartment Review Presentation**

**Gaylord Forest Management Unit** 

Compartment 52062
Entry Year 2019
Acreage: 3,276
County Antrim

Management Area: Grayling Outwash

Revision Date: 2017-05-08

Stand Examiner: Lucas Merrick

**Legal Description:** 

T29N R5W Sections: 19, 20 and 29 - 32

#### **Identified Planning Goals:**

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

## Soil and topography:

The compartment is mostly flat with some rolling hills. The dominant soil type Kalkaska Sand. This soil type is excessively drained.

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

The compartment is primarily large and contiguous but is broken up by several private parcels in the northwest portions. This area has been extensively developed by the gas and oil industry with wells and pipelines common throughout the compartment.

## **Unique Natural Features:**

Red-shouldered and northern goshawk are known to occur in this compartment. Numerous loons have been documented to the south in Starvation lake, Twin Lake, Little Twin Lake, Pickerel Lake, Blue Lake and North Blue Lake. Lake herring also documented from Twin Lake. Bald eagles known to occur in the area.

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

Currently none known.

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

None at this time.

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

Sand Lake is found within the compartment.

#### Wildlife Habitat Considerations:

This compartment is primarily aspen, red pine, northern hardwoods and upland openings. Areas with aspen will be maintained in multiple age classes for diversity and benefits to wildlife. Upland openings will be treated to maintain and enhance their benefits to wildlife. Featured species include wild turkey, white-tailed deer, ruffed grouse, black bear, and woodcock.

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

The compartment occurs within the Antrim Shale gas play, near the southern margin of the current extent of production, and at the northern margin of the Niagaran reef trend. The compartment has been mostly developed for Antrim Shale gas and all state mineral rights are currently under lease and held by production. There may be some Niagaran potential in the compartment, but there were a couple of exploration wells drilled within the compartment in the 1970s targeting the Niagaran and both were dry holes. Based, on the driller's logs, the compartment appears to be off of the reef structure. There are active gas storage fields to the south, but these are in depleted Niagaran reef reservoirs. There does not appear to be good gas storage potential beneath the compartment. No sand and gravel pits occur within or within close proximity to the compartment. Sand and gravel potential appears to be good within the compartment.

#### **Vehicle Access:**

Vehicle access is excellent throughout by way of county roads forest 2-tracks and pipeline access roads. An effort has been made around Sand Lake to restrict vehicle by placing boulders, posts, gates, and planting trees.

#### **Survey Needs:**

There are potential needs in sections 19 and 30 for treatments adjacent to the private property.

# **Recreational Facilities and Opportunities:**

The Kalkaska ORV trail and Michigan Cross Country Cycle Trail are present in this compartment. Snowmobile trails #4 and #76 are found in this compartment. There is a parking lot and access site for Sand Lake. There is also a Snowmobile and ORV trail head located in the north along Mancelona Road. The North Country Trail can be found along the eastern portions of the compartment.

#### **Fire Protection:**

Access for resource protection is adequate. Pipeline pose a hazard for equipment. There is a potential for poison gas. The conifer component is not continuous and is broken up by roads, pipelines, and deciduous stands. Therefore a large scale extreme fire events would be rare with the majority of forest fires being under 20 acres.

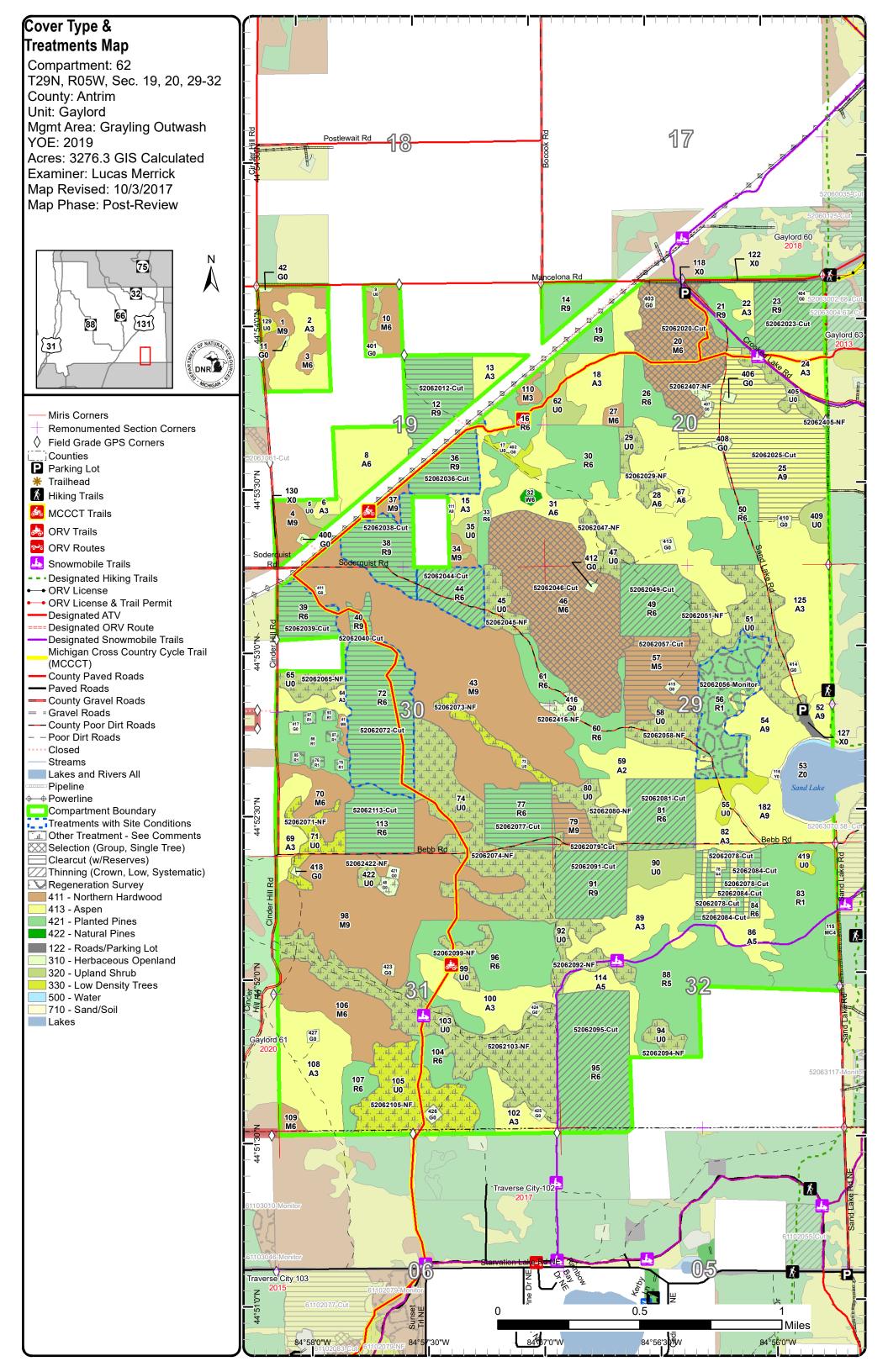
#### **Additional Compartment Information:**

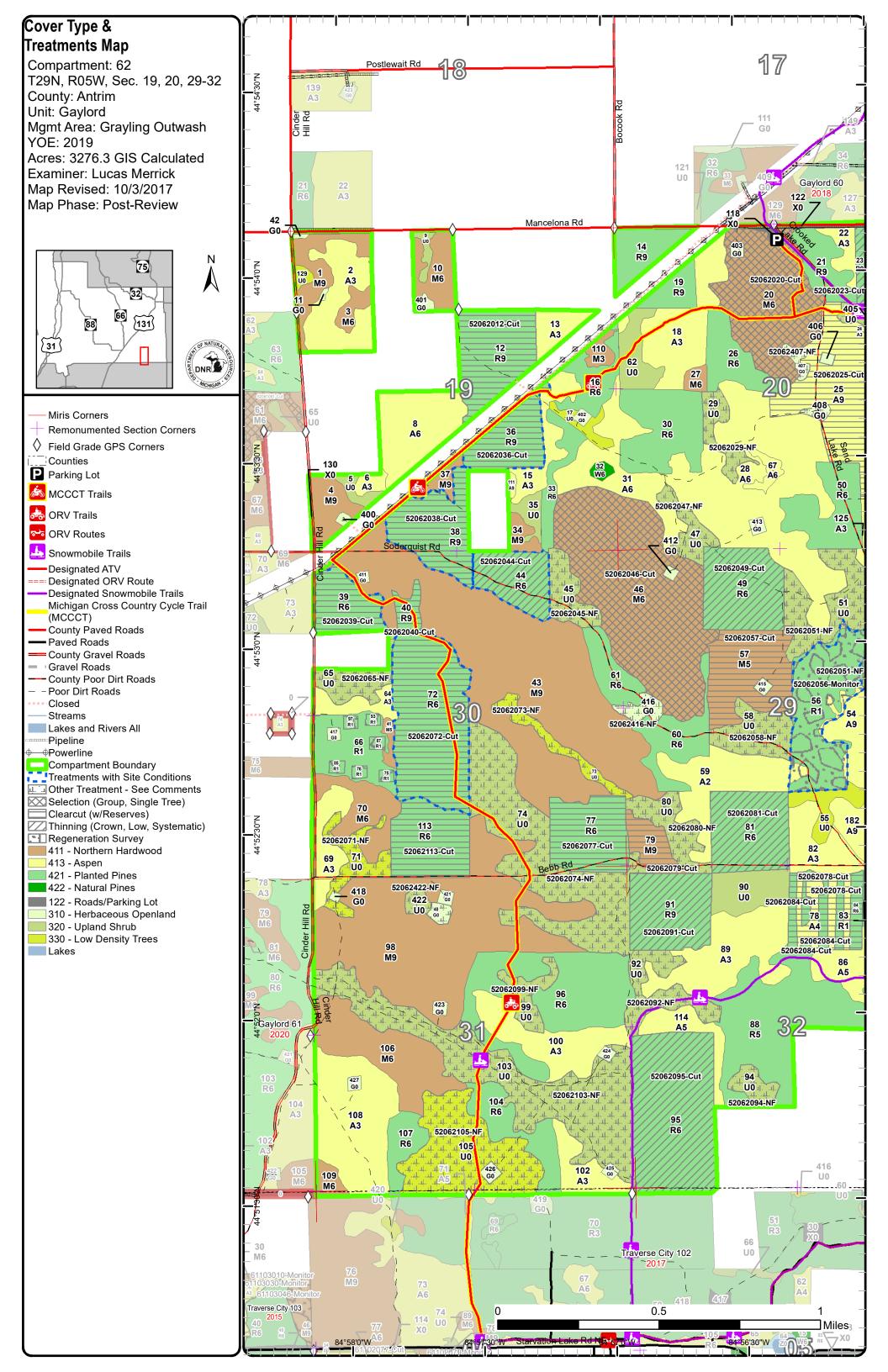
The following reports from the Inventory are attached:

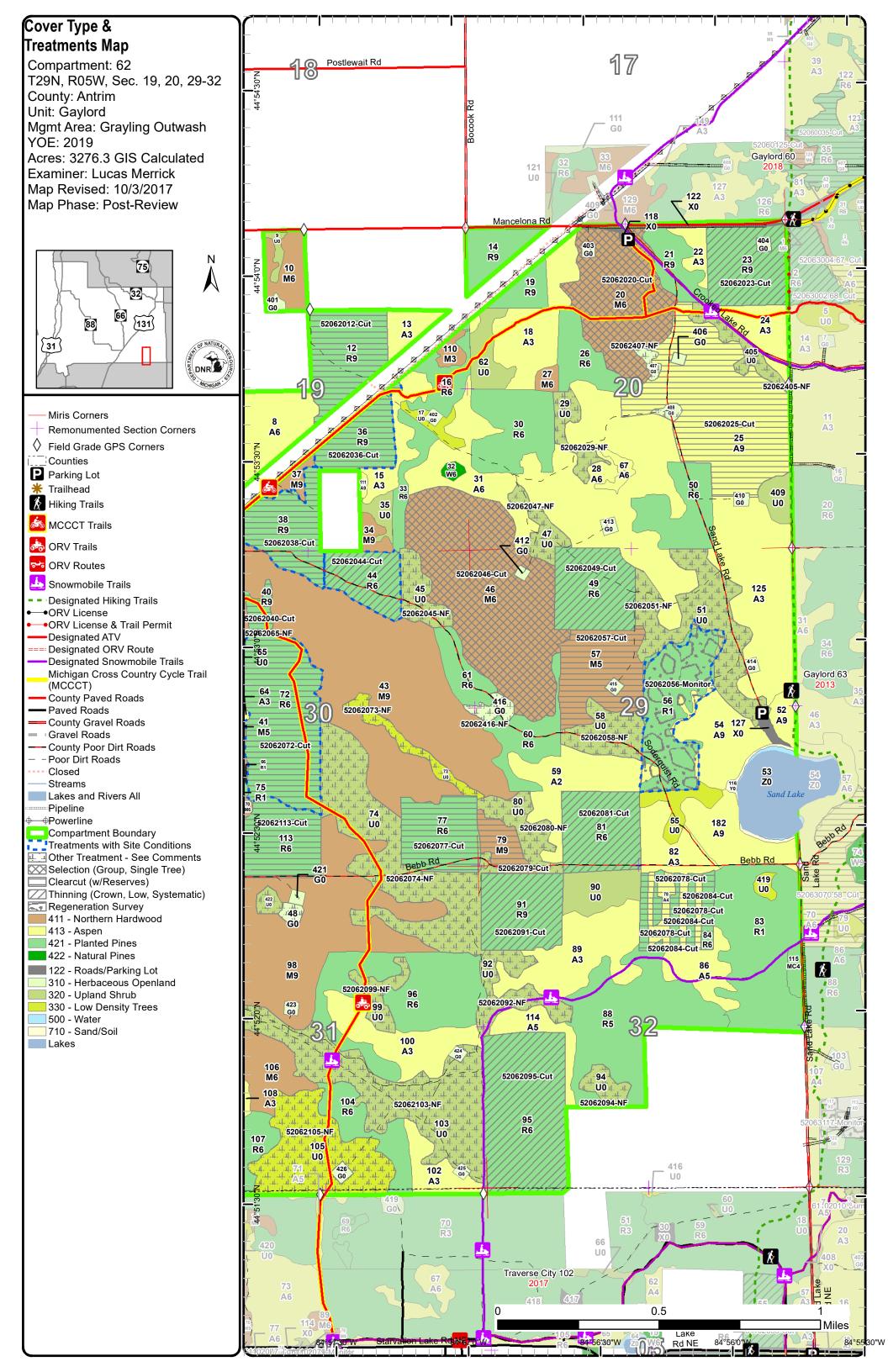
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

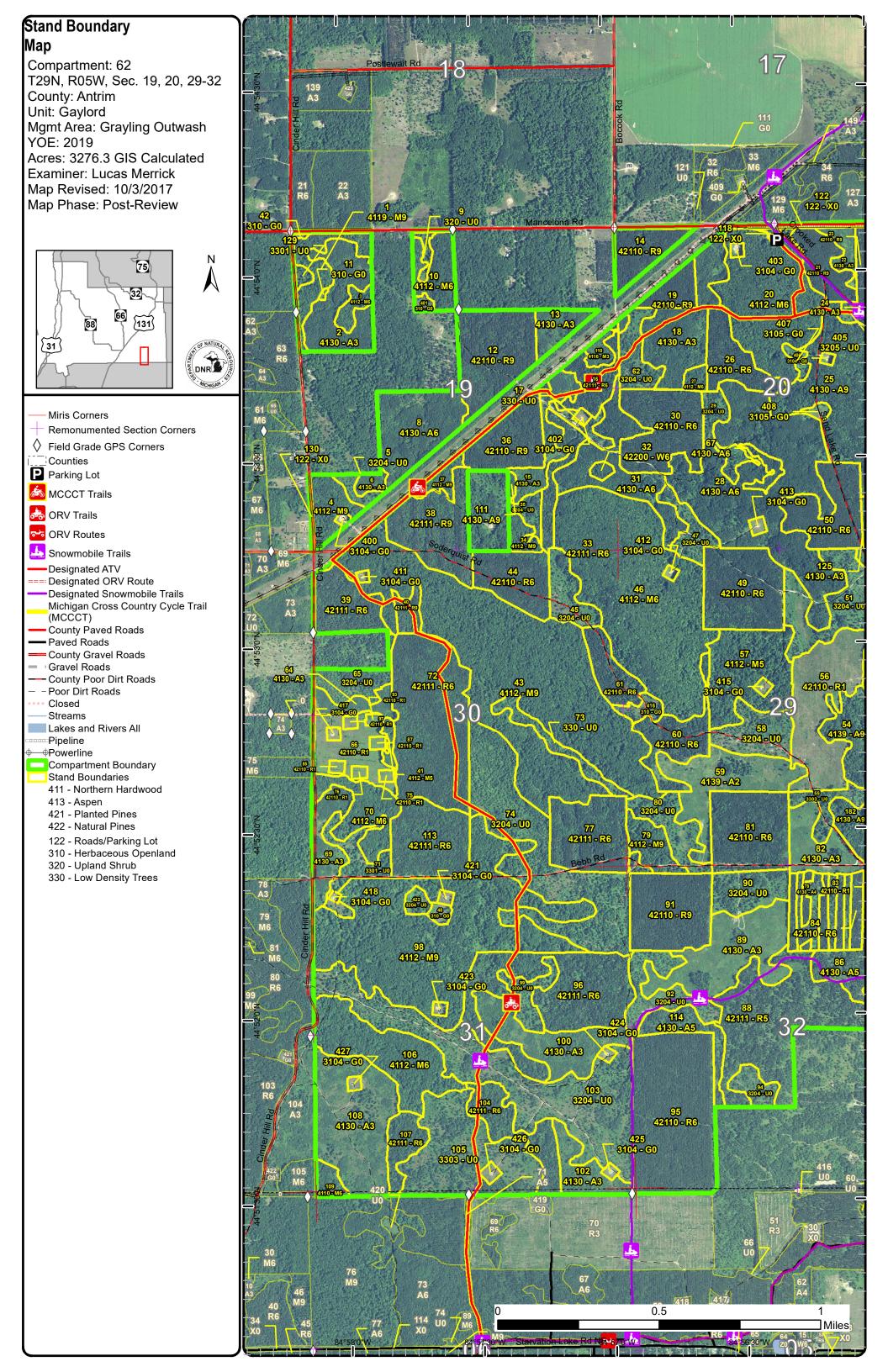
The following information is displayed, where pertinent, on the attached compartment maps:

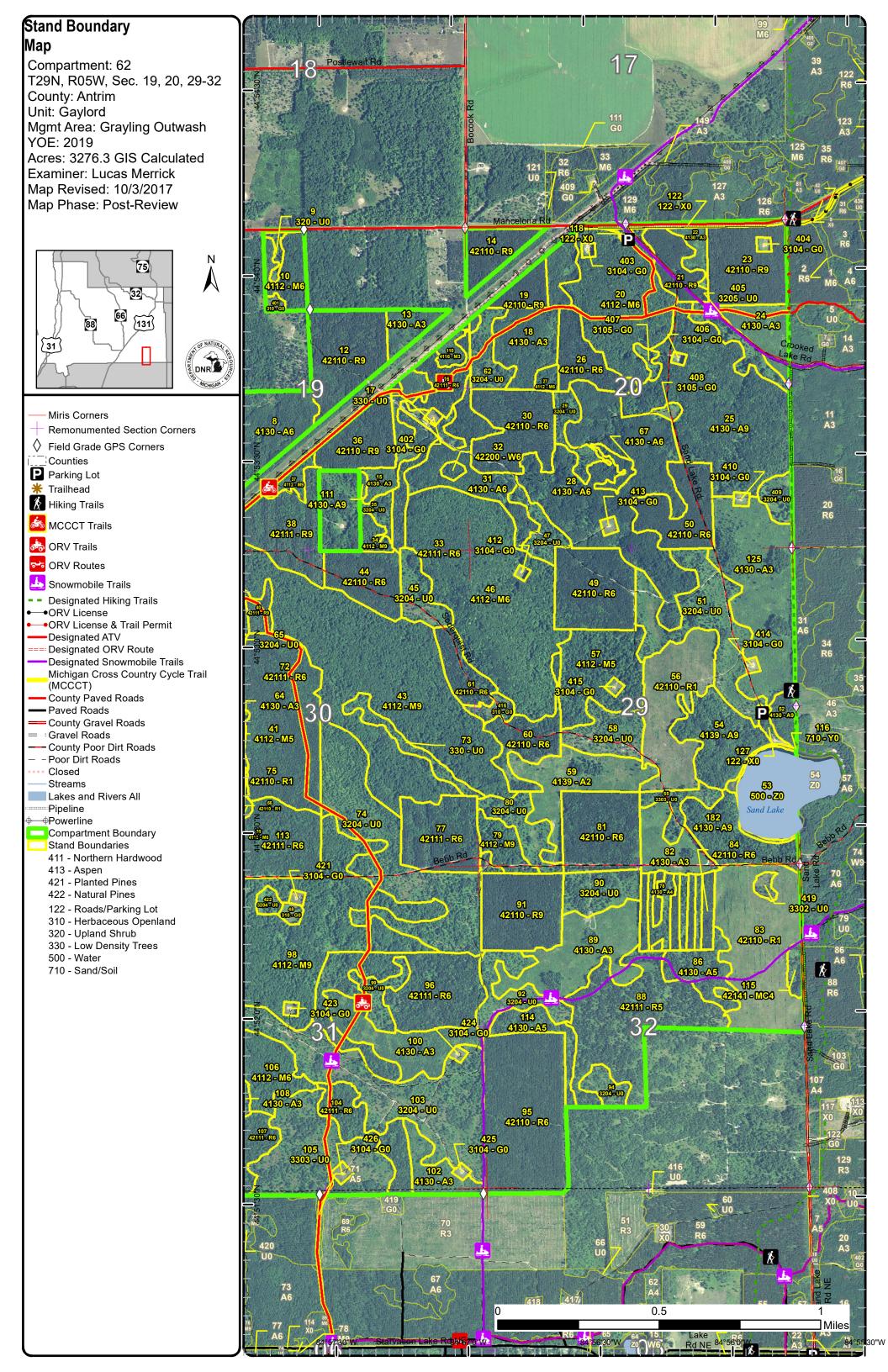
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

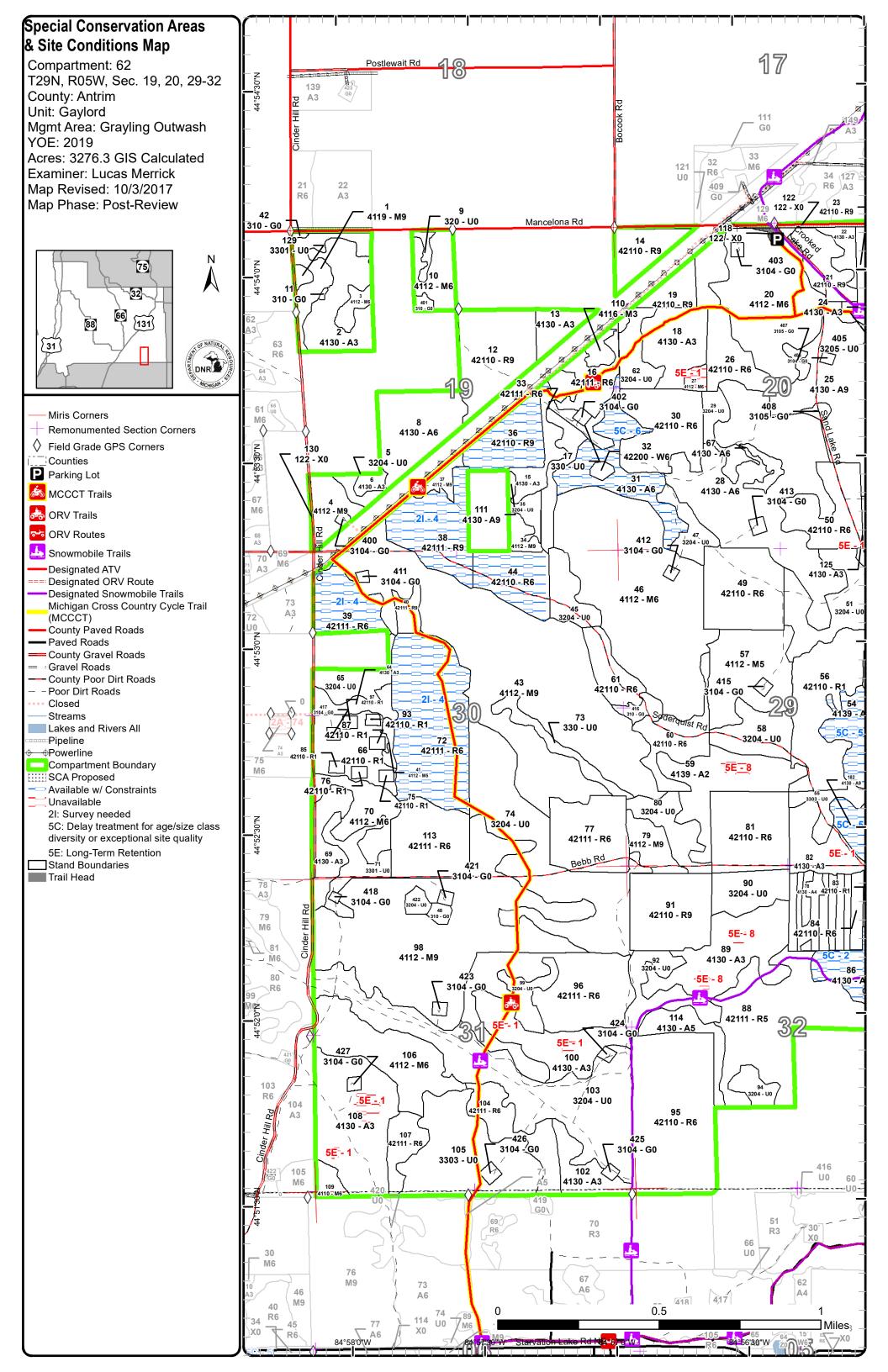


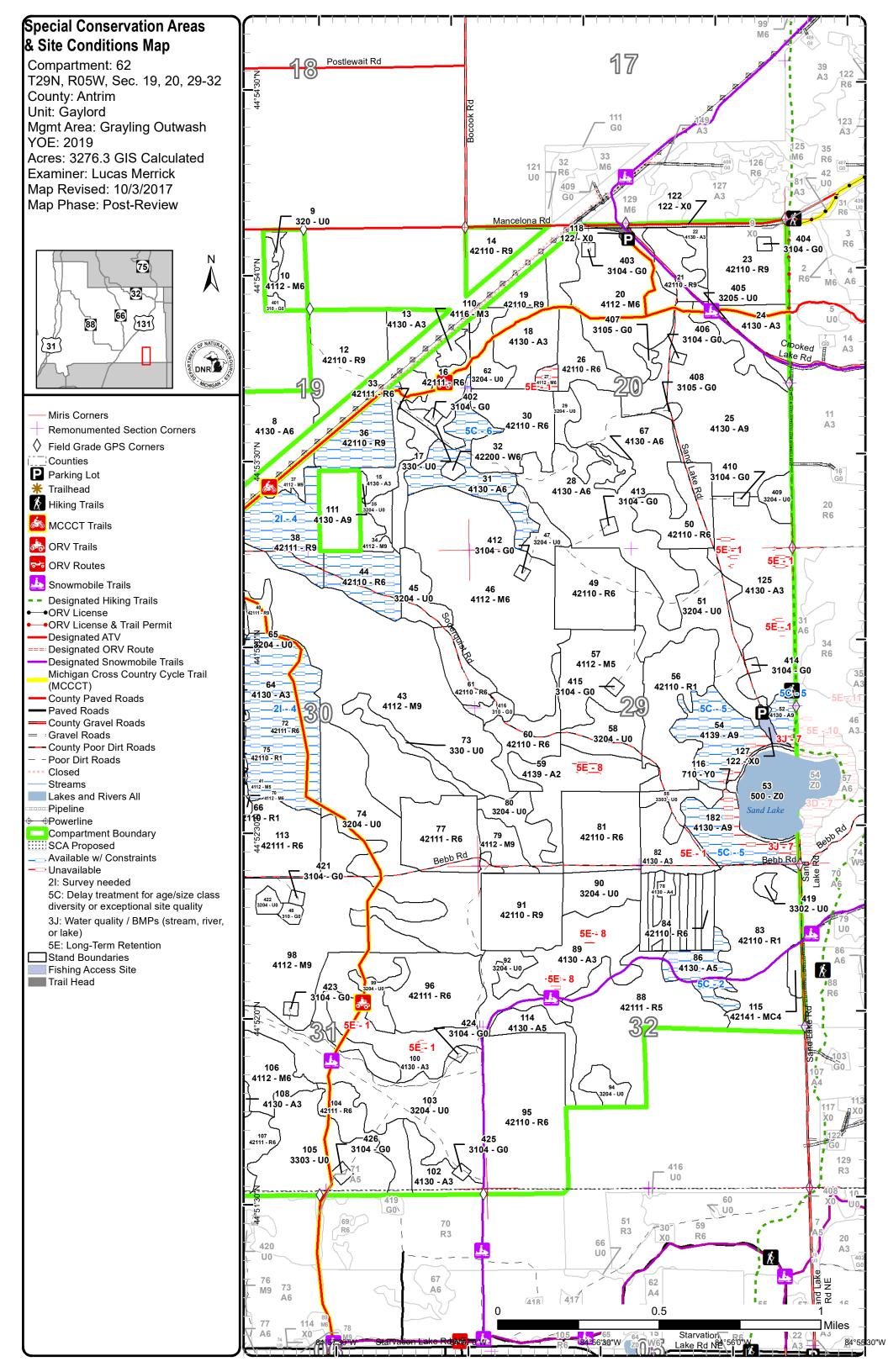












Gaylord Mgt. Unit

**Lucas Merrick : Examiner** 

Compartment 62 Year of Entry 2019



# Age Class

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Aspen	0	364	38	176	0	14	214	34	0	0	0	0	0	0	0	0	0	0	840
Herbaceous Openland	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36
Low-Density Trees	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104
Northern Hardwood	0	5	0	0	0	0	0	3	193	497	0	0	0	0	0	0	0	40	737
Planted Mixed Pines	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Red Pine	0	152	0	0	156	319	383	67	0	0	0	0	0	0	0	0	0	0	1076
Sand, Soil	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Upland Shrub	427	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	427
Urban	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Water	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
White Pine	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	618	521	38	176	161	333	599	104	193	497	0	0	0	0	0	0	0	40	3278



# **Report 2 – Treatment Summary**

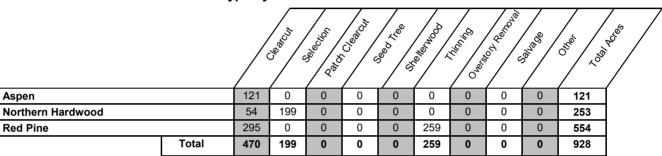
# Gaylord Mgt. Unit Year of Entry: 2019

#### **Acres of Harvest**

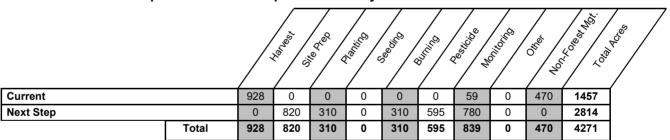
Compartment 62
Total Compartment Acres: 3,276

Commercial Harvest - 744 Harvests with Site Condition - 184 Next Step Harvest - 0 Habitat Cut - 0

# **Cover Type by Harvest Method**



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



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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
12	52062012-Cut	40.3	42110 - Planted Red Pine	Sawtimber Well	59	111- 140	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No Site Condition:** 

Prescription Remove all trees 2" DBH and greater. Leave minimal retention.

Specs:

SitePrep, Roller Chopping; Burn, Slash; Pesticide, Aerial; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, Next Step

Treatments: Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Acceptable Planted red pine with minimal deciduous inclusions.

Regen:

Chip harvest if markets allow. Protect ORV and snowmobile trails during operations. Account for safety along haul route and its intersections Other

Comment: with other recreational trails. Incorporate hard and soft mast within planting where opportunity allows.

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

4112 - Maple, 52062020-Cut 66.5 Poletimber 78 111-Harvest Group Selection 411 - Northern Draft Field Two-Aged Beech, Cherry 140 Well Hardwood Boundary Association

**Habitat Cut: No Site Condition:** 

Prescription Remove all beech 2" dbh and up from the stand. Exception: Leave 1 - 2 per acre for mast. Target large wolfy trees for mast or cavity trees.

Specs: Mark other timber for removal if needed for access.

Next Step SitePrep, Other - Specify

Treatments:

<u>Acceptable</u> Salvage harvest will likely result in dense beech regeneration - post harvest treatments will likely be necessary in order to promote a more

diverse hardwood regeneration component. Regen:

Other Protect snowmobile and ORV trails during operations. Account for safety along haul route and its intersections with other recreational trails. Do

not use the trail head for landing. Make sure stumps along snowmobile trail are either left high or cut flush. Comment:

Proposed Start Date: 10/01/2018

52062023-Cut Crown Thinning 37.2 42110 - Planted Sawtimber 60 141-Harvest 4211 - Planted **Draft Field** Red Pine Well 170 Red Pine Boundary

Site Condition: **Habitat Cut: No** 

Prescription Mark stand down to 100-120 BA. Do not remove aspen. Will be a lighter thinning with areas of walk through. Target trees of poor health and

form. Try to maximize potential on existing 10-12 inch trees with the idea of restarting this stand in 2029.

Next Step

Specs:

Treatments:

<u>Acceptable</u>

Regen:

Protect the walking trail from sale operations. Protect snowmobile and ORV trail during operations. Account for safety along haul route and its Other

intersections with other recreational trails. Comment:

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

52062025-Cut 105.9 4130 - Aspen Sawtimber 51 111-Harvest Clearcut with 4139 - Aspen, Even-Aged Draft Field Retention Well Mixed 140 Boundary Deciduous

**Habitat Cut: No Site Condition:** 

Prescription Remove all trees 2' and up. Follow retention guidelines. Consider leaving retention along the walking trail. Protect the walking trail from sale operations. Protect snowmobile and ORV trail during operations. Account for safety along haul route and its intersections with other recreational Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

Acceptable A stand of aspen with mixed hardwoods at minimal acceptable stocking. If regen fails discuss options with other divisions and stake holders.

Regen:

**Other** Comment:

Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 62 S Year of Entry: 2019 t а **Treatment Cover Type** Treatment Acres Stand Size Stand BA Treatment Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 52062029-NF 10.2 3204 - Mast 310 -Draft Field 29 Nonstocked Unspec NonForestMgt Other - Specify Producing Shrub 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: Other Comment: 10/01/2018 **Proposed Start Date:** Draft Field 25.6 42110 - Planted 4211 - Planted 52062036-Cut Sawtimber 111-Harvest Clearcut with Even-Aged Red Pine Well 140 Retention Red Pine Boundary **Habitat Cut: No** Site Condition: Survey Needed Prescription Remove all trees 2" and greater. Leave minimal retention. Specs: SitePrep, Trenching; Planting, Initial Plant; SitePrep, Roller Chopping; Burn, Slash; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Next Step Regen(3yr); Pesticide, Aerial Treatments: Acceptable Planted red pine with minimal deciduous inclusions. Regen: Chip harvest if markets allow. Protect ORV and snowmobile trails during operations. Account for safety along haul route and its intersections Other Comment: with other recreational trails. Incorporate hard and soft mast within planting where opportunity allows. Proposed Start Date: 10/01/2018 4211 - Planted 52062038-Cut 36.5 42111 - Planted Sawtimber 59 81-110 Harvest Clearcut with Even-Aged **Draft Field** Red Pine, Mixed Well Retention Red Pine Boundary Deciduous **Habitat Cut: No** Site Condition: Survey Needed Prescription Final harvest all trees 2" DBH and greater. Leave minimum retention Specs: SitePrep, Roller Chopping; Burn, Slash; Pesticide, Aerial; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, Next Step Treatments: Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Acceptable planted red pine with minimal inclusions of deciduous species. Regen: Chip harvest if markets allow. Protect snowmobile trail during operations. Account for safety along haul route and its intersections with other Other recreational trails. Incorporate hard and soft mast within planting where opportunity allows. Comment: **Proposed Start Date:** 10/01/2018 52062039-Cut 21.9 42111 - Planted Poletimber 48 81-110 Harvest Clearcut with 4211 - Planted **Draft Field** Even-Aged Red Pine Red Pine, Mixed Well Retention Boundary Deciduous **Habitat Cut: No** Site Condition: Survey Needed

Prescription Remove all trees 2" DBH and greater. Leave minimum retention along edge of stand.

Specs:

Burn, Slash; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Next Step

Treatments: Regen(3yr); SitePrep, Roller Chopping; Pesticide, Aerial

Acceptable Planted red pine with minimal Deciduous inclusions.

Regen:

Other Chip harvest if markets allow. Protect ORV and snowmobile trails during operations. Account for safety along haul route and its intersections

with other recreational trails. Incorporate hard and soft mast within planting where opportunity allows. Comment:

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

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Compartment: 62

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
40	52062040-Cut	6.3	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	59	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No Site Condition:** 

Prescription Remove all trees 2" DBH and greater. Do not leave retention due to small size. Harvest with surrounding red pine stands. Specs:

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

Acceptable Planted red pine with minimal inclusions of deciduous species.

Regen:

Chip harvest if markets allow. Protect ORV and snowmobile trails during operations. Account for safety along haul route and its intersections Other

Comment: with other recreational trails. Incorporate hard and soft mast within planting where opportunity allows.

Proposed Start Date: 10/01/2018

42110 - Planted Poletimber 4211 - Planted **Draft Field** 52062044-Cut 24 8 141-Harvest Systematic Even-Aged Red Pine Well 170 . Thinning Red Pine Boundary

**Habitat Cut: No** Site Condition: Survey Needed

Prescription Remove every third row of pine. Remove hardwood component found within the designated removal rows only. Protect snowmobile trail during Specs: operations. Account for safety along haul route and its intersections with other recreational trails.

Next Step Treatments:

Acceptable Not a regeneration harvest.

Regen:

Other If operability is questionable consider taking two rows and leaving four.

Comment:

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

310 -45 52062045-NF 143 3204 - Mast Nonstocked Unspec NonForestMat Other - Specify **Draft Field** Producing Shrub 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:

<u>Other</u> Protect ORV and snowmobile trails during operations

Comment

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

Draft Field 52062046-Cut 132.8 4112 - Maple, Poletimber 82 81-110 Harvest **Group Selection** 411 - Northern Two-Aged Beech, Cherry Well Hardwood Boundary

Association

**Habitat Cut: No Site Condition:** 

Prescription Remove all beech 2" dbh and up from the stand. Exception: Leave 1 - 2 per acre for mast. Target large wolfy trees for mast or potential cavity Specs:

trees. Mark other timber for removal if needed for access.

Next Step SitePrep, Other - Specify

Treatments:

<u>Acceptable</u> Salvage harvest will likely result in dense beech regeneration - post harvest treatments will likely be necessary in order to promote a more

diverse hardwood regeneration component. Regen:

Other Protect snowmobile and ORV trails during operations. Account for safety along haul route and its intersections with other recreational trails.

Comment:

Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 62 s Year of Entry: 2019 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 52062047-NF 10.9 3204 - Mast NonForestMgt Other - Specify 310 -Draft Field 47 Nonstocked Producing Shrub 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: Other Protect ORV and snowmobile trails during operations Comment: 10/01/2018 **Proposed Start Date:** Draft Field 2.5 310 - Herbaceous Nonstocked Unspec NonForestMgt Other - Specify 310 -52062048-NF 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: Other Protect ORV and snowmobile trails during operations Comment: **Proposed Start Date:** 10/01/2018 49 52062049-Cut 42110 - Planted Poletimber 48 141-4211 - Planted Draft Field 39.3 Harvest Systematic Even-Aged Red Pine Well 170 Thinning Red Pine Boundary **Habitat Cut: No Site Condition:** Prescription Remove every third row of red pine. Remove hardwood component found within the designated harvest rows. Protect snowmobile trail during operations. Account for safety along haul route and its intersections with other recreational trails. Specs: Next Step Treatments: Acceptable Not a regeneration harvest Regen: Other If operability between rows is a concern, consider taking 2 and leaving 4. Comment: **Proposed Start Date:** 10/01/2018 52062051-NF 49.8 3204 - Mast Unspec NonForestMgt Other - Specify 310 -Draft Field Nonstocked Producing Shrub 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

Protect ORV and snowmobile trails during operations. Protect parking area and do not compromise vehicle barriers.

Comment:

Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 62 s Year of Entry: 2019 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 56 52062056-42110 - Planted Sapling Artificial 4211 - Planted 52 7 3 Immatu Monitoring Even-Aged Field Boundary Red Pine Regen(3yr) Red Pine Monitor **Habitat Cut: No** Site Condition: Age-Class or Site Quality Prescription Year 3 regen check Specs: Next Step Treatments: Acceptable A fully stocked red pine plantation. Regen: Other Comment: **Proposed Start Date:** 10/21/2016 41.2 70 52062057-Cut 4112 - Maple, Poletimber 1-50 Harvest Clearcut with 4116 - Mixed N. Even-Aged **Draft Field** Beech. Cherry Hardwood -Boundary Medium Retention Association Aspen **Habitat Cut: No** Site Condition: Prescription Remove all trees 2" DBH and up. Leave minimal retention (3-5%). Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Stand already has low stocking. A northern hardwood stand with pockets of aspen at minimal stocking is acceptable. Regen: Other Protect snowmobile trail during operations. Account for safety along haul route and its intersections with other recreational trails. Comment: Proposed Start Date: 10/01/2018 52062058-NF 310 -Draft Field 58 19.9 3204 - Mast Nonstocked Unspec NonForestMqt Other - Specify Producing Shrub 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** Protect ORV and snowmobile trails during operations

Comment:

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

310 -52062065-NF 13.6 Unspec NonForestMgt **Draft Field** 3204 - Mast Nonstocked Other - Specify Producing Shrub ified Herbaceous Boundary

Openland

**Site Condition: Habitat Cut: No** 

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

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Protect ORV and snowmobile trails during operations

Comment:

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

Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 62 s Year of Entry: 2019 t а **Treatment** Stand **Treatment Treatment Cover Type** Acres Stand Size BA Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 15.2 3301 - Low Density Unspec NonForestMqt 52062071-NF Nonstocked 310 -Draft Field 71 Other - Specify Deciduous Trees 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: Protect ORV and snowmobile trails during operations Other Comment: 10/01/2018 **Proposed Start Date:** 42111 - Planted Draft Field 75.1 Poletimber 48 4211 - Planted 52062072-Cut 141-Harvest Clearcut with Even-Aged Red Pine. Mixed Well 170 Retention Red Pine Boundary Deciduous **Habitat Cut: No** Site Condition: Survey Needed Prescription Remove all trees 2" DBH and greater. Leave minimal retention along edge of stand. Specs: Next Step SitePrep, Roller Chopping; Pesticide, Aerial; Burn, Slash; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, <u>Treatments:</u> Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Acceptable Planted red pine with minimal deciduous inclusions. Regen: Chip harvest if markets allow. Protect ORV and snowmobile trails during operations. Account for safety along haul route and its intersections Other with other recreational trails. Incorporate hard and soft mast within the planting where possible. Comment: **Proposed Start Date:** 10/01/2018 52062073-NF 10.6 330 - Low-Density Nonstocked 0 Unspec NonForestMgt Other - Specify 310 -Draft Field Herbaceous Trees ified 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 Protect ORV and snowmobile trails during operations Comment: **Proposed Start Date:** 10/01/2018 52062074-NF 86.3 3204 - Mast Unspec NonForestMgt Other - Specify 310 -Draft Field Nonstocked Producing Shrub ified Herbaceous Boundary Openland **Habitat Cut: No** Site Condition:

Acceptable Regen:

Specs:

Next Step

Treatments:

Other Protect ORV and snowmobile trails during operations

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

Comment:

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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
77	52062077-Cut	34.5	42111 - Planted Red Pine, Mixed	Poletimber Well	55	111- 140	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No Site Condition:** 

Prescription Remove all trees 2" and greater. Focus retention in the NE corner of stand.

Specs:

Next Step SitePrep, Roller Chopping; Pesticide, Aerial; Burn, Slash; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring,

<u>Treatments:</u> Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Acceptable planted red pine with minimal deciduous inclusions.

Regen:

Incorporate hard and soft mast species within planting when possible. Chip harvest if markets allow. Protect ORV and snowmobile trails during Other

operations. Account for safety along haul route and its intersections with other recreational trails. Comment:

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

15.0 4130 - Aspen Poletimber 55 1-50 4211 - Planted **Draft Field** 52062078-Cut Harvest Clearcut with Even-Aged Retention Red Pine Poor Boundary

**Habitat Cut: No Site Condition:** 

Prescription Remove all trees 2" and up. Leave minimum retention along edge of sale. Incorporate hard and soft mast within planting where possible. Specs:

SitePrep, Roller Chopping; Pesticide, Aerial; Burn, Slash; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, Next Step

Treatments: Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Acceptable Planted red pine with minimal deciduous inclusions.

Regen:

Other Chip harvest if markets allow. Protect snowmobile trail during operations. Account for safety along haul route and its intersections with other

recreational trails. Comment:

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

52062079-Cut 12.4 4112 - Maple, Sawtimber 89 111-Harvest Clearcut 411 - Northern Even-Aged **Draft Field** Beech, Cherry Well 140 Hardwood Boundary

Association

**Habitat Cut: No Site Condition:** 

Prescription Remove all trees 2" and up. Due to small size do not leave retention.

Specs:

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Maple, basswood, aspen, cherry, and mixed conifer at minimal stocking.

Regen:

Other Protect snowmobile trail during operations. Account for safety along haul route and its intersections with other recreational trails.

Comment:

Proposed Start Date: 10/01/2018

52062080-NF 16.8 3204 - Mast Unspec NonForestMgt 310 -Draft Field Nonstocked Other - Specify

Producing Shrub 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:

Protect ORV and snowmobile trails during operations

**Other** Comment:

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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
81	52062081-Cut	38.2	42110 - Planted Red Pine	Poletimber Well	48	141- 170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

**Habitat Cut: No Site Condition:** 

Prescription Remove every third row of red pine, Remove the hardwood component found within the designated harvest rows. Protect snowmobile trail during operations. Account for safety along haul route and its intersections with other recreational trails. Specs:

Next Step **Treatments:** 

Acceptable Not a regeneration harvest

Regen:

Other If operability within rows is a concern consider taking 2 and leaving 4.

Comment:

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

84 52062084-Cut 20.3 42110 - Planted Poletimber 55 141-Harvest Clearcut with 4211 - Planted Even-Aged Draft Field Red Pine Well 170 Retention Red Pine Boundary

**Habitat Cut: No** Site Condition:

Prescription Remove all trees 2" and up. Leave retention along edge of stand to facilitate planting operations. Chip harvest if markets allow.

Specs:

Next Step SitePrep, Roller Chopping: Pesticide, Aerial: Burn, Slash: SitePrep, Trenching: Planting, Initial Plant: Pesticide, Aerial: Monitoring,

Treatments: Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Acceptable Planted red pine with minimal deciduous inclusions.

Regen:

Protect snowmobile trail during operations. Account for safety along haul route and its intersections with other recreational trails. Incorporate Other Comment:

hard and soft mast within planting where opportunity allows.

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

52062087-42110 - Planted Draft Field 6.7 Natural Regen 4310 - Pine, Sapling Immatu Monitoring Even-Aged Red Pine (Intermediate) Oak Mix Monitor Poor re Boundary

**Habitat Cut: No Site Condition:** 

Prescription Monitor the success of oak plantings within the planted red pine. Refer to FTP # C52-303

Specs:

Next Step

Treatments:

Acceptable oak and red pine mixture depending on planting ratio which varies per planting block.

Regen:

**Other** 

Comment:

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

42110 - Planted 52062091-Cut 38.1 Sawtimber 59 141-4211 - Planted Draft Field Harvest Crown Thinning Even-Aged Red Pine Well 170 Red Pine Boundary

**Habitat Cut: No Site Condition:** 

Prescription Thin stand to an average of 120 BA. Target poor form and suppressed trees for removal. Protect snowmobile trail during operations. Account

Specs: for safety along haul route and its intersections with other recreational trails.

Next Step

Treatments:

Acceptable Not a regeneration harvest.

Regen:

Other Do not remove all of the hardwood component. Mark individual trees to be removed.

Comment:

Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 62 s Year of Entry: 2019 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 52062092-NF 20.4 3204 - Mast Unspec NonForestMgt Other - Specify 310 -Draft Field 92 Nonstocked Producing Shrub 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: Other Protect ORV and snowmobile trails during operations Comment: 10/01/2018 **Proposed Start Date:** Draft Field 7.8 3204 - Mast Unspec NonForestMgt Other - Specify 310 -52062094-NF Nonstocked Producing Shrub 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: Other Protect ORV and snowmobile trails during operations Comment: **Proposed Start Date:** 10/01/2018 95 52062095-Cut 42110 - Planted Poletimber 59 141-4211 - Planted Draft Field 81.1 Harvest Crown Thinning Even-Aged Red Pine Well 170 Red Pine Boundary **Habitat Cut: No Site Condition:** Prescription Thin to an average BA of 100-120sq/ft. Mark hardwood trees for removal do not species designate. Protect snowmobile trail during operations. Account for safety along haul route and its intersections with other recreational trails. Specs: Next Step Treatments: Acceptable Not a regeneration harvest. Regen: Other This will be a light thinning. Make sure stumps are left high or cut flush along snowmobile trail. Comment: **Proposed Start Date:** 10/01/2018 52062099-NF 10.1 3204 - Mast NonForestMgt Other - Specify 310 -Draft Field Nonstocked Producing Shrub 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:

10/01/2018

Acceptable
Regen:
Other
Comment:

**Proposed Start Date:** 

Gaylord Mgt. Unit Report 3 -- Treatments Compartment: 62 S Year of Entry: 2019 t а **Treatment** Stand **Treatment Treatment Cover Type** Acres Stand Size BA Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 52062103-NF 98.8 3204 - Mast Unspec NonForestMgt 310 -Draft Field 103 Nonstocked Other - Specify Producing Shrub 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: Protect ORV and snowmobile trails during operations Other Comment 10/01/2018 **Proposed Start Date:** Draft Field 58.0 3303 - Mixed Low Nonstocked NonForestMgt Other - Specify 310 -52062105-NF **Density Trees** Herbaceous Boundary Openland **Site Condition: Habitat Cut: No** Prescription Mow, plant, burn,brush, or herbicide to maintain openings. Plant hard and soft mast. Specs: Next Step **Treatments:** Acceptable Regen: Other Protect ORV and snowmobile trails during operations Comment: **Proposed Start Date:** 10/01/2018 42111 - Planted 4211 - Planted Draft Field 113 52062113-Cut Poletimber 111-Harvest Clearcut with Even-Aged Red Pine, Mixed Well 140 Retention Red Pine Boundary Deciduous **Habitat Cut: No Site Condition:** Prescription Remove all trees 2" DBH and up. Leave minimum retention along edge of stand. Specs: SitePrep, Roller Chopping; Pesticide, Aerial; Burn, Slash; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Aerial; Monitoring, <u>Treatments:</u> Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Acceptable Planted red pine Regen: Other Chip harvest if markets allow. Protect ORV and snowmobile trails during operations. Account for safety along haul route and its intersections with other recreational trails. Incorporate hard and soft mast within planting where opportunity allows. Comment: 10/01/2018 **Proposed Start Date:** 11.4 3205 - Mixed Unspec NonForestMgt Other - Specify 310 -Draft Field 405 52062405-NF Nonstocked **Upland Shrub** 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 Protect ORV, walking and snowmobile trails during operations

Comment:

s t		Ga	aylord Mgt. Unit		Re	eport 3	Treatmen	ıts		tment: 62 Entry: 2019	DNR DNR
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
407	52062407-NF	2.7 l	3105 - Mixed Jpland Herbaceous	Nonstocke	d	Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary
		lant, burn,	Site Condition brush, or herbicide	=	openin	igs. Plan	t hard and soft m	ast.	Оролиала		
<u>Next</u> <u>Treat</u>	Step tments:										
Acce Rege	<u>ptable</u> en:										
Othe Com	<u>r</u> Protect <u>ment:</u>	ORV and	snowmobile trails	during opera	tions						
Prop	osed Start Date	<u>:</u> 10/01	//2018								
408	52062408-NF	2.0 l	3105 - Mixed Upland Herbaceous	Nonstocke	d		NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary
		lant, burn,	Site Condition brush, or herbicide	_	openin	igs. Plani	t hard and soft m	ast.			
	Step tments:										
Acce Rege	<u>ptable</u> en:										
	ment:										
Prop	osed Start Date	<u>:</u> 10/01	/2018								
416	52062416-NF	5.0	310 - Herbaceous Openland	Nonstocke	d	Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary
	itat Cut: No cription Mow, p s:	lant, burn,	Site Condition brush, or herbicide		openin	gs. Plan	t hard and soft m	ast.			
	Step tments:										
Acce Rege	<u>ptable</u> en:										
	ment:	40/04									
	osed Start Date		1/2018								
422	52062422-NF	3.5	3204 - Mast Producing Shrub	Nonstocke	d	Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary
		lant, burn,	Site Condition brush, or herbicide		openin	gs. Plan	t hard and soft m	ast.			
	Step tments:										
Acce Rege	<u>ptable</u> en:										
Othe Com	<u>r</u> Protect <u>ment:</u>	ORV and	snowmobile trails	during opera	tions						
Prop	osed Start Date	10/01	/2018								
A	Total Treatme creage Propos	14	56.8								

Gaylord Mgt. Unit

Lucas Merrick : Examiner

Compartment: 62 Year of Entry: 2019

Availa	ability for	Managemer	ıt					
Total	Acres	Acres Avail	Acres		Domina	nt Site	Con	ditions
Acres	Available	With Condition	Not Available		21	5C	3J	5E
839	697	107	35	Aspen		107	15	21
36	36	0	0	Herbaceous Openland				
104	104	0	0	Low-Density Trees				
738	735	0	3	Northern Hardwood				3
5	5	0	0	Planted Mixed Pines				
1076	892	184	0	Red Pine	184			
4	4	0	0	Sand, Soil				
427	427	0	0	Upland Shrub				
18	18	0	0	Urban				
29	29	0	0	Water				
2	2	0	0	White Pine				
3,276	2,947	291	39	Total Forested Acres	184	107	15	24
	90%	9%	1%	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.

Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
Unavailable	5E: Long-Term Retention	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Retention from vario	ous sales throughout the comp	partment.				
Available	5C: Delay treatment for age/size class diversity or exceptional site quality	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
Available	2l: Survey needed	184	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						
	Comments: Retention from vario  Available  Comments:  Available  Comments:	Comments:  Retention from various sales throughout the comp  Available 5C: Delay treatment for age/size class diversity or exceptional site quality  Comments:  Available 2I: Survey needed	Comments:  Retention from various sales throughout the compartment.  Available 5C: Delay treatment for 18 age/size class diversity or exceptional site quality  Comments:  Available 2I: Survey needed 184  Comments:	Comments: Retention from various sales throughout the compartment.  Available 5C: Delay treatment for 18 Unspecified age/size class diversity or exceptional site quality  Comments:  Available 2I: Survey needed 184 Unspecified  Comments:	Comments:  Retention from various sales throughout the compartment.  Available 5C: Delay treatment for age/size class diversity or exceptional site quality  Comments:  Available 2I: Survey needed 184 Unspecified Unspecified  Comments:	Comments: Retention from various sales throughout the compartment.  Available 5C: Delay treatment for 18 Unspecified Unspecified Unspecified Unspecified age/size class diversity or exceptional site quality  Comments:  Available 2I: Survey needed 184 Unspecified Unspecified Unspecified Unspecified Comments:

# Report 4 – Site Conditions

Compartment: 62

Gaylord Mgt. Unit

Lucas Merrick : Examiner Year of Entry: 2019

5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	55	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Planted trees and լ	posts located throughout stands	trying to p	prevent motorized acces	s to the beach surrounding	յ sand lake.	
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	34	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	15	Unspecified	Unspecified	Unspecified	Unspecified
	<b>Comments:</b> Adjacent to Sand L	ake					
8	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

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Gaylord Mgt. Unit Compartment: 062

Year of Entry: 2019



# 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	Concentrated Recreation Area	Trail Head	Proposed SCA	1

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	<ul><li>Forested</li></ul>	Stands Compartment: 62 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4119 - Mixed Northern Hardwoods	Sawtimber Well	15.8	80	51-80	Multi-stem. Some of the more open areas have started to fill in with ironwood. Heavier aspen component along Mancelona Rd.
2	4130 - Aspen	Sapling Well	31.0	25	Immature	Some open pockets throughout. A few sticks are merchantable. pockets of poor quality aspen.
3	4112 - Maple, Beech, Cherry Association	Poletimber Well	5.4	80	51-80	Clumpy with open grown qualities. A variable stand. Smaller diameters in southern portion.
4	4112 - Maple, Beech, Cherry Association	Sawtimber Well	13.4	70	81-110	Clumpy red maple and sugar maple. A nice pocket of M3 in middle of stand. Decent understory.
6	4130 - Aspen	Sapling Well	3.6	6	Immature	A regenerating aspen stand, 10 - 15' tall for majority.
8	4130 - Aspen	Poletimber Well	35.7	26	81-110	Pockets of un-merchantable aspen, pockets of ironwood and cherry. Some sugar maple in understory. Small pocket of planted pine.
10	4112 - Maple, Beech, Cherry Association	Poletimber Well	15.6	78	81-110	Clumpy red maple. A few nice stems of yellow birch. A pocket of dying aspen can be found in the south with a well stock understory underneath the aspen. A variable stand (BA's and DBH).
12	42110 - Planted Red Pine	Sawtimber Well	40.3	59	111-140	Some poor form, and thin tops. Thick understory. Pockets of hardwood with failed red pine stems. Many 12 - 14" logs. Extensive porcupine damage in several pockets. A variable stand.
13	4130 - Aspen	Sapling Well	10.6	6	Immature	A regenerating aspen stand. Open pockets of brush. Pocket of planted pine.
14	42110 - Planted Red Pine	Sawtimber Well	16.6	59	111-140	Poor form throughout/porcupine damage. An open pocket with hardwood and aspen in the north. Current red pine BA avg =123 sq/ft.
15	4130 - Aspen	Sapling Well	16.2	6	Immature	Pockets of just cherry regen. Aspen picks up along west and in the south. A couple open pockets in the middle of the stand. 10-15't all.
16	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	15.0	39	111-140	Cherry red maple, and aspen scattered throughout, limby, wide spacing in some pockets. Northern hardwood pocket found in the east. red pine BA avg 90sq/ft.
18	4130 - Aspen	Sapling Well	37.5	16	Immature	Rolling hills in north. A merchantable stick here or there but mostly 2-3" in DBH
19	42110 - Planted Red Pine	Sawtimber Well	10.3	59	141-170	Porcupine damage present. Pockets of good looking stems. Understory varies, pockets where it is fairly thick. A good class of 11" dbh tress.

s t	Gaylord		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 62 Year of Entry: 2019	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4112 - Maple, Beech, Cherry Association	Poletimber Well	66.5	78	111-140	OPIC - FMD: THINNED 2004. Fair amount of orange marked trees left. Heavy to scale in many areas. Some snap present. Pockets of 6 to 8" trees throughout but some good looking smaller log class present. Red maple in south and west aspen in southeast. 50ish Ag class also present
21	42110 - Planted Red Pine	Sawtimber Well	16.7	56	141-170	PLANTED 1961. THINNED 1995. Stand thinned spring 2011. Heavy hard wood understory. Some snags present. Stand split by several roads. Fairly high stumps left in some areas. Aspen in canopy in south.
22	4130 - Aspen	Sapling Well	6.6	5	Immature	OPIC - FMD: Stand was clearcut as part of Out To Lunch Aspen Sale (52-008-10-01) cut was completed in 10/12, Aspen approximately 10' tall. Maple and cherry slightly behind. Thick raspberry understory inmany spots. A few stems of sugar maple too.
23	42110 - Planted Red Pine	Sawtimber Well	37.2	60	141-170	PLANTED 1957. THINNED 1995. Stand thinned spring 2010. Aspen was not removed. Bark beetle evident on some stressed stems. Variable quality some areas limby other spots look very good.
24	4130 - Aspen	Sapling Well	18.8	5	Immature	Stand was cut as part of the Out to Lunch Aspen Sale (52-008-10-01) Cut was completed in 10/12. ORV trail runs through stand. A few open pockets with shrubs and stunted saplings.  Primarily aspen in canopy approx. 10' tall.
25	4130 - Aspen	Sawtimber Well	105.9	51	111-140	MIX OF SIZE CLASSES 6 - 14" DBH. AREAS OF NICE SMALL LOGS. POOR QUALITY HDWD - MIX OF RM AND HM WITH SOME SCATTERED YB AND WP. Two sales were indicated to have happened in this stand 55' and 68'
26	42110 - Planted Red Pine	Poletimber Well	20.3	56	111-140	A recently thinned red pine stand. Several open pockets. Poor form present, areas of tall spindly red pine. Fairly open understory.
27	4112 - Maple, Beech, Cherry Association	Poletimber Well	3.3	65	81-110	Small area left from adjacent harvest. Clumpy hardwoods with some aspen.
28	4130 - Aspen	Poletimber Well	109.3	25	81-110	Several nice pockets of big tooth in the 5-7"DBH range. Quaking aspen starting to break up. Moderate understory with a good amount of serviceberry. A few areas are open and heavier to brush.
30	42110 - Planted Red Pine	Poletimber Well	36.7	55	111-140	Thinned last year of entry. Understory developing but not dog hair thick as of yet. A couple pockets of hardwoods present.
31	4130 - Aspen	Poletimber Well	34.2	55	111-140	Mix of BT and QA. Variable stand. Quaking aspen is poorer in quality and form. Some big tooth in small log size class.
32	42200 - Natural White Pine	Poletimber Well	2.0	55	171-200	Pocket of white pine. Size variable. Looks to be in good health.

s t	Gaylord	l Mgt. Unit		Report 7	– Forested	Stands Compartment: 62 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
33	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	12.2	45	81-110	Strip of pine pinned between hardwoods. Limby, porcupine damage, some poor form. Plenty of deciduous in center of stand where it narrows.
34	4112 - Maple, Beech, Cherry Association	Sawtimber Well	5.4	76	81-110	Clumpy red maple. Lower BA in southern parts. Minimal understory. Over all Avg BA 92.
36	42110 - Planted Red Pine	Sawtimber Well	25.6	59	111-140	Porcupine damage. Fairly thick understory of hardwoods. Higher red pine BA in southern portions. Over red pine BA avg = 107, it jumps up to 130ish if you take out hardwood pocket plots. Red pine BA range was 40 - 170-with 130 fairly typical.
37	4112 - Maple, Beech, Cherry Association	Sawtimber Well	5.4	86	81-110	Clumpy but some nice single stem present as well. Open understory.
38	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	36.5	59	81-110	Majority of jack pine has fallen out, many of these areas have a fully stocked red maple saplings. Pockets of overstory hardwood have a good mixture of species. Red pine has been thinned once. Fairly thick understory.
39	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	21.9	48	81-110	MCCCT/ORV TRAIL. Poor quality and open grown in majority. A few pockets of nice stems. Hardwood competition throughout. 50' tall. Open brushy areas present.
40	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	6.3	59	81-110	Stand was planted with both jack pine and red pine. Majority of jack pine has fallen out and has been replaced by red maple.  Red maple is smaller in diameter in these pockets. Good looking stems of red pine. There are a few pockets with poor form/quality in the tops. Bark beetle evident in a few dead stems.
41	4112 - Maple, Beech, Cherry Association	Poletimber Medium	2.8	75	51-80	Aspen in the south, scattered black cherry.
43	4112 - Maple, Beech, Cherry Association	Sawtimber Well	191.9	88	81-110	Variable understory. A couple nice pockets of well stocked maple regen. Ironwood throughout the understory, but also some open areas. An extensive skid trail system throughout stand. Variable quality but beech component is minimal compared to other hardwood stands found in the compartment. A few brushy open areas also found in stand.
44	42110 - Planted Red Pine	Poletimber Well	24.8	48	141-170	Has not been thinned. Pockets of M3 with little to no over story present. Pocket of mature aspen in southeast. A scattered hardwood component throughout.
46	4112 - Maple, Beech, Cherry Association	Poletimber Well	132.8	82	81-110	High amount of beech stems present in the canopy. Scale found throughout. Minimal evidence of snap. Majority of red maple found along edges. Nice stems of sugar maple in northern portions. Rolling topo. Plenty of smaller diameter beech mixed with scattered large crown/large diameter mast producing trees.
49	42110 - Planted Red Pine	Poletimber Well	39.3	48	141-170	Limby, has not been entered for treatment. Areas of porcupine damage. Bark beetle evident in a few standing dead. More hardwood competition in southern portions. Consider taking two leaving four if rows are tight.

S	Gaylor	d Mgt. Unit		Report 7	- Forested	Stands Compartment: 62 Year of Entry: 2019
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
50	42110 - Planted Red Pine	Poletimber Well	29.3	60	141-170	Average BA = 148sq/ft . THINNED 2001and 2011. Variable Understory some areas very dense some open areas too.
52	4130 - Aspen	Sawtimber Well	7.5	50	141-170	White pine filling in around perimeter. Good looking aspen. Some very good looking paper birch present. Smaller diameter along perimeter.
54	4139 - Aspen, Mixed Deciduous	Sawtimber Well	33.5	50	111-140	MIX OF ASPEN AND HDWD. SOME OPEN/SPARSE AREAS. SOME ROLLING HILLS AND SIGNIFICANT DROP-OFF TO SAND LAKE.
56	42110 - Planted Red Pine	Sapling Poor	49.3	3	Immature	Several feet of snow on ground during examination difficult to determine current success. Stand does not look to be doing as well as other recently planted red pine in stand 83. Stand harvested 2010. Site has been trenched and planted in 2011. Herbicide release attempted in 2012, ineffective. Roller chopped and trenched in 2013. Planted in 2014.
57	4112 - Maple, Beech, Cherry Association	Poletimber Medium	41.2	70	1-50	Clumpy. Some white pine in the understory. Open areas filling in. Several age classes represented.
59	4139 - Aspen, Mixed Deciduous	Sapling Medium	37.6	3	Immature	Recently harvested aspen stand. U-type harvested along with it. There are some good pockets of aspen regen, and there open areas with cherry and browsed maple. Scattered shrubs, mostly witch hazel. Stand appears to have been moderately stocked prior to harvest. Regen is successful considering prior stand was a mosaic of u-type and aspen. Where aspen is regenerating it is better than 2000 stems per acre. U-types will stay primarily in upland brush with scattered aspen and maple.
60	42110 - Planted Red Pine	Poletimber Well	22.5	45	81-110	Limby and open grown. Majority of stand running approx. 4 sticks. Pockets of aspen present, saw a couple elm in overstory. Doubles and poor form throughout. Understory varies in size and quality.
61	42110 - Planted Red Pine	Poletimber Well	14.8	40	111-140	Fairly short and limby, several spares/open pockets. Aspen is in poor shape. Thick understory.
64	4130 - Aspen	Sapling Well	9.0	6	Immature	Mostly QA approx. 15' tall.
66	42110 - Planted Red Pine	Sapling Poor	22.4	4	Immature	Close to 50% canopy coverage. Seedlings look decent 3-4' tall. Scattered red trees here and there. Some minor hardwood competition currently. Oak plantings as well. Stand harvested 4/10. Trenched 2010. Site prep spraying done 825/11. Planted with red oak and red pine 5/19/2012
67	4130 - Aspen	Poletimber Well	4.4	60	111-140	This is a pocket that was not harvested in 1991.
69	4130 - Aspen	Sapling Well	16.8	6	Immature	Regeneration is 15-20' tall in most areas. Pockets of brush and maple throughout. Majority of stand is well over 2000 stems an acre.

S t	Gaylord	d Mgt. Unit		Report 7	- Forested	Stands Compartment: 62 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
70	4112 - Maple, Beech, Cherry Association	Poletimber Well	22.2	75	81-110	Clumpy red maple, decent single stem sugar maple. Better quality in northern portions.
72	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	75.1	48	141-170	RP BA avg. = 110sq/ft. 149sq/ft avg. overall. Limby. Poor form in many tops, porcupine damage present. Squirrely rows in some locations. Variable quality throughout stand. Understory is fairly light. Pockets of hardwoods present (large pocket along western edge of stand. ORV/MCCCT Trail.
75	42110 - Planted Red Pine	Sapling Poor	1.0	4	Immature	OAK BLOCK #4 (FTP C52-303) Very deep snow did not notice oak. Close to 50% canopy coverage. Seedlings look decent 3-4' tall. Scattered red trees here and there. Some minor hardwood competition currently. Oak plantings as well. Stand harvested 4/10. Trenched 2010. Site prep spraying done 825/11. Planted with red oak and red pine 5/19/2012
76	42110 - Planted Red Pine	Sapling Poor	1.1	4	Immature	OAK BLOCK #5 (FTP C52-303) Very deep snow did not notice oak. Close to 50% canopy coverage. Seedlings look decent 3-4' tall. Scattered red trees here and there. Some minor hardwood competition currently. Oak plantings as well. Stand harvested 4/10. Trenched 2010. Site prep spraying done 825/11. Planted with red oak and red pine 5/19/2012
77	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	34.5	55	111-140	Stand originally planted with a mix of red and jack pine. Pockets of quality red pine. Majority of jack pine has fallen out and has been replaced with small diameter hardwoods. Red pine BA is variable ranging from 0 - 210sq/ft
78	4130 - Aspen	Poletimber Poor	15.0	55	1-50	Variable stand, many pockets of open areas. Some aspen and red maple pockets saw log in size others 4-7 inches in DBH. Stand was planted to jack pine in the 50's but trees did not succeed.
79	4112 - Maple, Beech, Cherry Association	Sawtimber Well	12.4	89	111-140	Low quality hardwoods and aspen. Clumpy and open grown.  Variable understory. Good looking shrub components. Pockets of open with advanced regen.
81	42110 - Planted Red Pine	Poletimber Well	38.2	48	141-170	BA average is 146sq/ft, red pine average is 128. Stand has not been thinned. Pockets of higher red pine BA in areas without hardwood competition (170-200sq/ft). Some porcupine damage.
82	4130 - Aspen	Sapling Well	20.5	3	Immature	Pockets of open areas w/ cherry brush. More than 2000 stems/acre in area with aspen. Browse evident on red maple. Regen just under 10'.
83	42110 - Planted Red Pine	Sapling Poor	73.4	6	Immature	Majority of red pine above 3'. Minimal cherry brush. LEAVE 419 AND 420 IN G TYPE. Stand was site prep sprayed summer 2011 and trenched fall 2011. Planted spring 2012. Year 1 and 3 regen survey's complete. Red/White Oak planted in 2014 and 2015.
84	42110 - Planted Red Pine	Poletimber Well	20.3	55	141-170	Rolling ridge in the east. Many jack pine snags. Minimal understory. Red pine BA avg = 127sq/ft, High frequency of doubles, some top damage throughout.

S t	Gaylord	d Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 62 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
85	42110 - Planted Red Pine	Sapling Poor	1.2	4	Immature	OAK BLOCK #6 (FTP C52-303) Very deep snow did not notice oak. Close to 50% canopy coverage. Seedlings look decent 3-4' tall. Scattered red trees here and there. Some minor hardwood competition currently. Oak plantings as well. Stand harvested 4/10. Trenched 2010. Site prep spraying done 825/11. Planted with red oak and red pine 5/19/2012
86	4130 - Aspen	Poletimber Medium	18.0	55	51-80	Protect trail during operations. Average quality aspen. A few stems of big tooth present and pine. Large bowl in stand offering some topo.
87	42110 - Planted Red Pine	Sapling Poor	1.2	4	Immature	OAK BLOCK #3 (FTP C52-303) Very deep snow did not notice oak Close to 50% canopy coverage. Seedlings look decent 3-4' tall. Scattered red trees here and there. Some minor hardwood competition currently. Oak plantings as well. Stand harvested 4/10. Trenched 2010. Site prep spraying done 825/11. Planted with red oak and red pine 5/19/2012
88	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Medium	75.2	39	51-80	Protect recreational trails during operations. Open pockets with black cherry and aspen. Variable stand 3 -5 stick stuff. Many areas of open grown. Open pockets found throughout out.
89	4130 - Aspen	Sapling Well	45.9	3	Immature	Regen approx. 6' tall. Majority of stand is better than 2000 stems/acre. Open areas with brush present. These areas were present prior to harvest judging by retention pockets.
91	42110 - Planted Red Pine	Sawtimber Well	38.1	59	141-170	Variable understory. Plenty of small diameter logs present. Scattered hardwoods in over story. Doubles and porcupine damage present.
93	42110 - Planted Red Pine	Sapling Poor	1.0	4	Immature	OAK BLOCK #2. (FTP C52-303) Very deep snow did not notice oak. Close to 50% canopy coverage. Seedlings look decent 3-4' tall. Scattered red trees here and there. Some minor hardwood competition currently. Oak plantings as well. Stand harvested 4/10. Trenched 2010. Site prep spraying done 825/11. Planted with red oak and red pine 5/19/2012
95	42110 - Planted Red Pine	Poletimber Well	81.1	59	141-170	.Some porcupine damage. Heavier understory in the south. Forks and double throughout. Average stand. Red Pine avg BA = 146
96	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	65.8	39	111-140	Open grown. Pockets of hardwoods throughout with suppressed pine scattered underneath. Even where canopy is mostly deciduous there is evidence of planting in understory. Areas with porcupine damage. Protect ORV trail when operating in this stand.
97	42110 - Planted Red Pine	Sapling Poor	1.1	4	Immature	OAK BLOCK #1. Very deep snow did not notice oak. Close to 50% canopy coverage. Seedlings look decent 3-4' tall. Scattered red trees here and there. Some minor hardwood competition currently. Oak plantings as well. Stand harvested 4/10. Trenched 2010. Site prep spraying done 825/11. Planted with red oak and red pine 5/19/2012

S	Gaylord	l Mgt. Unit		Report 7	- Forested	Stands Compartment: 62 Year of Entry: 2019
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
98	4112 - Maple, Beech, Cherry Association	Sawtimber Well	149.8	89	51-80	Residual BA 80sq/ft. Open and clumpy throughout much of stand, south and west contains better quality stems and is heavier to sugar maple.
100	4130 - Aspen	Sapling Well	32.4	5	Immature	Many stem of aspen and red maple over 10' tall. Open areas of upland brush present. Majority of stand exceeds 2000 stems an acre. Big tooth looks better than the quaking.
102	4130 - Aspen	Sapling Well	15.3	5	Immature	Open brushy areas present. Pockets of aspen regen well over 2000 stems/acre. Regen approx. 10' tall.
104	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	23.0	40	81-110	Open grown red pine. Pockets of porcupine damage. Pockets of mixed hardwood throughout.
106	4112 - Maple, Beech, Cherry Association	Poletimber Well	44.5	79	81-110	Many stems in the small pole class 4-6" dbh. Likely from the advanced understory mentioned from last years comments? Poor quality-multi-stems, knotty, and general poor form throughout. A quality stem can be found but certainly not the norm. The lack of beech compared to the northern M-types in this compartment is note worthy. A confer or two present along edges. Understory mostly open.
107	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	12.3	40	111-140	LIMBY OPEN GROWN RP MIXED WITH BC, ASPEN AND HDWD. Areas with significant porcupine damage. Pockets of pine suppressed by hardwood.
108	4130 - Aspen	Sapling Well	57.4	6	Immature	Patchy areas of upland brush and browsed stump sprouts mixed with pockets of well regenerating aspen and maple. Regen approx. 10' tall. Two retention islands found in stand.
109	4110 - Sugar Maple Association	Poletimber Well	5.1	85	81-110	Lots of pole sized trees mixed with some xl log trees 16+" DBH.  Lots of ironwood in the understory. Clumpy.
110	4116 - Mixed N. Hardwood - Aspen	Sapling Well	4.5	6	Immature	10' tall. Aspen mostly along perimeter.
111	4130 - Aspen	Sawtimber Well	1.1	60	81-110	Was not cut during sale operations. Nice clumps of serviceberry in understory. Stand will convert to northern hardwoods, majority of aspen is starting to fall apart.
113	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	34.6	48	111-140	Large pockets of failed planting. Moderate understory. Pockets of extensive porcupine damage. A few elm present in canopy.
114	4130 - Aspen	Poletimber Medium	13.8	46	1-50	An open area filling in with aspen. Good shrub component underneath.
115	42141 - Planted Mixed Pine, Mixed Deciduous	Poletimber Poor	4.7	39	1-50	Classified as a g-type previous inventory. Enough canopy cover to call forested. It is a pocket of failed planting. Some natural jack pine a planted red pine with small aspen clones. It was intentionally left out of the adjacent harvest/planting.

s t	Gaylord Mgt. Unit			Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 62 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
125	4130 - Aspen	Sapling Well	72.7	5	Immature	OPIC - FMD: Stand was clear cut as part of Out to Lunch Aspen Sale (52-008-10-01) Sale was completed 10/12. scattered white pine left. 3 retention Islands. Aspen approx. 10' tall.
182	4130 - Aspen	Sawtimber Well	28.1	60	51-80	Pockets of quality big tooth present. Stand adjacent to the lake. A few brushy open pockets along with a large pocket of clumpy poor quality hardwoods present.



Stand	Cover Type	Acres	Managed Site	General Comments:
5	3204 - Mast Producing Shrub	4.1	No	Cherry and aspen. Would benefit from opening maintenance.
9	320 - Upland Shrub	2.7	No	A couple apple trees. Pockets of pole size aspen with heavy hardwood understory. Scotch pine seeding in the northern portions. Cherry brush throughout.
11	310 - Herbaceous Openland	0.4	No	Old landing site
17	330 - Low-Density Trees	5.1	No	Mostly open, failed area of red pine planting, pockets of aspen and hdwds.
29	3204 - Mast Producing Shrub	10.2	No	Another open area with lots of cherry, serviceberry, and nannyberry.
35	3204 - Mast Producing Shrub	5.4	No	A couple mature pockets of aspen. Permanent blind recently built in SE corner.  Mostly open with cherry brush.
42	310 - Herbaceous Openland	0.4	No	
45	3204 - Mast Producing Shrub	14.3	No	OPIC - FMD: MOSTLY CHERRY SHRUBS WITH SCATTERED ASPEN AND HDWD.
47	3204 - Mast Producing Shrub	10.9	No	MOSTLY OPEN WITH BC AND SERVICEBERRY. SOME ASP AND HDWD MOVING IN.
48	310 - Herbaceous Openland	2.5	No	
51	3204 - Mast Producing Shrub	50.9	Yes	Good looking u-type. A couple aspen clones present. Plenty of cherry throughout.  Jack and white pine present.
53	500 - Water	28.9	No	SAND LAKE.
55	3303 - Mixed Low Density Trees	10.3	No	Close to 25% canopy coverage. Red maple an aspen filling in. Some planted pines present. Planted to hinder illegal vehicle traffic.
58	3204 - Mast Producing Shrub	19.9	No	Good looking u-type. Scattered aspen and hardwoods. An elm or two present.
62	3204 - Mast Producing Shrub	13.8	No	An open brushy area that did not regenerate well to aspen. Scattered larger diameter cherry and pine present.
65	3204 - Mast Producing Shrub	13.6	No	Mature aspen clone in the north. Plenty of cherry. More hawthorn than some of the other u-types. Close to 25% canopy cover.
71	3301 - Low Density Deciduous Tree	15.2	No	Open are filling in with hardwoods. A couple well stocked pockets present.



Stand	Cover Type	Acres	Managed Site	General Comments:
73	330 - Low-Density Trees	10.6	No	Small valley.
74	3204 - Mast Producing Shrub	86.3	No	Protect ORV/MCCCT trail if operation occur in or around the stand. Portions with extensive cherry brush. Scattered aspen clones and misc. hardwood. Pockets of relatively open area also found throughout.
80	3204 - Mast Producing Shrub	16.8	No	Several pockets of aspen present. Scattered sapling red pine throughout.
90	3204 - Mast Producing Shrub	18.2	No	Lots of cherry. Good looking shrub stand.
92	3204 - Mast Producing Shrub	20.4	No	Protect recreational trail during operations. Cherry throughout with scattered aspen clones
94	3204 - Mast Producing Shrub	7.8	No	Failed portions of red pine plantation along with pockets of small diameter aspen.
99	3204 - Mast Producing Shrub	10.1	No	Protect recreation trails if operating in this stand. Lots of cherry. Scattered red pine and aspen clones. Red maple also present. Stand starting to fill in.
103	3204 - Mast Producing Shrub	98.8	No	Cherry brush with conifer and misc. hardwoods. A few aspen clones found within stand- largest being on the eastern edge.
105	3303 - Mixed Low Density Trees	58.0	No	Recreation trails present. Stand is slowly filling in. A failed portion of the red pine plantation? Red pine present scattered and in clumps. Some deciduous saplings present throughout. Cherry brush also. Couple aspen clones.
116	710 - Sand, Soil	3.6	No	SAND LAKE BEACH
118	122 - Road/Parking Lot	1.4	No	Sand lake or/snowmobile parking lot.
122	122 - Road/Parking Lot	8.8	No	Mancelona Rd and ROW
127	122 - Road/Parking Lot	2.6	Yes	Sand Lake access site.
129	3301 - Low Density Deciduous Tree	1.8	No	An open are filling in with hardwood. Scattered clumps of saw log sized hardwood.  A few white pine also present.
130	122 - Road/Parking Lot	4.9	No	CINDER HILL RD
400	3104 - Degraded	0.9	No	PUMP JACK AND SHED. St Mancelona D1-19
401	310 - Herbaceous Openland	1.7	No	Scattered cherry, a few pine starting to seed in.



Cover Type	Acres	Managed Site	General Comments:
3104 - Degraded	1.1	No	GAS WELL. PUMP JACK AND SHED. St Mancelona East C4-19
3104 - Degraded	1.1	No	GAS WELL. PUMP JACK AND SHED. KNAPWEED. ST MANCELONA EAST A2-20
3104 - Degraded	1.2	No	OPIC - FMD: GAS WELL. PUMP JACK AND SHED. KNAPWEED. ST. Mancelona East A4-20 BreitBurn. Pine and some hardwood filling in the perimeter
3205 - Mixed Upland Shrub	11.4	No	MOSTLY OPEN WITH SCATTERED BC AND SOME ASP, PINE AND HDWD.
3104 - Degraded	0.9	No	GAS WELL. PUMP JACK AND SHED. BrietBurn ST Mancelona East B3-20
3105 - Mixed Upland Herbaceous	2.7	No	DEPRESSION WITH SCATTERED BC. SOME ASP AND HDWD.
3105 - Mixed Upland Herbaceous	2.0	No	NICE SMALL OPENING. A few cherry aspen & other Shrubs.
3204 - Mast Producing Shrub	8.0	No	OPIC - FMD: SCATTERED RM AND CHERRY. ASPEN CLONE PRESENT. Some red pine seeding in. White pine also present.
3104 - Degraded	1.3	No	GAS WELL. PUMP JACK AND SHED. Breit Burn ST Mancelona East D4-20.
3104 - Degraded	0.8	No	Well site. BreitBurn Mancelona 30 A1-30. Valves and antenna.
3104 - Degraded	0.9	No	ST Mancelona East A1-29. Pump jack and small building. BreitBurn
3104 - Degraded	1.4	No	OPIC - FMD: GAS WELL. PUMP JACK AND SHED - KNAPWEED. BrietBurn D2-20
3104 - Degraded	1.1	No	Well site. Breitburn. ST Mancelona B4-29. Pump jack and building.
3104 - Degraded	1.2	No	Well site. BreitBurn ST Mancelona East B2-29.
310 - Herbaceous Openland	5.0	No	Various sizes of cherry and poor quality aspen.
3104 - Degraded	1.0	No	GAS WELL. BARE GROUND. VALVES. MANCELONA 30 C1-30
3104 - Degraded	0.6	No	OPIC - FMD: GAS WELL. PUMP JACK AND SHED. St Mancelona East A1-31
	3104 - Degraded 3104 - Degraded 3104 - Degraded 3205 - Mixed Upland Shrub 3105 - Mixed Upland Herbaceous 3105 - Mixed Upland Herbaceous 3204 - Mast Producing Shrub 3104 - Degraded	3104 - Degraded 1.1 3104 - Degraded 1.2 3205 - Mixed Upland Shrub 11.4 3104 - Degraded 0.9 3105 - Mixed Upland Herbaceous 2.7 3105 - Mixed Upland Herbaceous 2.0 3204 - Mast Producing Shrub 8.0 3104 - Degraded 0.8 3104 - Degraded 0.9 3104 - Degraded 1.3 3104 - Degraded 1.4 3104 - Degraded 1.4 3104 - Degraded 1.1 3104 - Degraded 5.0 3104 - Degraded 5.0 3104 - Degraded 1.2	Site   Site



Stand	Cover Type	Acres	Managed Site	General Comments:
419	3302 - Low Density Conifer Trees	2.8	No	North portion is open, south is failed red pine planting. Trees are open grown and limby.
421	3104 - Degraded	1.2	No	St Mancelona E A2-31 GAS WELL. PUMP JACK AND SHED.
422	3204 - Mast Producing Shrub	3.5	No	scattered black cherry
423	3104 - Degraded	1.2	No	OPIC - FMD: GAS WELL. PUMP JACK AND SHED. St Mancelona East B2-31
424	3104 - Degraded	1.1	No	GAS WELL. PUMP JACK AND SHED. BreitBurn ST Mancelona East C4-31. POISON GAS PRESENT.
425	3104 - Degraded	1.1	No	GAS WELL. PUMP JACK AND SHED. ST MANCELONA EAST D4-31
426	3104 - Degraded	1.7	No	BreitBurn ST Mancelona East D3-31. Pump jack- building
427	3104 - Degraded	1.1	No	Well site. Mancelona 30 C1-31. Valves.