



Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 52060

Entry Year 2018

Acreage: 3,167

County Antrim

Management Area: Grayling Outwash

Revision Date: 2016-05-17

Stand Examiner: Lucas Merrick

Legal Description:

T25N R05W Sec. 6, 8, 12, 13, 15, 16, 17, and 18

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:

Predominant soil type throughout the compartment is Kalkaska-East Lake-Karlin Complex, and Kalkaska-Montcalm Complex. These types are well to excessively drained. Sections 12 and 13 are predominately Tawas muck in lowland areas. Upland soils in this area is Rubicon sand.

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

State land has fractured ownership throughout the compartment. Lakes of the North development borders the majority of the compartment.

Unique Natural Features:

The Manistee River is a designated "Natural River". Potential for red-shouldered hawk and goshawk.

Archeological, Historical, and Cultural Features:

None known on state land.

Special Management Designations or Considerations:

The Manistee River is a designated "Natural River".

Watershed and Fisheries Considerations:

The Manistee River and its head waters are found within the compartment.

Wildlife Habitat Considerations:

This compartment has a broad mix of cover types and has moderate populations of deer, turkey, and ruffed grouse. Aspen treatments will help maintain a balanced age class and benefit these species. Conifer treatments in this compartment will also be supplemented with hard and soft mast plantings to benefit these species.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of an end moraine of coarse-textured till, glacial outwash sand and gravel, and postglacial alluvium. The glacial drift thickness varies between 600 and 800 feet. Beneath the glacial drift are Upper Devonian and Lower Mississippian shales. The bedrock is too deeply buried here to be of economic value. Sand and gravel pits are located one mile to the west of Section 6 and there is good potential on the uplands. The region has been mostly developed for Antrim Shale gas. This area is leased and is currently being developed for gas. All state minerals in the area are currently leased and held by production in unitized areas.

Vehicle Access:

Access is adequate. The majority of the compartment is accessible on gas pipe lines. Currently the lines are kept plowed during the winter months.

Survey Needs:

Several potential encroachment trespass locations may require survey work.

Recreational Facilities and Opportunities:

The MCCCT Trail, North Country Trail, and a snowmobile trail are present. Dispersed recreation occurs throughout.

Fire Protection:

The current cover types are not prone to large fire events. Topography is rolling but little if any would be equipment limiting. County roads, large power line, The Manistee River, and pipelines serve as fuel breaks. Multiple pipelines may make some plow operations difficult.

Additional Compartment Information:

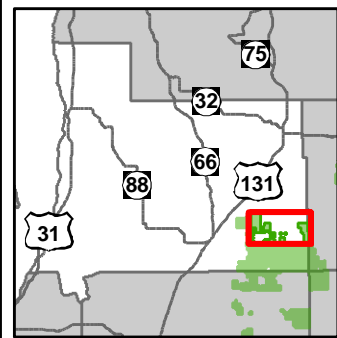
The following reports from the Inventory are attached:

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

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

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

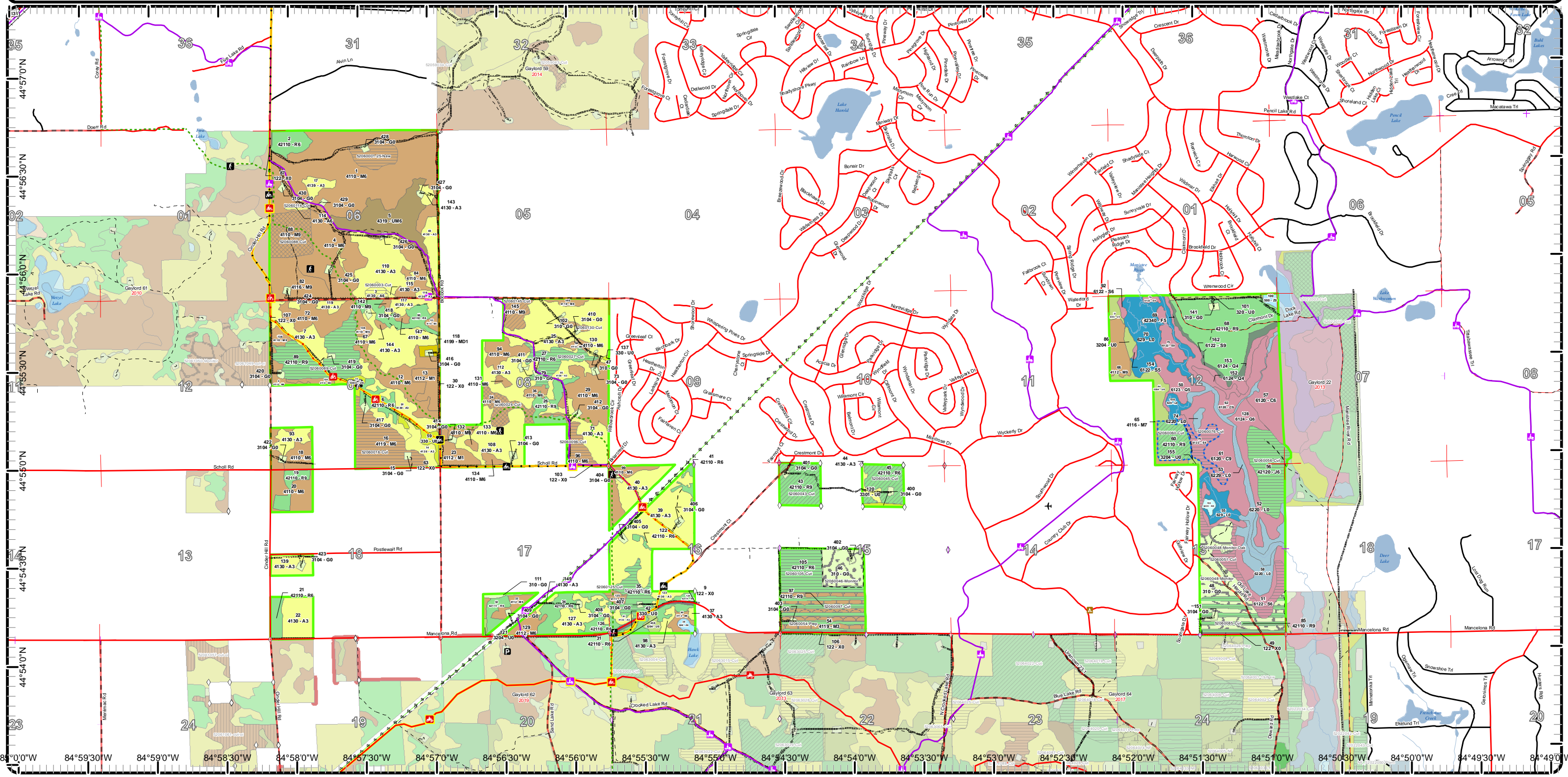
Cover Type & Treatments Map



Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOE: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 OMap Phase: Post-Review 1

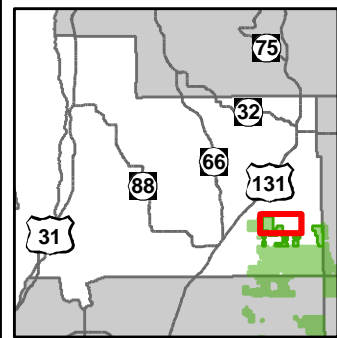
2 Miles

- Miris Corners
- Remonumented Section Corners
- Field Grade GPS Corners
- Culverts
- Airport
- Campground
- Parking Lot
- Motorcycle Trails (SOS License)
- Motorcycle Trails (DNR License)
- Hiking Trails
- MCCCT Trails
- ORV Trails
- Snowmobile Trails
- Designated Hiking Trails
- ORV License
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Treatments with Site Conditions
- Site Prep
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Regeneration Survey
- Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 423 - Other Upland Conifers
- 430 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland
- Lakes

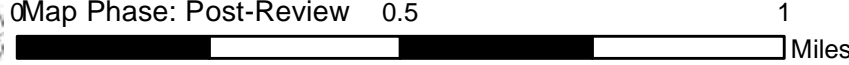


84°0'0"W 84°59'30"W 84°59'0"W 84°58'30"W 84°58'0"W 84°57'30"W 84°57'0"W 84°56'30"W 84°56'0"W 84°55'30"W 84°55'0"W 84°54'30"W 84°54'0"W 84°53'30"W 84°53'0"W 84°52'30"W 84°52'0"W 84°51'30"W 84°51'0"W 84°50'30"W 84°50'0"W 84°49'30"W 84°49'0"W

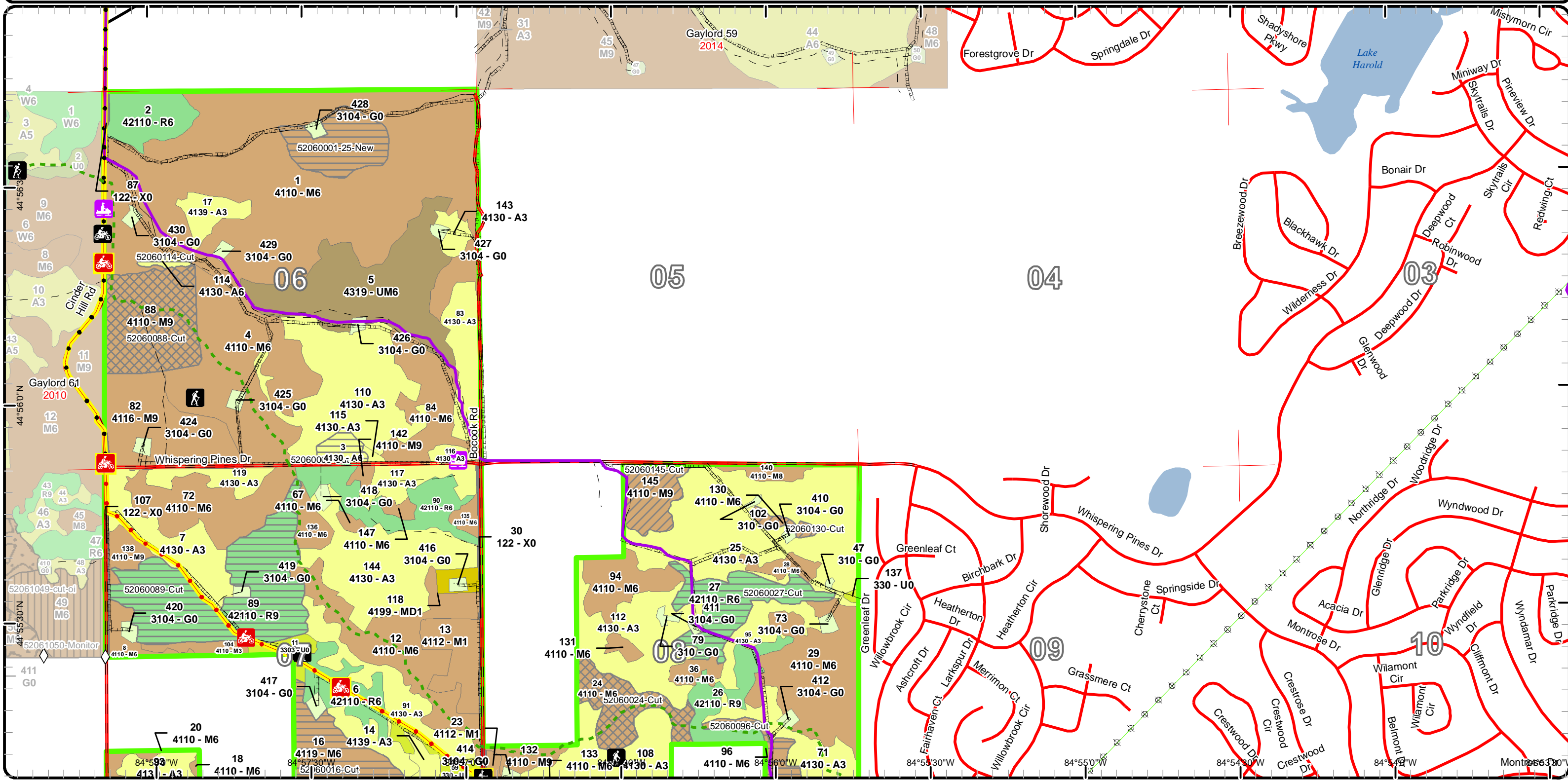
Cover Type & Treatments Map



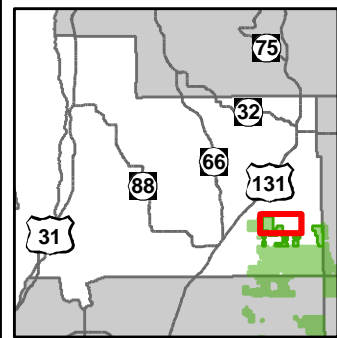
Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOE: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 Map Phase: Post-Review 0.5



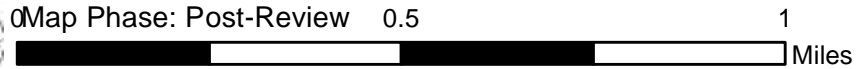
- Miris Corners
- ◇ Field Grade GPS Corners
- Motorcycle Trails (SOS License)
- Motorcycle Trails (DNR License)
- Hiking Trails
- MCCCT Trails
- Snowmobile Trails
- - - Designated Hiking Trails
- ORV License
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- County Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 430 - Upland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- Lakes



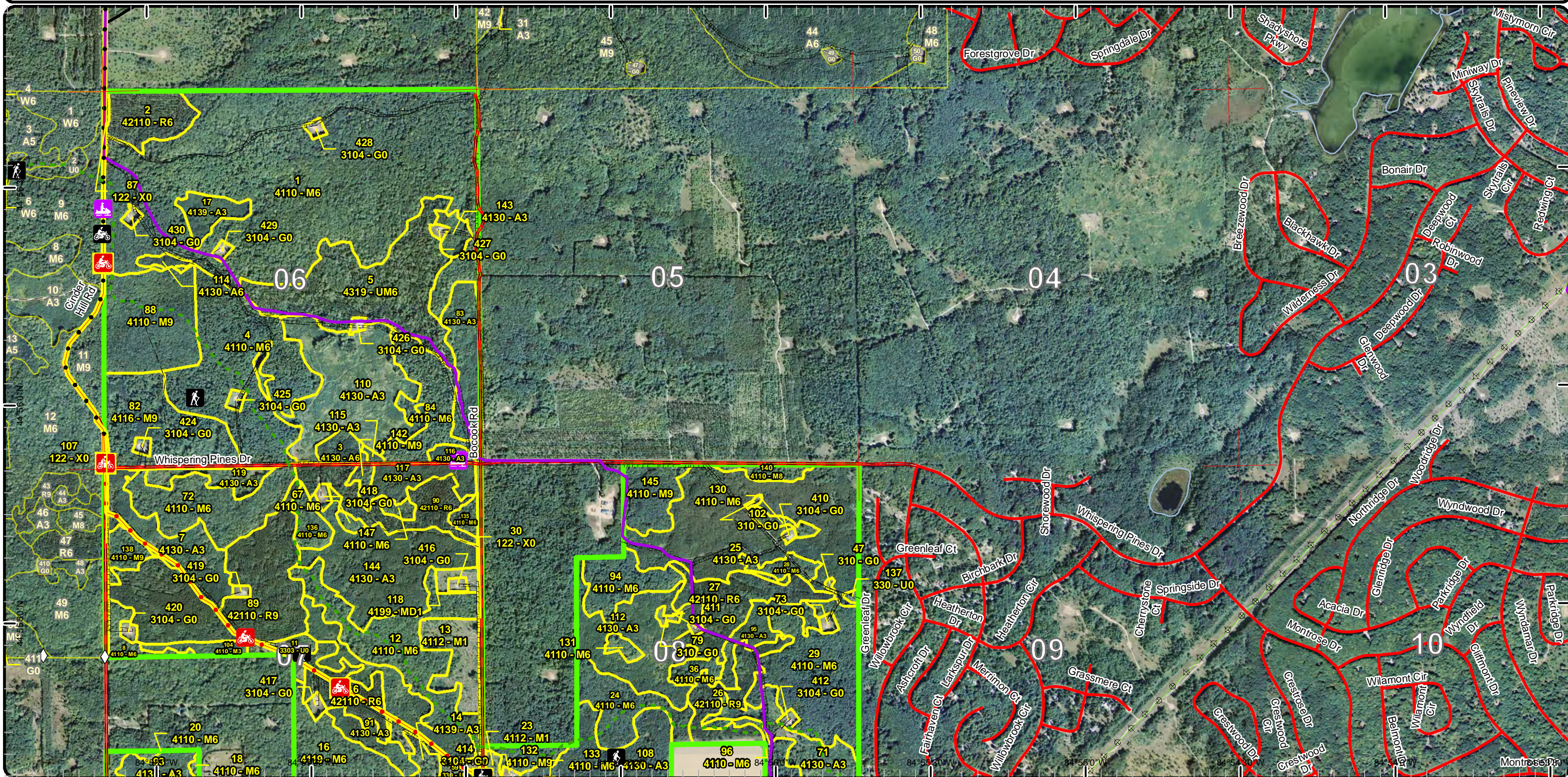
Stand Boundary Map



Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOE: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 Map Phase: Post-Review 0.5

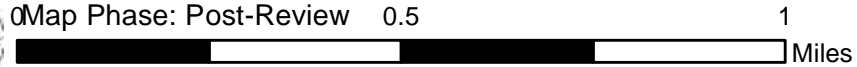
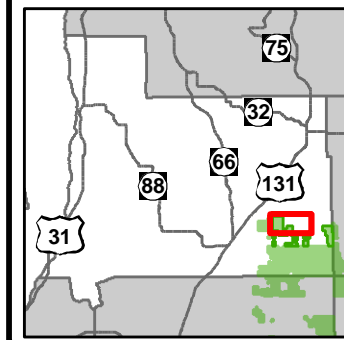


- Miris Corners
- ◇ Field Grade GPS Corners
- Motorcycle Trails (SOS License)
- Motorcycle Trails (DNR License)
- Hiking Trails
- MCCCT Trails
- Snowmobile Trails
- Designated Hiking Trails
- ORV License
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- County Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 430 - Upland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees

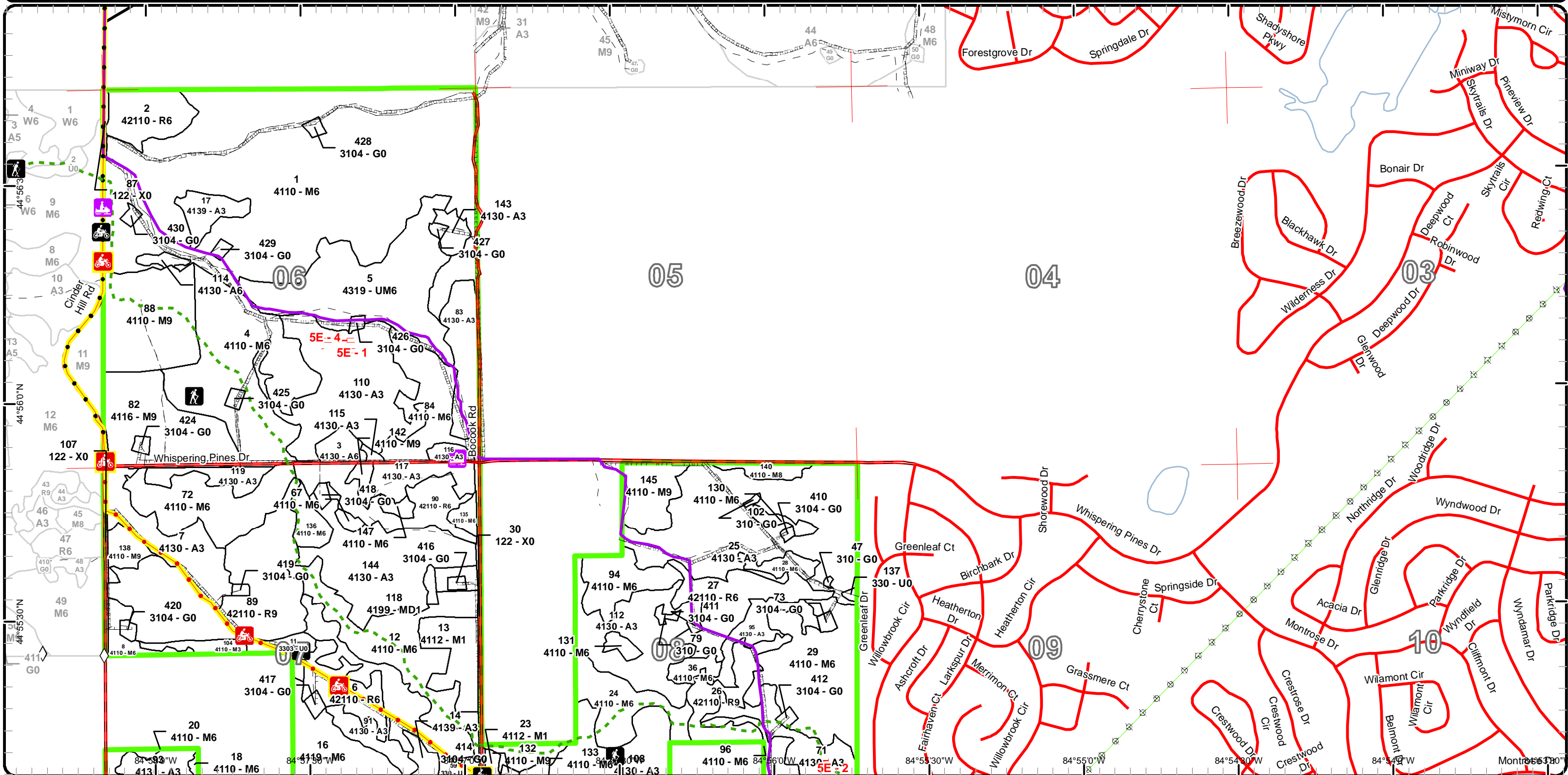


Special Conservation Areas & Site Conditions Map

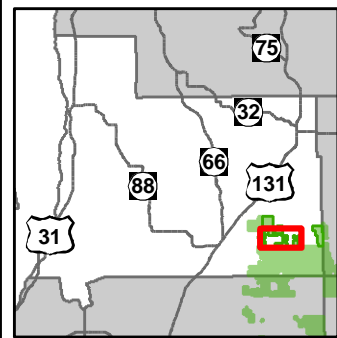
Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOE: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 Map Phase: Post-Review 0.5



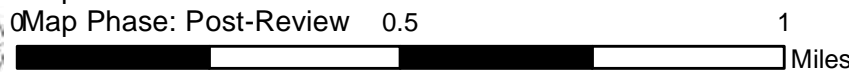
- Miris Corners
- ◆ Field Grade GPS Corners
- Motorcycle Trails (SOS License)
- Motorcycle Trails (DNR License)
- Hiking Trails
- MCCCT Trails
- Snowmobile Trails
- Designated Hiking Trails
- ORV License
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- County Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Unavailable
- Stand Boundaries
- 5E: Long-Term Retention



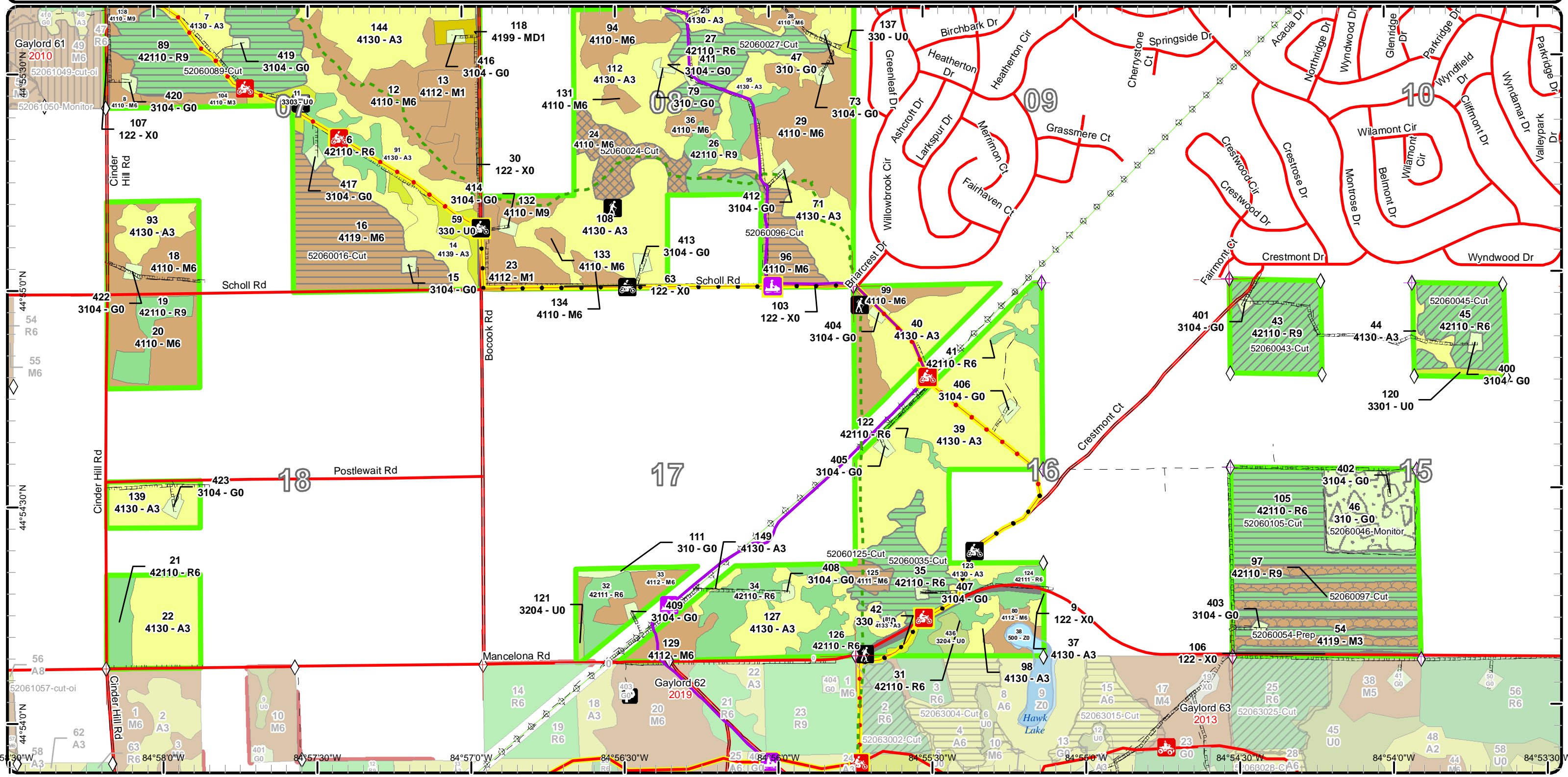
Cover Type & Treatments Map



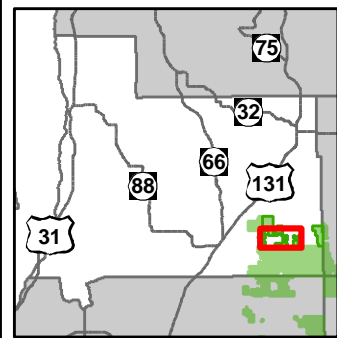
Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOE: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 Map Phase: Post-Review 0.5



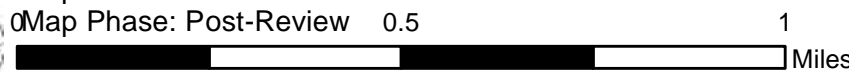
- Miris Corners
- Remonumented Section Corners
- Field Grade GPS Corners
- Parking Lot
- Motorcycle Trails (SOS License)
- Motorcycle Trails (DNR License)
- Hiking Trails
- MCCCT Trails
- ORV Trails
- Snowmobile Trails
- Designated Hiking Trails
- ORV License
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- County Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Site Prep
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Regeneration Survey
- Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- Lakes



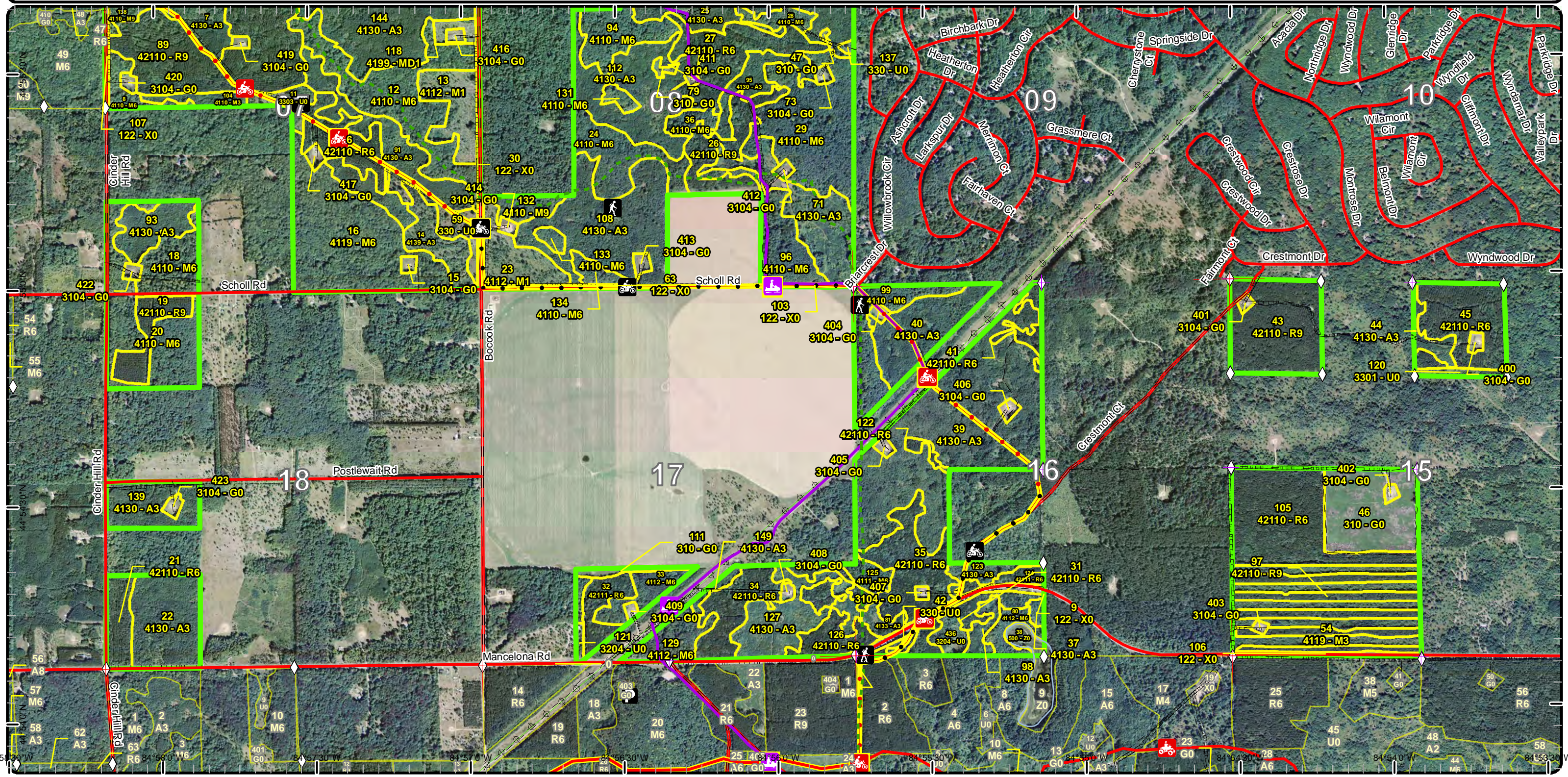
Stand Boundary Map



Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOE: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 Map Phase: Post-Review 0.5

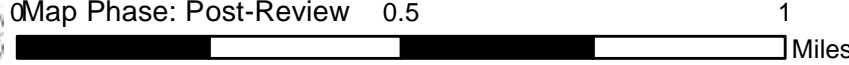
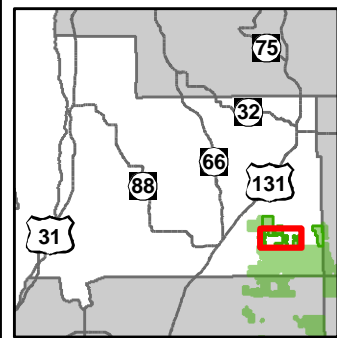


- Miris Corners
- + Remonumented Section Corners
- ◇ Field Grade GPS Corners
- P Parking Lot
- 🏍️ Motorcycle Trails (SOS License)
- 🏍️ Motorcycle Trails (DNR License)
- 🚶 Hiking Trails
- 🚴 MCCCT Trails
- 🏍️ ORV Trails
- 🚲 Snowmobile Trails
- Designated Hiking Trails
- ORV License
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- County Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Stand Boundaries
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water

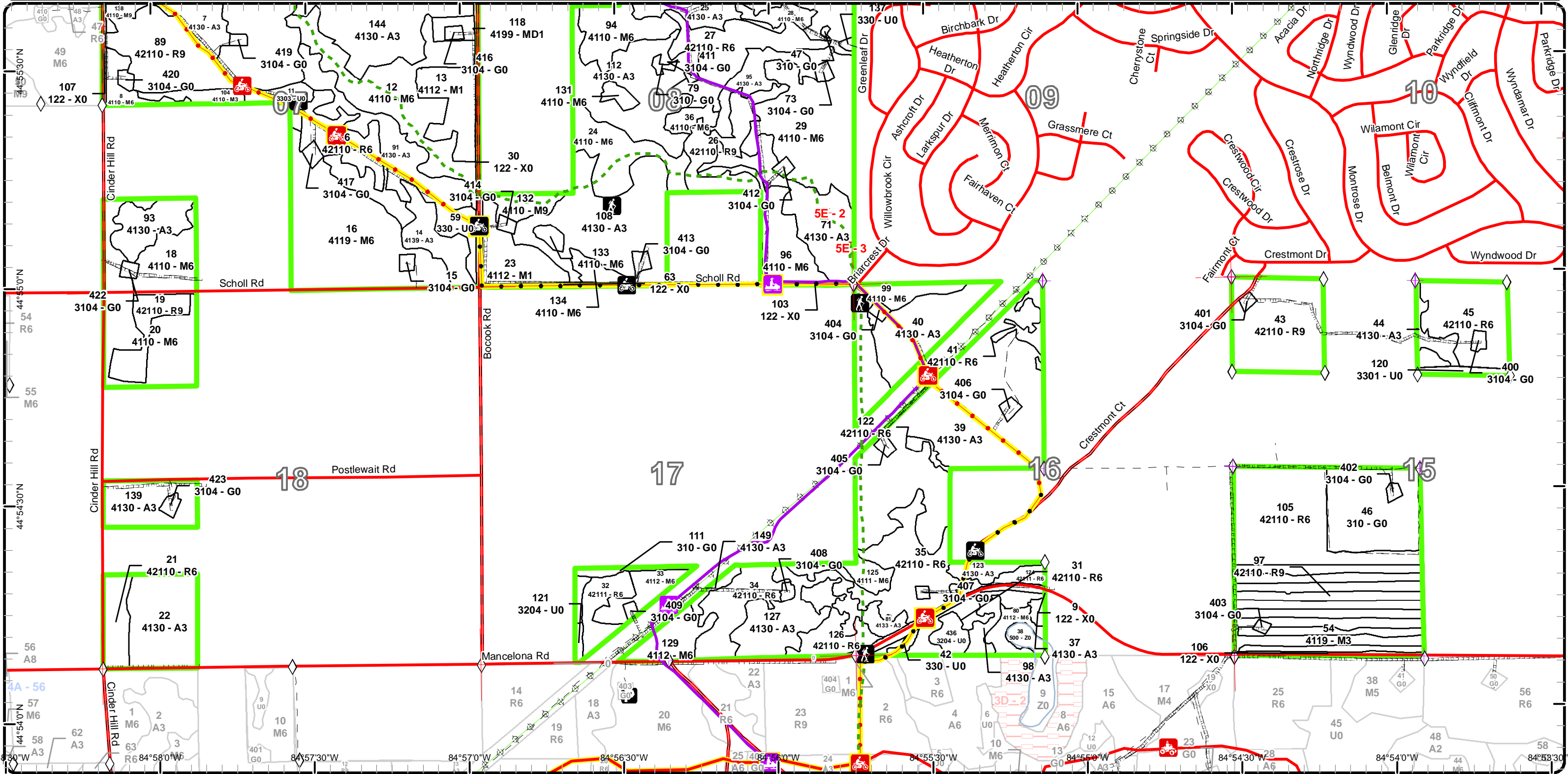


Special Conservation Areas & Site Conditions Map

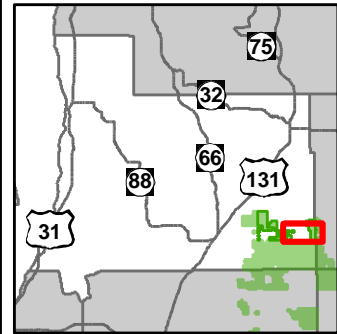
Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOE: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 Map Phase: Post-Review 0.5



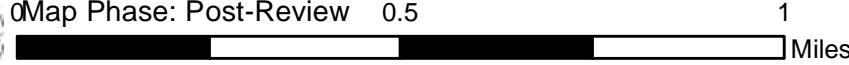
- Miris Corners
- + Remonumented Section Corners
- ◇ Field Grade GPS Corners
- P Parking Lot
- 🏍️ Motorcycle Trails (SOS License)
- 🏍️ Motorcycle Trails (DNR License)
- 🚶 Hiking Trails
- 🚲 MCCCT Trails
- 🚲 ORV Trails
- 🚲 Snowmobile Trails
- Designated Hiking Trails
- ORV License
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- County Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Unavailable
- Stand Boundaries
- 5E: Long-Term Retention



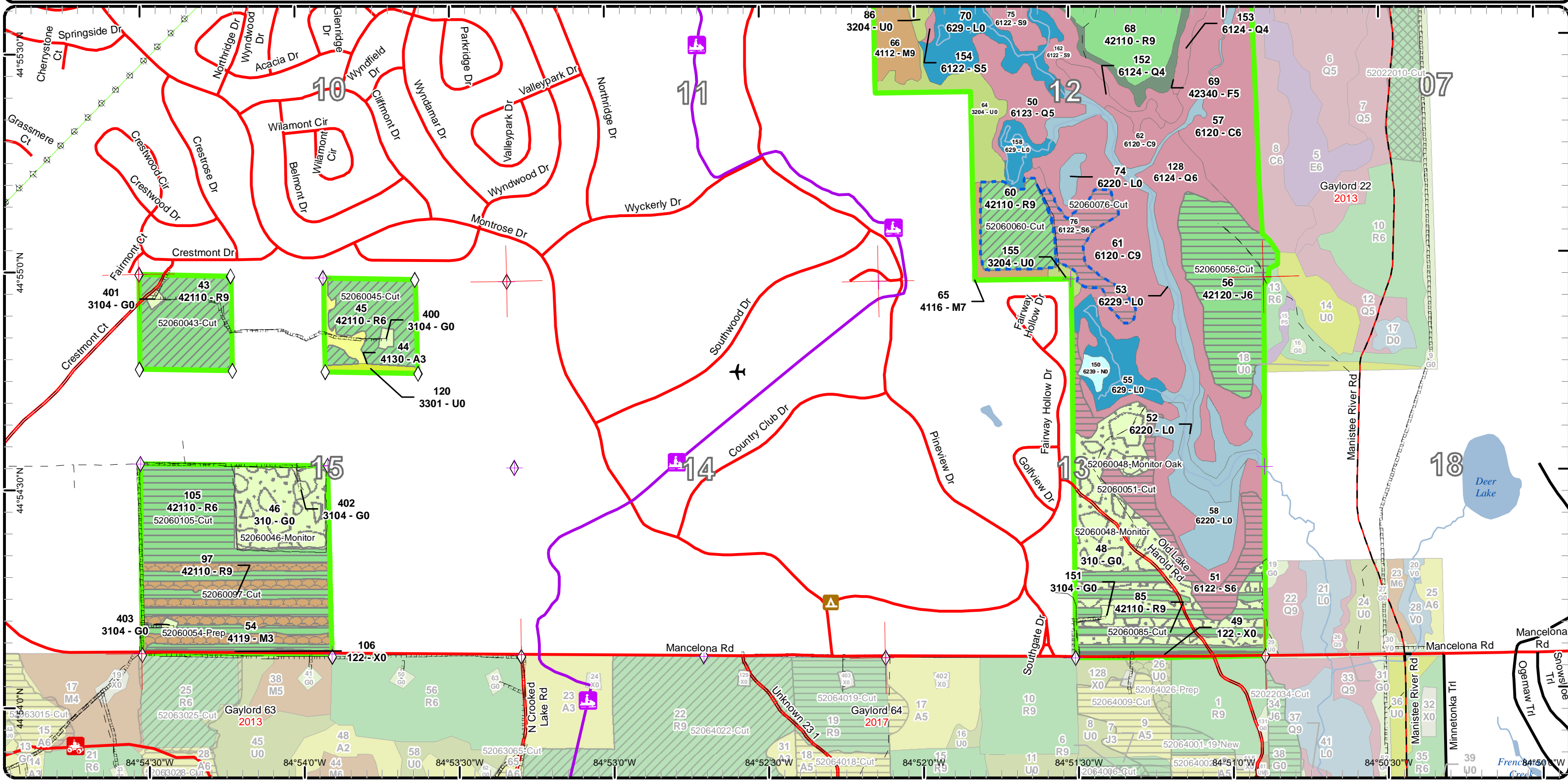
Cover Type & Treatments Map



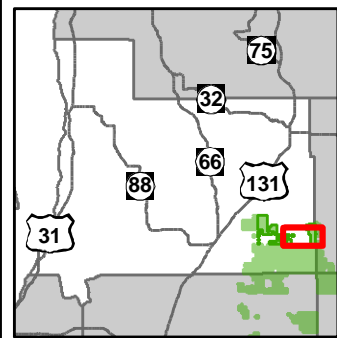
Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOE: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 Map Phase: Post-Review 0.5



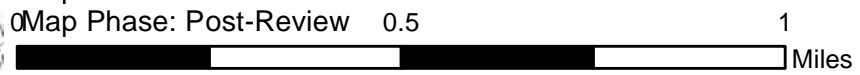
- Miris Corners
- + Remonumented Section Corners
- ◇ Field Grade GPS Corners
- ✈ Airport
- ▲ Campground
- 🚗 ORV Trails
- 🚙 Snowmobile Trails
- Designated ATV Trails
- Designated Snowmobile Trails
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Treatments with Site Conditions
- Site Prep
- Clearcut (w/Reserves)
- Regeneration Survey
- Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 413 - Aspen Types
- 421 - Planted Pines
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland
- Lakes



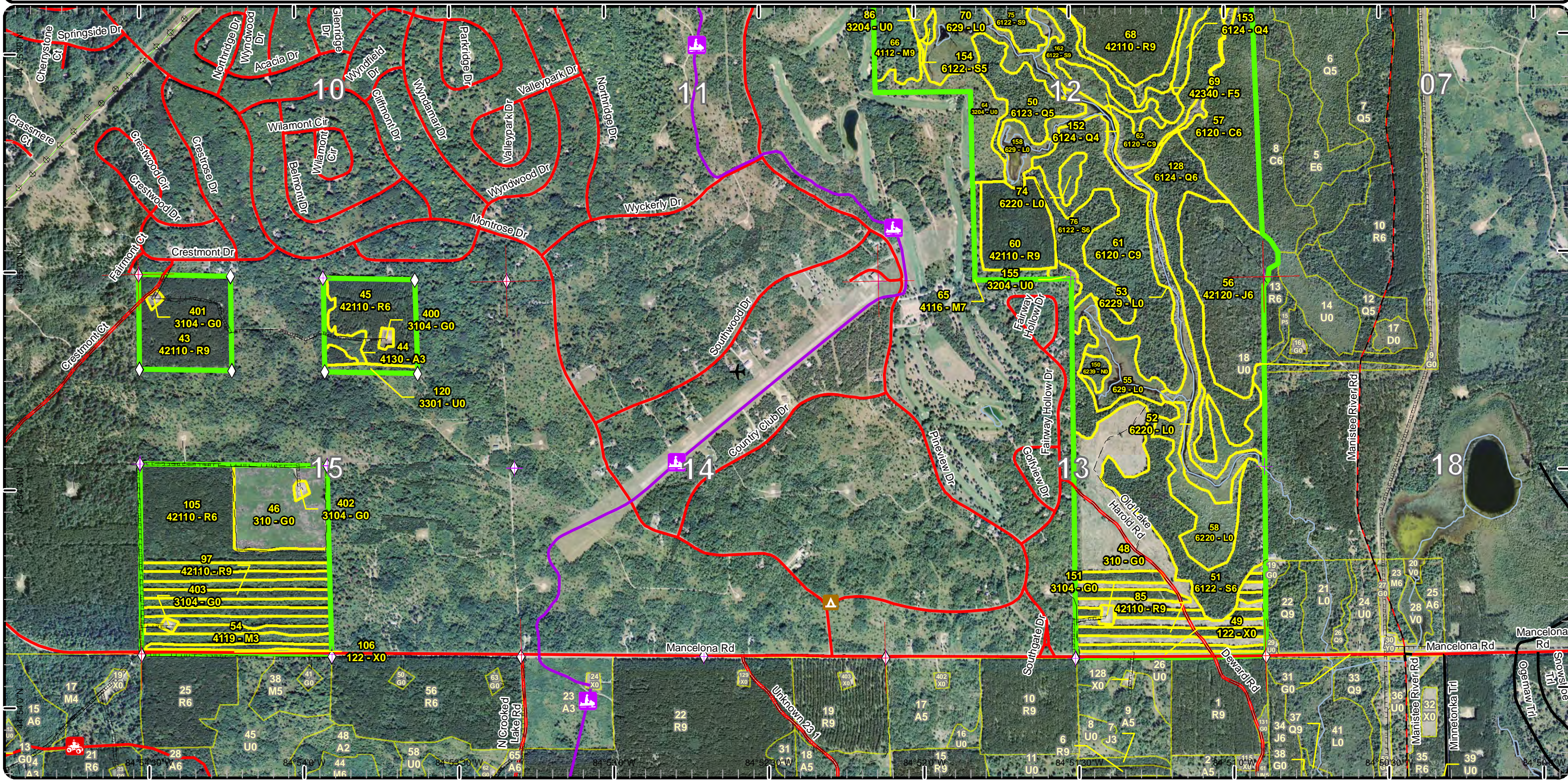
Stand Boundary Map



Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOE: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 Map Phase: Post-Review 0.5

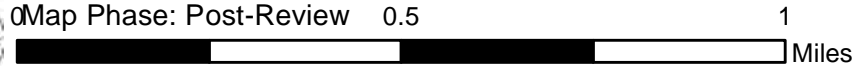
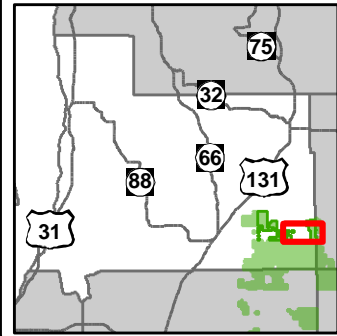


- Miris Corners
- + Remonumented Section Corners
- ◇ Field Grade GPS Corners
- ✈ Airport
- ▲ Campground
- 🛵 ORV Trails
- 🛷 Snowmobile Trails
- Designated ATV Trails
- Designated Snowmobile Trails
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Rivers
- Pipeline
- ⚡ Powerline
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 413 - Aspen Types
- 421 - Planted Pines
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland

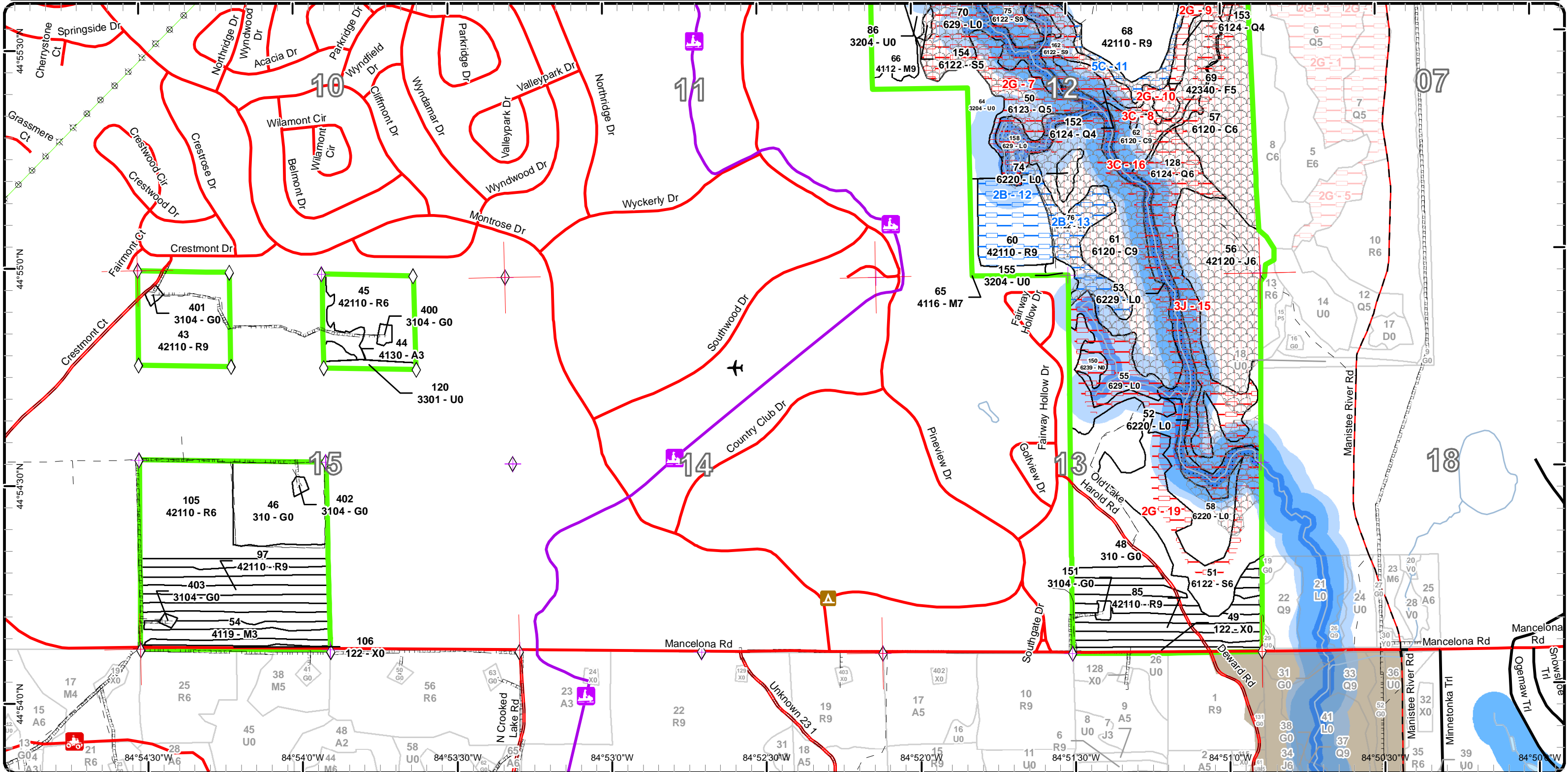


Special Conservation Areas & Site Conditions Map

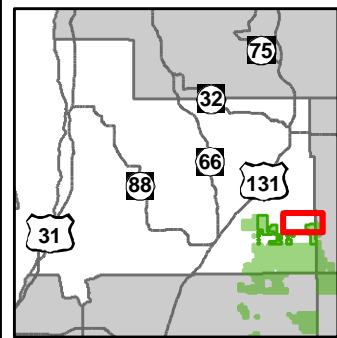
Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOE: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 Map Phase: Post-Review 0.5



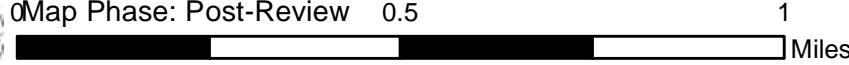
- Miris Corners
- + Remonumented Section Corners
- ◇ Field Grade GPS Corners
- ✈ Airport
- ▲ Campground
- 🚗 ORV Trails
- 🚙 Snowmobile Trails
- Designated ATV Trails
- Designated Snowmobile Trails
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- SCA Removal
- Available w/ Constraints
- Unavailable
- 2B: Unknown if access through adjacent landowner(s) is possible
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Dedicated Management Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Other SCA (No Category Assigned)



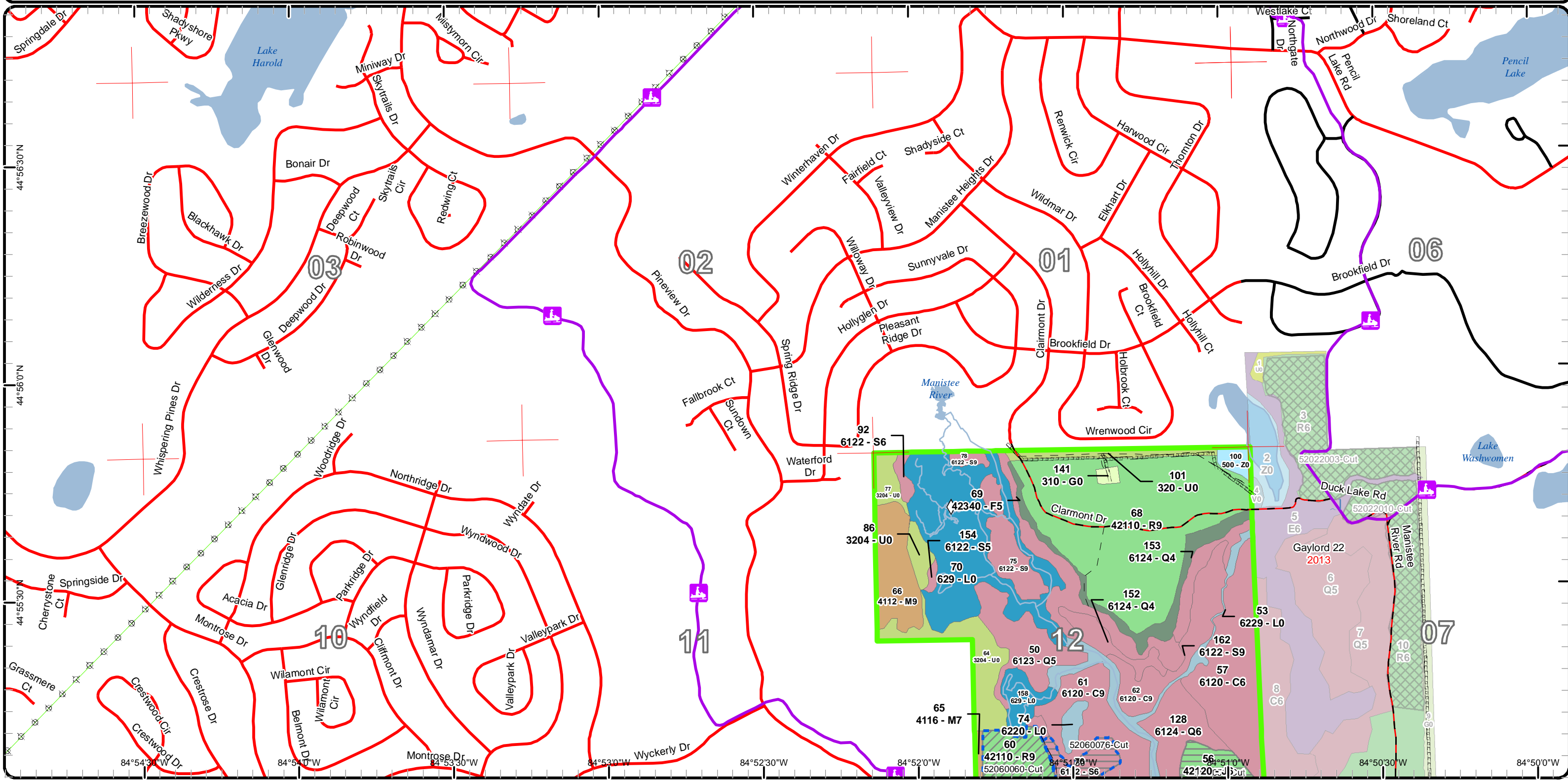
Cover Type & Treatments Map



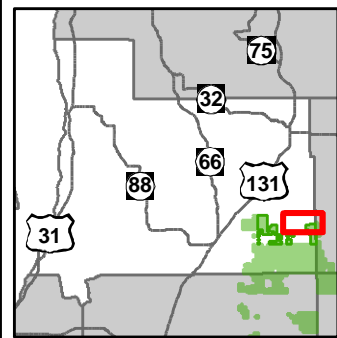
Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOY: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 Map Phase: Post-Review 0.5



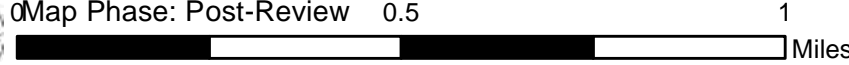
- Miris Corners
- ◇ Field Grade GPS Corners
- Culverts
- Snowmobile Trails
- Designated Snowmobile Trails
- County Paved Roads
- Paved Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Treatments with Site Conditions
- Clearcut (w/Reserves)
- Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 421 - Planted Pines
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 500 - Water
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland
- Lakes



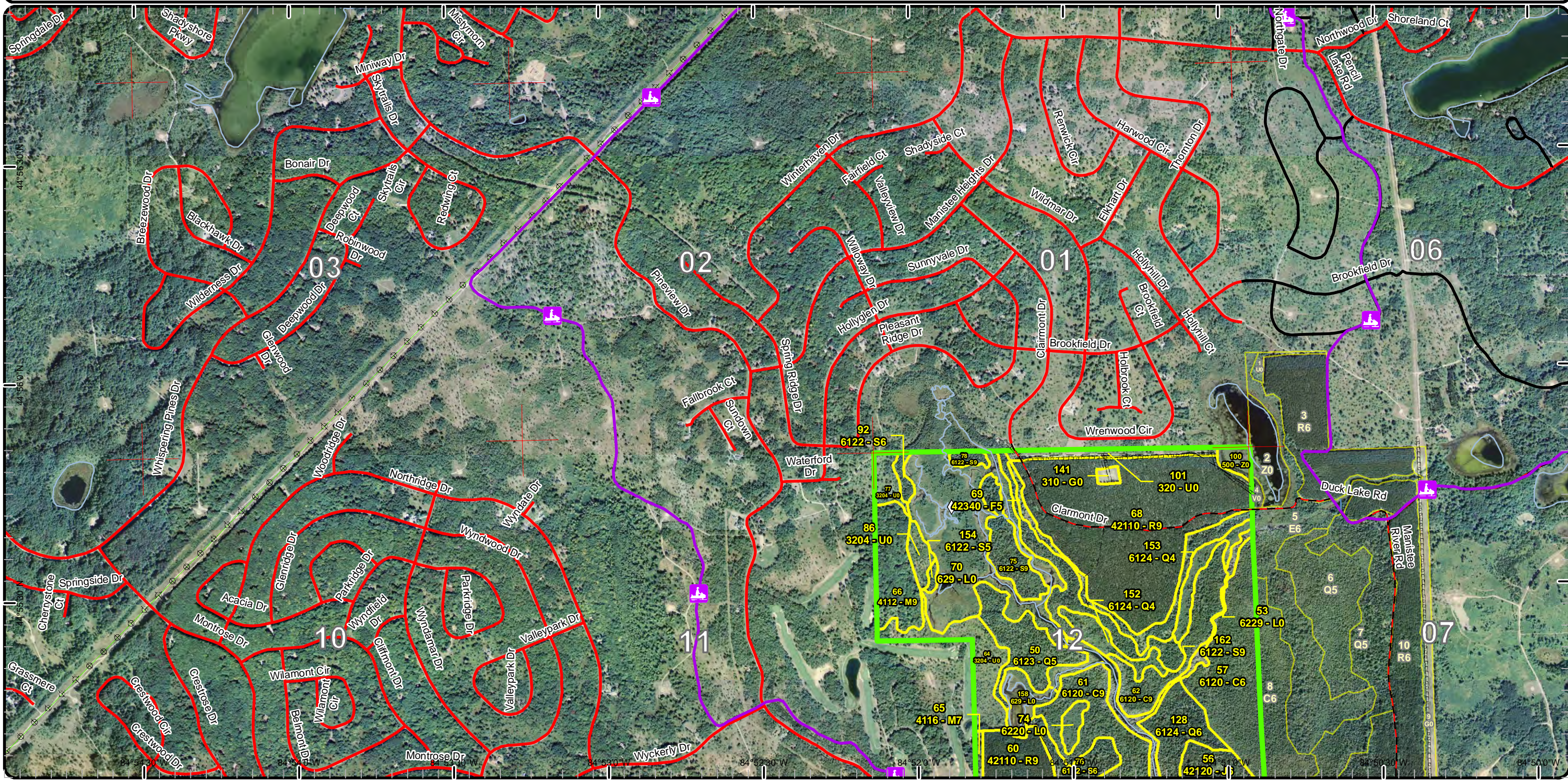
Stand Boundary Map



Compartment: 60
 T29N,R05W, Sec. 6-8, 12-13, 15-18
 County: Antrim
 Unit: Gaylord
 Mgmt Area: Grayling Outwash
 YOE: 2018
 Acres: 3168 GIS Calculated
 Examiner: Lucas Merrick
 Map Revised: 8/26/2016
 Map Phase: Post-Review 0.5



- Miris Corners
 - ◇ Field Grade GPS Corners
 - Culverts
 - Snowmobile Trails
 - Designated Snowmobile Trails
 - County Paved Roads
 - Paved Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Rivers
 - Pipeline
 - Powerline
 - Compartment Boundary
 - Stand Boundaries
- 411 - Northern Hardwood
 - 421 - Planted Pines
 - 423 - Other Upland Conifers
 - 612 - Lowland Coniferous Forest
 - 310 - Herbaceous Openland
 - 320 - Upland Shrub
 - 500 - Water
 - 622 - Lowland Shrub
 - 629 - Mixed non-forested wetland



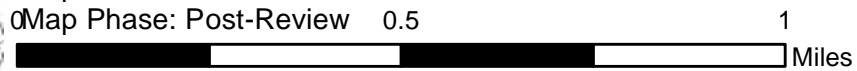
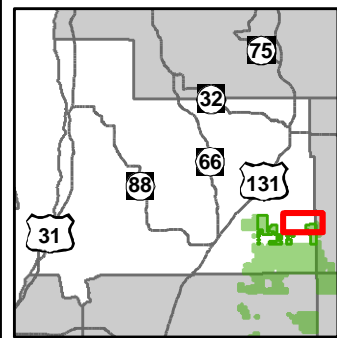
Special Conservation Areas & Site Conditions Map

Compartment: 60
T29N,R05W, Sec. 6-8, 12-13, 15-18

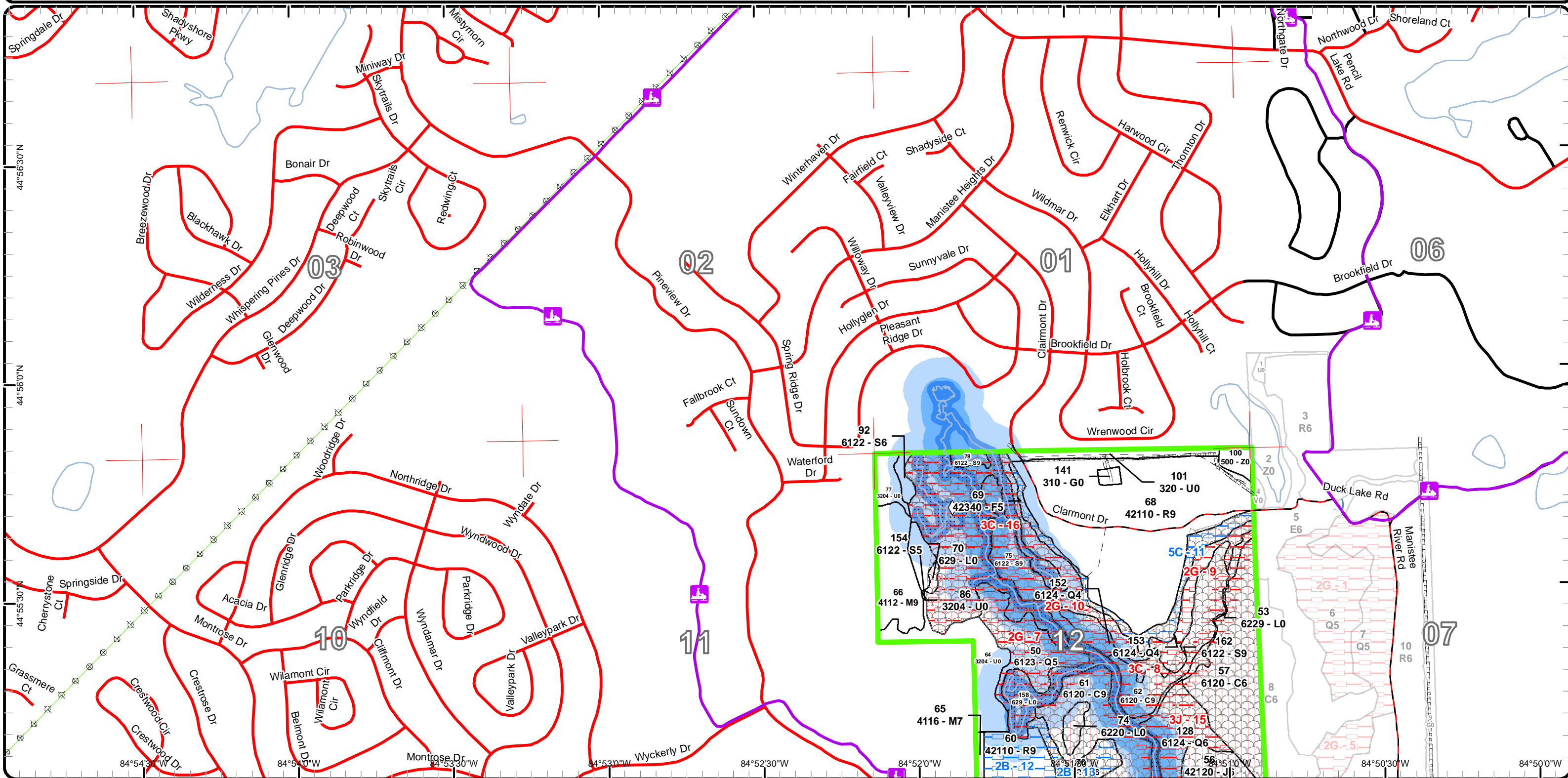
County: Antrim
Unit: Gaylord
Mgmt Area: Grayling Outwash
YOE: 2018

Acres: 3168 GIS Calculated
Examiner: Lucas Merrick
Map Revised: 8/26/2016

Map Phase: Post-Review 0.5



- Miris Corners
- Field Grade GPS Corners
- Culverts
- Snowmobile Trails
- Designated Snowmobile Trails
- County Paved Roads
- Paved Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- SCA Removal
- Available w/ Constraints
- Unavailable
- 2B: Unknown if access through adjacent landowner(s) is possible
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2G: Too wet (sensitive soils, does not include access issues)
- 3C: Legally Designated Quiet Area, Natural Area, or Wilderness
- 3J: Water quality / BMPs (stream, river, or lake)
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- High Priority Trout Stream Buffer
- Other SCA (No Category Assigned)



Report 1 – Total Acres by Cover Type and Age Class

Gaylord Mgt. Unit

Compartment 60

Year of Entry 2018

Lucas Merrick : Examiner



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	138	177	381	0	8	0	0	0	0	0	0	0	0	0	0	0	0	704
Cedar	0	0	0	0	0	0	0	0	0	128	0	0	0	0	0	0	0	0	128
Herbaceous Openland	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150
Jack Pine	0	0	0	0	0	0	57	0	0	0	0	0	0	0	0	0	0	0	57
Low-Density Trees	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Lowland Conifers	0	0	0	0	0	0	0	0	0	77	0	0	0	0	0	0	0	0	77
Lowland Shrub	163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	163
Lowland Spruce/Fir	0	0	0	0	0	0	0	1	0	60	61	0	0	0	0	0	0	0	122
Marsh	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Mixed Upland Deciduous	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Northern Hardwood	0	33	44	0	0	0	0	6	44	716	108	0	0	0	0	0	0	17	967
Red Pine	0	0	0	0	0	98	369	139	0	0	0	0	0	0	0	0	0	0	606
Upland Mixed Forest	0	0	0	0	0	0	63	0	0	0	0	0	0	0	0	0	0	0	62
Upland Shrub	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
Upland Spruce/Fir	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	16
Urban	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Water	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	424	174	221	381	0	106	489	162	44	776	374	0	0	0	0	0	0	17	3166



Report 2 – Treatment Summary

Gaylord Mgt. Unit

Year of Entry: 2018

Acres of Harvest

Compartment 60

Total Compartment Acres: 3,167

Commercial Harvest - 578
 Harvests with Site Condition - 45
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	8	0	0	0	0	0	0	0	0	8
Jack Pine	57	0	0	0	0	0	0	0	0	57
Lowland Spruce/Fir	43	0	0	0	0	0	0	0	0	43
Northern Hardwood	107	63	0	0	19	0	0	0	0	189
Red Pine	232	0	0	0	94	0	0	0	0	326
Total	448	63	0	0	113	0	0	0	0	624

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	624	39	0	0	0	106	0	0	0	769
Next Step	0	461	307	0	105	784	247	0	0	1902
Total	624	499	307	0	105	890	247	0	0	2671



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
1	52060001-25- New	22.4	4110 - Sugar Maple Association	Poletimber Well	89	81-110	Harvest	Clearcut	411 - Northern Hardwood	Even-Aged	Draft Field Boundary
Habitat Cut: No		Site Condition:									
<u>Prescription</u> Cut all trees 2" dbh and up.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Northern hardwoods dominated by sugar maple, basswood, aspen, red maple, birch and minor amounts of conifer.											
<u>Regen:</u>											
<u>Other</u> Do not leave retention. This harvest is only a small percentage of a larger stand.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
3	52060003-Cut	5.8	4130 - Aspen	Poletimber Well	44	81-110	Harvest	Clearcut	4139 - Aspen, Mixed Deciduous	Even-Aged	Draft Field Boundary
Habitat Cut: No		Site Condition:									
<u>Prescription</u> Remove all trees 2"dbh and up. Do not leave retention due to small size. Have northern boundary line trees dropped or pushed over into adjacent stand for horizontal habitat.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Aspen and misc hardwoods.											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
16	52060016-Cut	59.8	4119 - Mixed Northern Hardwoods	Poletimber Well	90	81-110	Harvest	Clearcut with Retention	411 - Northern Hardwood	Even-Aged	Draft Field Boundary
Habitat Cut: No		Site Condition:									
<u>Prescription</u> Harvest all trees 2" dbh and up. Favor pockets with yellow birch for retention.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> northern hardwoods dominated by sugar maple and basswood. Pockets of aspen are expected and should be encouraged. If natural regeneration fails address with divisions/stake holders.											
<u>Regen:</u>											
<u>Other</u> There are pockets of better quality timber along the county road that could be considered for retention as well. They will provide aesthetics and a seed source.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											
24	52060024-Cut	21.8	4110 - Sugar Maple Association	Poletimber Well	83	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Two-Aged	Draft Field Boundary
Habitat Cut: No		Site Condition:									
<u>Prescription</u> Mark to 70 sq/ft. Manage for diversity and leave standing dead and cavity trees where possible. Leave large canopy gaps 1 per 3 acres - with a minimum size of 100' x 100'											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> sugar maple, basswood, aspen, ironwood, red maple, and birch within regen canopy gaps.											
<u>Regen:</u>											
<u>Other</u> Protect walking trail and snowmobile trails from operations. Western finger is younger and smaller in diameter but could use some TSI work.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2017											



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
27	52060027-Cut	26.6	42110 - Planted Red Pine	Poletimber Well	54	111- 140	Harvest	Clearcut with Retention	4116 - Mixed N. Hardwood - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Final harvest all trees 2"dbh and up. Mark several small scattered islands for retention.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Northern hardwoods dominated by maple, basswood, birch, and aspen.

Regen:

Other Protect snowmobile trail during operations.

Comment:

Proposed Start Date: 10/01/2017

35	52060035-Cut	28.9	42110 - Planted Red Pine	Poletimber Well	49	171- 200	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 up. Leave retention along road to help with aesthetics.

Specs:

Next Step SitePrep, Trenching; SitePrep, Other - Specify; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr);

Treatments: Other, Other

Acceptable planted red pine with minimal inclusions of hardwoods.

Regen:

Other Protect walking and cycle trail from operations. Wildlife will plant areas with oak if opportunity allows.

Comment:

Proposed Start Date: 10/01/2017

43	52060043-Cut	38.0	42110 - Planted Red Pine	Sawtimber Well	56	171- 200	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
----	--------------	------	-----------------------------	-------------------	----	-------------	---------	----------------	----------------------------	-----------	-------------------------

Habitat Cut: No**Site Condition:**

Prescription Thin to an average of 120 BA for stand.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Target poor form and suppressed trees.

Comment:

Proposed Start Date: 10/01/2017

45	52060045-Cut	29.2	42110 - Planted Red Pine	Poletimber Well	55	141- 170	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
----	--------------	------	-----------------------------	--------------------	----	-------------	---------	----------------	----------------------------	-----------	-------------------------

Habitat Cut: No**Site Condition:**

Prescription Thin to an average of 120BA for stand

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Target poor form and suppressed trees. Pockets of walk through present. Stand has a variable BA range due to hard wood inclusions being removed during previous treatments.

Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
46	52060046- Monitor	30.9	310 - Herbaceous Openland	Nonstocked	0	Unspec ified	Monitoring	Artificial Regen(1yr)	4211 - Planted Red Pine	Even-Aged	Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Check Regen.											
<u>Specs:</u>											
<u>Next Step</u> Other, Other; Pesticide, Aerial; Monitoring, Artificial Regen(3yr)											
<u>Treatments:</u>											
<u>Acceptable</u> Fully stocked Red Pine stand with areas of Oak planted for mast production.											
<u>Regen:</u>											
<u>Other</u> Previous Year 1 monitoring treatment in the history layer is incorrect... this treatment is the year 1 regen monitoring treatment.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 04/20/2018											
48	52060048- Monitor	73.7	310 - Herbaceous Openland	Nonstocked	0	Unspec ified	Monitoring	Artificial Regen(1yr)	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Monitor regeneration.											
<u>Specs:</u>											
<u>Next Step</u> Pesticide, Aerial; Monitoring, Artificial Regen(3yr)											
<u>Treatments:</u>											
<u>Acceptable</u> Well stocked planted red pine.											
<u>Regen:</u>											
<u>Other</u> Herbicide application for site prep on 09/07/2013. Trenched on 10/06/2014.											
<u>Comment:</u> Planted 04/19/2015 with 1028/ac 1-0 PRT stock.											
<u>Proposed Start Date:</u> 06/10/2016											
48	52060048- Monitor Oak	1.3	310 - Herbaceous Openland	Nonstocked	0	Unspec ified	Monitoring	Artificial Regen(1yr)	412 - Oak Types	Even-Aged	Draft Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Check oak planting.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Artificial Regen(3yr)											
<u>Treatments:</u>											
<u>Acceptable</u> Medium to well stocked Oak.											
<u>Regen:</u>											
<u>Other</u> Planted 05/10/2015 with 1350 red oak 2-0 Wyman stock.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 04/20/2016											
51	52060051-Cut	24.5	6122 - Black Spruce Well	Poletimber	87	111- 140	Harvest	Clearcut with Retention	6122 - Black Spruce	Even-Aged	Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Remove all trees 2"dbh and up. Do not cut white pine. Leave scattered 1/4 acre islands throughout the sale area. Concentrate islands in the sensitive soil areas.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable</u> Spruce, fir, cedar, red maple, aspen, white pine and tamarack with lowland brush.											
<u>Regen:</u>											
<u>Other</u> Have boundary line trees dropped or pushed over and left on site. Also include dead and down specs within the sale area to benefit hare and grouse. Leave at least 1/3 of tops if sale is chipped.											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/01/2016											



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
54	52060054- Prep	38.9	4119 - Mixed Northern Hardwoods	Sapling Well	17	Immature	SitePrep	Roller Chopping	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Site prep and plant with adjacent stands to make a contiguous block of regenerating red pine.

Specs:

Next Step SitePrep, Other - Specify; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Other, Other
Treatments:

Acceptable planted red pine with minor inclusions of mixed upland species

Regen:

Other Wildlife will plant areas with oak if opportunity allows.

Comment:

Proposed Start Date: 10/01/2017

56	52060056-Cut	56.9	42120 - Planted Jack Pine	Poletimber Well	57	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary
----	--------------	------	------------------------------	--------------------	----	--------	---------	----------------------------	-------------------------------	-----------	-------------------------

Habitat Cut: No**Site Condition:**

Prescription Leave scattered retention islands throughout stand, trying to leave representation of all current canopy species. Drop boundary line trees into adjacent q-type for habitat. Leave scattered brush and/or top piles throughout sale area that exceed 24" for habitat (1 per 5 acres). Apply grouse and hare dead and down creation.

Specs:

Next Step Planting, Other - Specify

Treatments:

Acceptable jack pine, fir, red maple, aspen, birch, and misc lowland and upland species. Open areas are expected. Minimum stocking in pockets with open areas is acceptable.

Regen:

Other wildlife will plant hard and soft mast species as funding allows.

Comment:

Proposed Start Date: 10/01/2017

60	52060060-Cut	26.6	42110 - Planted Red Pine	Sawtimber Well	54	201+	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
----	--------------	------	-----------------------------	-------------------	----	------	---------	------------------------	----------------------------	-----------	-------------------------

Habitat Cut: No**Site Condition: Unknown Access**

Prescription Remove every third row.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other remove hardwood components as needed.

Comment:

Proposed Start Date: 10/01/2017

76	52060076-Cut	18.8	6122 - Black Spruce	Poletimber Well	94	81-110	Harvest	Clearcut with Retention	6124 - Lowland Spruce-Fir	Even-Aged	Draft Field Boundary
----	--------------	------	---------------------	--------------------	----	--------	---------	----------------------------	------------------------------	-----------	-------------------------

Habitat Cut: No**Site Condition: Unknown Access**

Prescription Remove all trees 2" dbh and up. Leave small scattered islands throughout the sale area.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable spruce, fir, cedar, white pine, tamarack, aspen, red maple at minimal acceptable stocking levels. If natural regen fails address with divisions and stake holders.

Regen:

Other Boundary line tree should be cut or pushed over and left laying horizontal on site. Use dead and down specs favoring hare and grouse.

Comment:

Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
-----------------------	----------------	-------	-----------------	--------------	-----------	----------	----------------	------------------	----------------------	---------------	-----------------

85	52060085-Cut	28.8	42110 - Planted Red Pine	Sawtimber Well	61	171-200	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Field Boundary
----	--------------	------	--------------------------	----------------	----	---------	---------	-------------------------	-------------------------	-----------	----------------

Habitat Cut: No

Site Condition:

Prescription Final harvest all trees 2" dbh and up. Leave retention along parcel edges to facilitate planting operations.

Specs:

Next Step SitePrep, Trenching; SitePrep, Other - Specify; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr);
Treatments: Other, Other

Acceptable planted red pine with inclusions of natural upland mixed species.

Regen:

Other Manage stumps and residual slash to benefit plating operations. Wildlife will plant areas with oak if opportunity allows

Comment:

Proposed Start Date: 10/01/2016

88	52060088-Cut	41.2	4110 - Sugar Maple Association	Sawtimber Well	89	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Two-Aged	Draft Field Boundary
----	--------------	------	--------------------------------	----------------	----	---------	---------	-----------------------	-------------------------	----------	----------------------

Habitat Cut: No

Site Condition:

Prescription Reduce average BA to 70sq/ft. Leave one large regeneration gap 100' x100' minimum 1 for every three acres.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable northern hardwoods dominated by sugar maple, basswood, yellow birch, red maple, aspen, and minor components of conifer.

Regen:

Other Some topography but should not be equipment limiting. Protect snowmobile and walking trail during operations.

Comment:

Proposed Start Date: 10/01/2017

89	52060089-Cut	67.6	42110 - Planted Red Pine	Sawtimber Well	54	141-170	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 up. Leave retention in a single island in the northeast between the hardwood stands.

Specs:

Next Step SitePrep, Trenching; SitePrep, Other - Specify; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr);

Treatments: Other, Other

Acceptable planted red pine with minor inclusions of hardwood.

Regen:

Other Protect cycle and walking trail from operations.

Comment: Wildlife will plant areas with oak if opportunity allows.

Proposed Start Date: 10/01/2017

96	52060096-Cut	19.6	4110 - Sugar Maple Association	Poletimber Well	81	81-110	Harvest	Clearcut with Retention	411 - Northern Hardwood	Even-Aged	Draft Field Boundary
----	--------------	------	--------------------------------	-----------------	----	--------	---------	-------------------------	-------------------------	-----------	----------------------

Habitat Cut: No

Site Condition:

Prescription Cut all trees 2" dbh and up. Leave retention in islands.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A northern hardwood stand dominated by sugar maple and basswood. If natural regeneration fails plant stand to red pine.

Regen:

Other Protect snowmobile and walking trail during operations.

Comment:

Proposed Start Date: 10/01/2017



Standa	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
97	52060097-Cut	33.8	42110 - Planted Red Pine	Sawtimber Well	56	171-200	Harvest	Clearcut with Retention	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Final harvest all trees 2" dbh and up. Leave retention along parcel edges.

Specs:

Next Step SitePrep, Trenching; SitePrep, Other - Specify; Planting, Initial Plant
Treatments:

Acceptable planted red pine with minor inclusions of mixed upland species.

Regen:

Other Mangle slash and stumps to aid with reforestation efforts.

Comment:

Proposed Start Date: 10/01/2017

105	52060105-Cut	46.7	42110 - Planted Red Pine	Poletimber Well	55	141-170	Harvest	Clearcut with Retention	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary
-----	--------------	------	--------------------------	-----------------	----	---------	---------	-------------------------	--------------------------	-----------	----------------------

Habitat Cut: No**Site Condition:**

Prescription Final harvest all trees 2" dbh and up.

Specs:

Next Step SitePrep, Trenching; SitePrep, Other - Specify; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr);
Treatments: Other, Other

Acceptable planted red pine with minor inclusions of mixed upland species.

Regen:

Other Manage stumps and residual slash to help with reforestation efforts. Wildlife will plant areas with oak if opportunity allows.

Comment:

Proposed Start Date: 10/01/2017

114	52060114-Cut	2.3	4130 - Aspen	Poletimber Well	44	Unspecified	Harvest	Clearcut	413 - Aspen	Even-Aged	Draft Field Boundary
-----	--------------	-----	--------------	-----------------	----	-------------	---------	----------	-------------	-----------	----------------------

Habitat Cut: No**Site Condition:**

Prescription Remove all trees 2" and up. Do not leave retention due to small size of stand.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen and mixed hardwoods.

Regen:

Other Protect snowmobile trail during operations.

Comment:

Proposed Start Date: 10/01/2017

125	52060125-Cut	5.0	4111 - S.Maple, Hard Mast Association	Poletimber Well	81	81-110	Harvest	Clearcut	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary
-----	--------------	-----	---------------------------------------	-----------------	----	--------	---------	----------	--------------------------	-----------	----------------------

Habitat Cut: No**Site Condition:**

Prescription Remove all trees 2" dbh and up. Do not leave retention.

Specs:

Next Step SitePrep, Trenching; SitePrep, Other - Specify; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr);
Treatments: Other, Other

Acceptable planted red pine with minor inclusions of hardwoods.

Regen:

Other Wildlife will plant areas with oak if opportunity allows.

Comment:

Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
130	52060130-Cut	3.4	4110 - Sugar Maple Association	Poetimber Well	88	111- 140	Harvest	Crown Thinning	411 - Northern Hardwood	Even-Aged	Draft Field Boundary

Habitat Cut: No **Site Condition:**

Prescription Mark to 70 BA. Favor species diversity.
Specs:

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

Acceptable This stand is an improvement harvest.
Regen:

Other Set up as "type 2" fuel wood sales.
Comment:

Proposed Start Date: 10/01/2017

145	52060145-Cut	16.0	4110 - Sugar Maple Association	Sawtimber Well	91	141- 170	Harvest	Crown Thinning	411 - Northern Hardwood	Even-Aged	Draft Field Boundary
-----	--------------	------	-----------------------------------	-------------------	----	-------------	---------	----------------	----------------------------	-----------	-------------------------

Habitat Cut: No **Site Condition:**

Prescription Thin stand to 80 sq/ft. This stand has potential for future high quality logs. Remove poor form and account for spacing. Favor diversity of
Specs: species where possible.

Next Step
Treatments:

Acceptable This is an improvement harvest and regeneration is currently not an objective.
Regen:

Other Leave current standing dead and cavity trees where possible. Protect snowmobile trail during operations.
Comment:

Proposed Start Date: 10/01/2017

**Total Treatment
Acreage Proposed: 768.5**

Report 4 – Site Conditions

Gaylord Mgt. Unit
Lucas Merrick : Examiner

Compartment: 60
Year of Entry: 2018

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions						
		With Condition	Not Available		2B	5F	2G	3C	3J	5E	
704	701	0	3	Aspen							3
128	44	0	84	Cedar			48	36			
150	150	0	0	Herbaceous Openland							
57	57	0	0	Jack Pine							
22	22	0	0	Low-Density Trees							
77	0	0	77	Lowland Conifers			24	25	28		
163	30	0	133	Lowland Shrub				133			
122	36	22	64	Lowland Spruce/Fir	22		30	31			3
3	0	0	3	Marsh				3			
3	3	0	0	Mixed Upland Deciduous							
968	968	0	0	Northern Hardwood							
605	577	27	1	Red Pine	27						1
62	62	0	0	Upland Mixed Forest							
47	47	0	0	Upland Shrub							
15	0	15	0	Upland Spruce/Fir		15					
32	32	0	0	Urban							
7	7	0	0	Water							
3,167	2,739	64	365	Total Forested Acres	48	15	102	227	28		7
	86%	2%	11%	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	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Sale #520040801							
2	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gaylord Mgt. Unit
Lucas Merrick : Examiner

Compartment: 60
Year of Entry: 2018

3	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Sale #520040801							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	48	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	5E: Long-Term Retention	1	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	18	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	7	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gaylord Mgt. Unit
Lucas Merrick : Examiner

Compartment: 60
Year of Entry: 2018

9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Available	5F: Evaluated for Forest Health Considerations	16	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
Comments: Harvest and replant with adjacent red pine stand when it is final harvested and restarted.							
12	Available	2B: Unknown if access through adjacent landowner(s) is possible	27	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Available	2B: Unknown if access through adjacent landowner(s) is possible	22	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gaylord Mgt. Unit
Lucas Merrick : Examiner

Compartment: 60
Year of Entry: 2018

15	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	28	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	3C: Legally Designated Quiet Area, Natural Area, or Wilderness	221	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments: Natural river zone. Manistee river							
17	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
19	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
20	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
----------	--------------	-------------	----------------	-------

Comments

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

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

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

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or 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 and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Dedicated Management Areas	Such areas are dedicated by the DNR Director for specific management uses through the promulgation of rules, as governed by Part 5, Department of Natural Resources, of the NREPA (MCL 324.502(2) and 324.504). Section 38 of the Administrative Procedures Act (MCL 24.238) provides for public requests for the promulgation of rules. This is an active program, with one proposed site currently under review by the DNR.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4110 - Sugar Maple Association	Poletimber Well	253.8	89	81-110	Northern hardwood with limby, more clump grown quality. Variable stand, pockets poorly stocked. Pockets have desirable crop trees with good form. History of selection cuts throughout the stand. BA's ranged from 40sq/ft - 120sq/ft with an overall average of 89sq/ft.
2	42110 - Planted Red Pine	Poletimber Well	17.9	54	111-140	Sugar and red maple in understory. Pockets of hardwoods in canopy. Average red pine with potential for higher quality sticks.
3	4130 - Aspen	Poletimber Well	5.8	44	81-110	A good sugar maple under story. Big tooth in west and quaking in the east.
4	4110 - Sugar Maple Association	Poletimber Well	71.1	84	81-110	Rolling topo. A few elm can be found in the canopy. A decent amount in the 10-12" range. 50/50 poles logs will be a saw log stand in 10.
5	4319 - Mixed Upland Forest	Poletimber Well	62.5	54	81-110	Planted red pine. Ash found in north. Large pockets of aspen and northern hardwood regen. Extensive porcupine damage throughout. Ash and beech in poor condition. A well established hardwood understory present.
6	42110 - Planted Red Pine	Poletimber Well	16.8	54	141-170	Porcupine damage and some poor form. One of the better looking plantings in the compartment.
7	4130 - Aspen	Sapling Well	25.1	26	Immature	Many 5 -6" DBH sticks. Lots of 3-4" DBH sticks too. Open pockets heavy to shrubs. SE more to big tooth, northwest heavy to quaking.
8	4110 - Sugar Maple Association	Poletimber Well	6.5	81	81-110	Clumpy stand of basswood and maple. A few pockets of open areas with ironwood regeneration.
12	4110 - Sugar Maple Association	Poletimber Well	44.1	84	81-110	Pockets of just pulp. Lots of doubles and knots. Saw 1 white pine in canopy. Watch for walking trail.
13	4112 - Maple, Beech, Cherry Association	Sapling Poor	16.9	5	Immature	5- 10' tall. Pockets of raspberry. Close to 50% canopy cover. A few pockets of advanced regen left from harvest.
14	4139 - Aspen, Mixed Deciduous	Sapling Well	13.7	5	Immature	Stand had jack pine and aspen removed. Many pockets of advanced regen were left behind as well as pockets of pole size timber in the north. A few pockets look like other areas that had jack pine removed with stump sprout sugar maple dominating canopy. Advanced regen pockets estimated to be approx. 14yr old.
16	4119 - Mixed Northern Hardwoods	Poletimber Well	59.8	90	81-110	pockets of cherry and iron wood. A few nice stems but overall low quality. Pockets of quaking aspen. Better looking timber along rd. Nice terrain. BBD present.
17	4139 - Aspen, Mixed Deciduous	Sapling Well	9.1	17	Immature	A regenerating aspen/ hardwood stand. Approx 25' tall. Some of the aspen starting to fall apart.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	4110 - Sugar Maple Association	Poletimber Well	16.3	83	51-80	Lower quality stand.
19	42110 - Planted Red Pine	Sawtimber Well	12.1	54	111-140	A few scattered hardwoods in canopy. A quality stand of red pine. Extensive turkey activity in stand.
20	4110 - Sugar Maple Association	Poletimber Well	34.9	81	81-110	Several area of stump sprout origin. Variable stand. Pockets of good quality mixed with below average quality. BBD in stand. Understory stocking also variable.
21	42110 - Planted Red Pine	Poletimber Well	10.8	54	111-140	Pockets of aspen included in stand. Heavy maple understory. Decent looking red pine but a below average planting.
22	4130 - Aspen	Sapling Well	29.0	29	Immature	Open brushy pockets found throughout. A few scotch pine can be found in stand. Small makeshift/illegal hunting cabin found in NW, does not look like it has been used for a while.
23	4112 - Maple, Beech, Cherry Association	Sapling Poor	16.4	5	Immature	sugar maple and red maple stump sprouts. Plenty of raspberry too. Black cherry was left throughout the sale area. Many sprouts with browse damage but others well above the browse line.
24	4110 - Sugar Maple Association	Poletimber Well	21.8	83	111-140	Walking trail in stand. Some nice cavity trees present. Larger remnant trees with open grown qualities also present.
25	4130 - Aspen	Sapling Well	87.0	25	Immature	A regenerating aspen stand
26	42110 - Planted Red Pine	Sawtimber Well	18.6	54	141-170	Southern portions have the best quality. Possible historic encroachment in the south? A few planted wp mixed in with red pine in rows. Quality varies.
27	42110 - Planted Red Pine	Poletimber Well	26.6	54	111-140	Extensive understory throughout. Porcupine damage is impacting majority of stand. Many trees exhibit poor form. A few acres in northwest were treated with stand 112 (A3). All trees except red pine were removed. Avg BA in this area is 60.
28	4110 - Sugar Maple Association	Poletimber Well	5.3	88	81-110	Small stand of hwdws left during aspen prescriptions. Several nice maple stems in stand.
29	4110 - Sugar Maple Association	Poletimber Well	48.4	89	81-110	Nice pocket of stems in the NW. Variable quality. Surprising amount of yellow birch stems.
31	42110 - Planted Red Pine	Poletimber Well	11.1	49	141-170	Variable understory, full coverage in some areas and open in others. Aspen clone on west boundary of stand with suppressed red pine in the understory.
32	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	10.4	49	141-170	Large patches of hardwood throughout. Southern portions of stand look better and have better red pine densities. Some porcupine damage.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
33	4112 - Maple, Beech, Cherry Association	Poletimber Well	11.4	92	81-110	Many stump sprout origin hardwoods. A few pockets with sugar maple regeneration. A stick nest found in stand. Elm and beech are also found in the canopy. Some potential quality stems also present.
34	42110 - Planted Red Pine	Poletimber Well	18.5	49	141-170	Pockets of aspen mixed with the planted red pine. Pockets of porcupine damage. Regen thickest around perimeter of stand. Small pocket of dead (10 - 11 trees) in the south with evidence of bark beetle.
35	42110 - Planted Red Pine	Poletimber Well	31.7	49	171-200	Row definition difficult to interpret. Some rolling terrain with a depression in stand. Poor quality in northwest portions. Pockets of hdwds mixed in. An old railroad grade runs through stand.
36	4110 - Sugar Maple Association	Poletimber Well	4.8	88	81-110	Small stand left from previous aspen management prescriptions. Lots of small diameter mixed in with scattered logs. Very open understory. Many stump sprout origin.
37	4130 - Aspen	Sapling Well	1.8	18	Immature	A few stems of BTA also present. A regenerating aspen stand in the 20' tall range.
39	4130 - Aspen	Sapling Well	103.8	28	Immature	Several areas with a high canopy percentage of cherry. Some of the quaking aspen starting to break up. Very close to being an A6. Multiple openings with blackberry scattered throughout.
40	4130 - Aspen	Sapling Well	26.3	17	Immature	A few small pockets of planted pine present. Variable quality, a few pockets close to merchantable.
41	42110 - Planted Red Pine	Poletimber Well	5.5	49	141-170	Porcupine damage in the north. Much of plantation failed in north and is mixed in with red maple and the aspen.
43	42110 - Planted Red Pine	Sawtimber Well	38.0	56	171-200	A few large canopy gaps from where hdwd component was removed. Understory density varies from M-F. BA was fairly consistent- Avg was 178sq/ft
44	4130 - Aspen	Sapling Well	4.9	18	Immature	A regenerating aspen stand 20 -30' tall.
45	42110 - Planted Red Pine	Poletimber Well	29.2	55	141-170	Porcupine damage in north. Variable stand, BA from plots ranged from 110 - 220. Areas with hardwood competition were released more. Southwest corner was not entered during last treatment. Avg BA was 169.
50	6123 - Lowland Fir	Poletimber Medium	21.1	94	51-80	Wet. Smaller diameters. Pockets of open areas throughout. Some wind throw.
51	6122 - Black Spruce	Poletimber Well	59.9	87	111-140	Variable understory. A few pockets of lowland hdwds . Scattered large diameter white pine.
54	4119 - Mixed Northern Hardwoods	Sapling Well	38.9	17	Immature	Regeneration up to 20' in some locations. Snowshoe hare tracks in stand. Some red pine has seeded in the understory.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	42120 - Planted Jack Pine	Poletimber Well	56.9	57	81-110	Tall spindly jack pine with poor crown ratios. Pockets of dead. Old relic stumps throughout stand. Understory fairly open.
57	6120 - Lowland Cedar	Poletimber Well	43.4	94	111-140	Plenty of alder in understory. Variable stand BA's ranged from 60 - 180sq/ft. Wind throw throughout. Pockets of saw log cedar but a lot in the 7-8" range also. Very thick alder understory in south. Pockets with very little understory in north.
60	42110 - Planted Red Pine	Sawtimber Well	26.6	54	201+	Fairly open understory. Stand is in good condition and of good quality. Many 6 -7 stick trees. Rolling topo. A couple red maple pockets in the north. Cherry and birch also present. Witch hazel and beaked hazel nut present in understory.
61	6120 - Lowland Cedar	Sawtimber Well	63.0	94	51-80	A variable stand, pockets with 140 sq/ft of cedar mixed in with wet areas dominated by alder with 10sq/ft of timber. Some wind throw.
62	6120 - Lowland Cedar	Sawtimber Well	21.7	95	141-170	Predominantly cedar with black spruce and balsam fir intermixed. Mixture of poles and logs. Decent quality black spruce. Some areas thick with alder and some areas have heavy fir subcanopy. Heavy porcupine browse on many cedar canopies. Stand is wet/mucky and harvesting would be difficult. Must cross creek or alder strip to access.
65	4116 - Mixed N. Hardwood - Aspen	Sawtimber Poor	6.1	66	1-50	A couple white pine also present in stand. Good looking pockets of witch hazel and serviceberry. North mostly red maple, south has sugar maple. Large open grown and clumpy hardwoods.
66	4112 - Maple, Beech, Cherry Association	Sawtimber Well	20.8	93	81-110	Open grown quality and clumpy. Poor understory. A pocket of big tooth aspen in NE. Topo drops off quickly towards river drainage.
67	4110 - Sugar Maple Association	Poletimber Well	1.7	84	111-140	Small pocket of hardwoods left behind during aspen treatments. Poor access, small size.
68	42110 - Planted Red Pine	Sawtimber Well	108.8	60	141-170	North of Clarmont Drive was third row thinned in 1998, and south of Clarmont Drive was third row thinned in 1988. Both areas were thinned from below in 2012. The south portion might have slightly larger average DBH and may be slightly higher in BA, but ultimately the same stand. Row direction varies in some areas. Decent quality overall.
69	42340 - Upland Spruce/Fir	Poletimber Medium	15.5	61	81-110	A little higher topography and not wet/mucky like adjacent stand to south. Density and BA vary greatly. Some areas are fairly thick with fir/spruce, but other areas are quite open. Some scattered log sized fir/spruce.
71	4130 - Aspen	Sapling Well	28.9	7	Immature	A regenerating aspen/hdwd stand. Open pockets with blackberry. Islands of advanced hardwood regeneration left throughout. A few scattered log trees. Retention left along eastern boundary line and a small island in middle.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
72	4110 - Sugar Maple Association	Poletimber Well	33.4	83	81-110	Nice cavity trees present. A variable stand with nice stems mixed in with clumps. Very close to sawlog size. Understory is not overwhelming like some of the other stands. A few elm present in the canopy. Poorer quality in the west.
75	6122 - Black Spruce	Sawtimber Well	14.2	95	81-110	Predominantly black spruce with cedar and balsam fir intermixed. Mixture of poles and logs. Decent quality black spruce. Some areas thick with alder and some areas have heavy fir subcanopy. Stand is wet/mucky and harvesting would be difficult. Must cross creek to access it.
76	6122 - Black Spruce	Poletimber Well	21.7	94	81-110	Large diameter stumps throughout stand. Spruce diameter seem to get smaller in the south. Stand is variable, pockets of good looking trees in saw log class and then pockets of smaller spruce. Some deeryard cutting was done in stand in 1965.
78	6122 - Black Spruce	Sawtimber Well	2.4	95	81-110	Predominantly black spruce with cedar and balsam fir intermixed. Mixture of poles and logs. Decent quality black spruce. Some areas thick with alder and some areas have heavy fir subcanopy. Stand is wet/mucky and harvesting would be difficult. Must cross creek to access it.
80	4112 - Maple, Beech, Cherry Association	Poletimber Well	6.4	73	81-110	Steep hillsides with northern hardwood poletimber adjacent to Hawk Lake. Unique aesthetics, with hillside and erosion concerns.
81	4133 - Aspen, Mixed Pine	Sapling Well	4.0	18	Immature	Pockets of aspen and red pine regeneration, with some open brushy areas.
82	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	41.3	89	51-80	Sugar maple regen can be found under the 40 year old aspen clones and in the aspen pockets that were removed creating large regen gaps. Very little found throughout the standard selection cut areas. Some recent porcupine damage. Pockets with little residual filling in with rubus.
83	4130 - Aspen	Sapling Well	20.0	17	Immature	20 -30' tall. A few big tooth aspen present as well.
84	4110 - Sugar Maple Association	Poletimber Well	25.8	79	81-110	A recently treated hardwood stand. Some browse on preferred regeneration.
85	42110 - Planted Red Pine	Sawtimber Well	30.0	61	171-200	Misc hdwds can be found in the canopy. Variable understory but fairly light over all. A few scattered snags but stand looks healthy.
88	4110 - Sugar Maple Association	Sawtimber Well	41.2	89	111-140	Minimal understory. Higher amount of single stem trees in this stand. BA variable but high enough to warrant a prescription on average.
89	42110 - Planted Red Pine	Sawtimber Well	67.6	54	141-170	Red pine plantation. Current BA avg is 141 sq/ft. A few pockets where the understory is not dog hair thick. Some nice stems in northern portion. A few open pockets with solid M3. Porcupine damage in eastern portions.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
90	42110 - Planted Red Pine	Poletimber Well	23.9	54	111-140	Very close to a R9. Porcupine damage and poor form throughout mixed with several nice red pine stems. Variable stand - red pine BA ranged from 60 - 170.
91	4130 - Aspen	Sapling Well	31.9	15	Immature	Regeneration around 20' tall. Aspen and mixed hardwoods
92	6122 - Black Spruce	Poletimber Well	2.5	93	81-110	Fairly open understory. A few red maple and birch present.
93	4130 - Aspen	Sapling Well	13.7	18	Immature	25-35' tall. A merchantable stick can be found here and there.
94	4110 - Sugar Maple Association	Poletimber Well	17.2	85	81-110	Several nice stems of maple. Several stump sprout origin maple and basswood clumps. A few yellow birch present in canopy.
95	4130 - Aspen	Sapling Well	11.8	18	Immature	20 -30' tall. Monitor health of aspen.
96	4110 - Sugar Maple Association	Poletimber Well	19.6	81	81-110	Pockets of ironwood. Quality and stocking is variable. Maple regeneration is doing fair where present. Many clumps and poor form.
97	42110 - Planted Red Pine	Sawtimber Well	33.8	56	171-200	Variable stand. Avg BA 172. Could be entered for another thinning.
98	4130 - Aspen	Sapling Well	5.1	18	Immature	Opens up and has a hardwood component in the north. South majority is quaking aspen.
99	4110 - Sugar Maple Association	Poletimber Well	19.8	89	81-110	Many double maples. Some yellow birch located in south. Walking trail meanders along the entire west line of stand. Higher density of pole sized trees in south.
104	4110 - Sugar Maple Association	Sapling Well	5.2	15	Immature	Must have been cut during red pine operations in 2002. Sugar maple is regenerating well.
105	42110 - Planted Red Pine	Poletimber Well	46.7	55	141-170	Eastern edge mortality a result of Rx burn operations. Variable stand red pine BA ranges from 60 - 210-sq/ft with an average 157. Areas of hardwood competition impacting red pine growth.
108	4130 - Aspen	Sapling Well	51.1	26	Immature	Many quaking stems falling apart. The aspen stems are nursing along maple regen nicely. A few larger diameter hardwoods can be found in stand
110	4130 - Aspen	Sapling Well	59.2	7	Immature	Red pine plantation conversion. Regeneration around 10' tall. A few remnant red pine. Pockets of open areas with raspberry and blackberry. Retention for sale found in north.
112	4130 - Aspen	Sapling Well	37.8	18	Immature	A regenerating aspen stand. Quality and stocking varies.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
114	4130 - Aspen	Poletimber Well	2.3	44	Unspecified	Pocket of aspen that was established in 1973.
115	4130 - Aspen	Sapling Well	0.9	26	Immature	30' tall.
116	4130 - Aspen	Sapling Well	3.3	26	Immature	A regenerating aspen stand. Many of the big tooth can now be considered merchantable.
117	4130 - Aspen	Sapling Well	13.4	26	Immature	Borderline A6/A3.
118	4199 - Other Mixed Upland Deciduous	Sapling Poor	3.4	5	Immature	Looks like other stands. This stand has a little more jack pine. Stump sprout maple with aspen pockets. A few pole sized black cherry. Lots of areas still open with black berry.
119	4130 - Aspen	Sapling Well	8.7	7	Immature	Old landing on eastern edge. Looks like pockets of advanced regeneration were left during treatment. A couple open pockets also present.
122	42110 - Planted Red Pine	Poletimber Well	1.9	49	141-170	Porcupine damage evident. This stand has never been entered for treatment.
123	4130 - Aspen	Sapling Well	5.7	18	Immature	Variable regen, patchy in a few spots. Looks like a few stems of advanced regen where left during treatment. Pockets of red pine have established in southern portion of stand.
124	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	4.4	49	141-170	A few nice wildlife snags in stand. Saw an elm in canopy too. A variable red pine stand influenced by hardwood competition.
125	4111 - S.Maple, Hard Mast Association	Poletimber Well	5.0	81	81-110	Looks like a failed portion of the plantation. Some remnant red pine scattered throughout. Heavy scale on beech. Fairly open understory.
126	42110 - Planted Red Pine	Poletimber Well	14.1	49	141-170	Well established maple understory. Some rolling terrain with a depression in stand.
127	4130 - Aspen	Sapling Well	25.5	7	Immature	Looks pretty good. See how it looks in 20 years. Noticed several small bird nest throughout the canopy.
128	6124 - Lowland Spruce- Fir	Poletimber Well	39.8	94	51-80	Thick pockets of fir and spruce over 100BA with the wet areas consisting more of moderately cedar and alder. A pocket of very thick balsam fir in north end. Balsam fir looked ok.
129	4112 - Maple, Beech, Cherry Association	Poletimber Well	11.9	77	81-110	Pockets of large diameter aspen. Plenty of pole size trees with Larger open grown in quality hardwoods mixed throughout. Fairly open understory. A pocket of sapling regen in southern portion consisting primarily of red maple and iron wood. Clumpy. MCCCT trail runs through stand. Stick nest found in stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
130	4110 - Sugar Maple Association	Poletimber Well	3.4	88	111-140	Fairly open understory. Elm also present in the canopy
131	4110 - Sugar Maple Association	Poletimber Well	2.7	88	81-110	Many trees originating from stump sprouts. Pocket was left from previous harvest.
132	4110 - Sugar Maple Association	Sawtimber Well	6.6	84	81-110	Small stand of hardwoods left from aspen treatment. Walking trail found in stand
133	4110 - Sugar Maple Association	Poletimber Well	2.3	80	111-140	Many trees from stump sprout origin. A few very large diameter trees 16"+dbh also present.
134	4110 - Sugar Maple Association	Poletimber Well	4.5	84	111-140	A couple pockets in understory with quality sugar maple regeneration. Variable quality.
135	4110 - Sugar Maple Association	Poletimber Well	3.3	75	81-110	Small pocket of hardwoods dominated by sugar maple and basswood. Elm, birch, aspen, red maple, and beech also present.
136	4110 - Sugar Maple Association	Poletimber Well	7.1	86	81-110	Walking trail in stand. Several trees with large diameter showing open grown qualities. Ba from 50sq/ft - 110sq/ft.
138	4110 - Sugar Maple Association	Sawtimber Well	6.7	89	81-110	Fairly open understory. Lots of double and clumpy maples. Variable quality and densities.
139	4130 - Aspen	Sapling Well	18.3	29	Immature	Very close to being an A6. A few open pockets found throughout stand. Paper birch also present in canopy.
140	4110 - Sugar Maple Association	Sawtimber Medium	5.2	88	51-80	OPIC - FMD: SMALL STANDS OF HARDWOOD LEFT DURING ASPEN HARVEST.
142	4110 - Sugar Maple Association	Sawtimber Well	2.1	81	81-110	Large clumpy open grown trees.
143	4130 - Aspen	Sapling Well	4.8	17	Immature	A regenerating aspen and hardwood stand. Similar to stand in south. Rolling topo.
144	4130 - Aspen	Sapling Well	49.0	26	Immature	A few nice clumps of serviceberry. Plenty of trees have a stick or two in them but majority still seems to be sapling size.
145	4110 - Sugar Maple Association	Sawtimber Well	16.0	91	141-170	Very nice stand of quality hardwoods. Minimal understory. Several x-log trees. Nice potential in the pole sized maple as well.
147	4110 - Sugar Maple Association	Poletimber Well	2.5	84	81-110	Small pocket of northern hardwoods. Clumpy in origin.
149	4130 - Aspen	Sapling Well	2.4	7	Immature	regenerating aspen stand



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
152	6124 - Lowland Spruce- Fir	Poletimber Poor	8.2	95	1-50	Originally part of stand 62, but has a much heavier component of alder, and lower canopy coverage. Stand is also wetter and may flood occasionally. Stand is quite variable overall. Could be classified as two-aged because of the fir/spruce saplings in the subcanopy. May have had some habitat cutting occur in the past.
153	6124 - Lowland Spruce- Fir	Poletimber Poor	8.0	95	1-50	Originally part of stand 62, but has a much heavier component of alder, and lower canopy coverage. Stand is also wetter and may flood occasionally. Stand is quite variable overall. Could be classified as two-aged because of the fir/spruce saplings in the subcanopy. May have had some habitat cutting occur in the past.
154	6122 - Black Spruce	Poletimber Medium	1.1	61	51-80	Open grown pockets mixed w/ dense smaller diameter pockets.
162	6122 - Black Spruce	Sawtimber Well	20.0	95	81-110	Predominantly black spruce with cedar and balsam fir intermixed. Mixture of poles and logs. Decent quality black spruce. Some areas thick with alder and some areas have heavy fir subcanopy. Stand is wet/mucky and harvesting would be difficult.



Stand	Cover Type	Acres	Managed Site	General Comments:
9	122 - Road/Parking Lot	7.3	No	Mancelona Rd and ROW.
11	3303 - Mixed Low Density Trees	6.2	No	OPIC - FMD: Upland brush with scattered red maple of limby form.
15	3104 - Degraded	1.1	No	Well Site. LINN OPERATING. STATE MANCELONA D4-7
30	122 - Road/Parking Lot	7.6	No	OPIC - FMD: Stand harvested in 2012 as part of Lost Kite Aspen-Jack. POOR QUALITY OFF SITE 2006: Jack pine of poor quality. Final harvest, leave in upland brush. 50% mortality with dense hard maple and black cherry understory.
38	500 - Water	3.6	No	HAWK LAKE
42	330 - Low-Density Trees	1.3	No	MCCCT Trail runs through stand. Scattered pole/sapling size aspen. A couple barn in stand. Southern portion open with scattered pine.
46	310 - Herbaceous Openland	34.2		Planted with PRT on 04/17/2015 @ 969/ac. Burned on 06/10/2014 and trenched 10/15/2014. Also 1613 2-0 red oak were planted in 2 1 acre patches on 05/10/2015. Release herbicide spray on 9/16/2016.
47	310 - Herbaceous Openland	0.3	No	
48	310 - Herbaceous Openland	75.1		Stand herbicided in 2013, planted 2015, oak was planted in 2015, and a release spraying was done in 2016.
49	122 - Road/Parking Lot	4.9	No	Mancelona Road and ROW
52	6220 - Alder/willow	12.5	No	Thick alder with scattered conifers and hdwds.
53	6229 - Mixed lowland shrub	35.6	No	Manistee rive corridor. Alder and wetland shrubs along the perimeter.
55	629 - Mixed non-forested wetland	17.5	No	Brush along perimeter of stand. Used year round by ducks. Dead cedar throughout stand.
58	6220 - Alder/willow	22.5	No	A wet stand. Scattered dead fir, and fir with damage to leaders. Higher stocking in the south. Majority of trees in the 3-5" DBH range
59	330 - Low-Density Trees	10.0	No	Upland brush/ low density tree. Filling as a result of adjacent seed sources and treatments. Pockets of variable species throughout.
63	122 - Road/Parking Lot	2.7	No	OPIC - FMD: Stand harvested in 2012 as part of Lost Kite Aspen-Jack. POOR QUALITY OFF SITE 2006: Jack pine of poor quality. Final harvest, leave in upland brush. 50% mortality with dense hard maple and black cherry understory.



Stand	Cover Type	Acres	Managed Site	General Comments:
64	3204 - Mast Producing Shrub	19.8	No	A small dip of lowland in north center part of stand. Stand wraps around a golf course. Some browse evident. Thicker red maple and aspen regeneration in NW.
70	629 - Mixed non-forested wetland	62.5	No	Head waters. Scattered islands of pole size Q-type throughout. Very wet. Standing Dead throughout. Beaver activity.
73	3104 - Degraded	1.3	No	Well site LINN OPERATING STATE MANCELONA B 4-8
74	6220 - Alder/willow	3.7	No	Wet area dominated by alder and shrubs.
77	3204 - Mast Producing Shrub	5.6	No	Relic stumps present. Excellent wildlife mast stand. Small pocket of aspen in north. Open stand, easy walking. Looks like there may be a high amount of bracken fern present in stand.
79	310 - Herbaceous Openland	1.0	No	Old landing?
86	3204 - Mast Producing Shrub	4.7	No	A couple larger sized birch and red maple also present. Some of the cherry is starting to fall apart. A couple dandy clumps of serviceberry. A decent looking u-type.
87	122 - Road/Parking Lot	1.3	No	Rd and ROW
100	500 - Water	3.8	No	Small portion of Duck Lake in northeast corner of compartment. Old notes indicate the natural river coordinator recommends a 100 foot vegetative buffer restricting equipment during future timber harvests in the adjacent stand.
101	320 - Upland Shrub	8.3	No	Small, upland brush strip on north side of red pine plantation. May not be within state ownership.
102	310 - Herbaceous Openland	0.5	No	
103	122 - Road/Parking Lot	1.2	No	OPIC - FMD: Northern hardwood poletimber of desired density. No treatment needed now.
106	122 - Road/Parking Lot	3.5	No	OPIC - FMD: Red pine thinned in 2000. Stand density is currently optimum. Discussion at pre-review included proposing a final harvest on this eighty acres in the next ten year treatment, and re-plant with red pine. Goal: To eliminate the strip pattern.
107	122 - Road/Parking Lot	3.8	No	County road and ROW
111	310 - Herbaceous Openland	2.7	No	Blackberry filling in. Sugar maple can be found along the perimeter. Historic encroachment?



Stand	Cover Type	Acres	Managed Site	General Comments:
120	3301 - Low Density Deciduous Tree	3.3	No	Upland brush with old white pine stumps on south side of red pine plantation.
121	3204 - Mast Producing Shrub	1.4	No	Possible encroachment issue. Need to establish boundary lines.
137	330 - Low-Density Trees	0.7	No	Trail road originating from pvt property runs through stand.
141	310 - Herbaceous Openland	1.6	No	Well site - 2 wells and small shed. Jordan Development Company State Mancelona 2-12 HD Permit# 57450, MPSC# 11997 Emergency Contact: 231-935-4220
150	6239 - Mixed Emergent Wetland	3.2	No	Less than 20sq/ft of timber. A wet stand.
151	3104 - Degraded	1.2	No	Well Site Jordan Development CO State Mancelona 15-13 HD-2 Large pole building on site.
155	3204 - Mast Producing Shrub	2.2	No	OPIC - FMD: Small, upland brush strip on south side of red pine plantation.
158	629 - Mixed non-forested wetland	8.8	No	Standing dead timber and open water in middle surrounded by sedge and alder.
400	3104 - Degraded	1.2	No	Well Site. LINN OPERATING, STATE MANCELONA I A 3-15
401	3104 - Degraded	0.9	No	LINN OPERATING, STATE MANCELONA I A 1-15. Small building and pump jack on site.
402	3104 - Degraded	1.0	No	Well Site. LINN OPERATING, STATE MANCELONA C2-15
403	3104 - Degraded	0.7	No	Well Site. LINN OPERATING, STATE MANCELONA D1-15 Pump jack and small building on site
404	3104 - Degraded	1.2	No	LINN OPERATING, STATE MANCELONA A 1-16. Pump jack and small building
405	3104 - Degraded	1.2	No	LINN OPERATING STATE MANCELONA I B 1-16. Pump jack and small building on site.
406	3104 - Degraded	1.3	No	Well Site. LINN OPERATING INC. STATE MANCELONA B2-16. Pump jack and a small building.
407	3104 - Degraded	0.7	No	LINN OPERATING STATE MANCELONA I D1-16 pump jack and building



Stand	Cover Type	Acres	Managed Site	General Comments:
408	3104 - Degraded	1.0	No	Well Site. LINN OPERATING, STATE MANCELONA ID 4-17 pump jack and small building on site
409	3104 - Degraded	0.9	No	Well SITE LINN OPERATING STATE MANCELONA I D2-17....Pump jack and small building on site.
410	3104 - Degraded	0.6	No	Well Site LINN OPERATING STATE MANCELONA A 4-8 pump jack and small building on site.
411	3104 - Degraded	0.8	No	Well Site LINN OPERATING STATE MANCELONA B3-8 seedling along perimeter, pump jack and building on site
412	3104 - Degraded	1.1	No	WELL SITE LINN OPERATING - STATE MANCELONA I C 4-8 Pump jack and a small building
413	3104 - Degraded	1.5	No	Well Site. LINN OPERATING, STATE MANCELONA 1D 2-8. pump jack, small building
414	3104 - Degraded	1.1	No	Well Site, LINN OPERATING, STATE MANCELONA D1-8. Pump jack and small building on site.
416	3104 - Degraded	1.1	No	WELL SITE. LINN OPERATING STATE MANCELONA I B 4-7. Pump jack and small building
417	3104 - Degraded	1.4	No	Well Site. LINN OPERATING. STATE MANCELONA I C 3-7
418	3104 - Degraded	1.3	No	WELL SITE. LINN OPERATING. STATE MANCELONA I A 3-7. Pump jack and a small building
419	3104 - Degraded	0.9	No	Well Site. LINN ENERGY. STATE MANCELONA B2-7. Pump jack and building on site.
420	3104 - Degraded	1.2	No	WELL SITE. LINN OPERATING I B 1-7
422	3104 - Degraded	1.2	No	Well Site LINN OPERATING STATE MANCELONA I D-17, pump jack and small building on site.
423	3104 - Degraded	1.4	No	Well Site LINN OPERATING, STATE MANCELONA I C1-18 pump jack and building



Stand	Cover Type	Acres	Managed Site	General Comments:
424	3104 - Degraded	1.2	No	Well Site LINN OPERATING STATE MANCELONA 1 D1-6 pump jack and small building on site
425	3104 - Degraded	1.3	No	Well Site. LINN OPERATING STATE MANCELONA D2-6
426	3104 - Degraded	0.9	No	GAS WELL. LINN OPERATING. STATE MANCELONA I C 3-6. Pump jack and small building.
427	3104 - Degraded	0.9	No	Well Site. LINN OPERATING INC. STATE MANCELONA I B 4-6
428	3104 - Degraded	1.2	No	WELL SITE. LIIN OPERATING INC, STATE MANCELONA I A 3-6
429	3104 - Degraded	1.1	No	Well Site. LINN OPERATING STATE MANCELONA I B 2-6
430	3104 - Degraded	1.1	No	Well Site. LINN OPERATING STATE MANCELONA I B 1-6
436	3204 - Mast Producing Shrub	5.1	No	Pocket with upland brush type. Scattered non-merchantable black cherry, r.maple. Aspen clone on the north side