



# Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 52050

Entry Year 2017

Acreage: 1,618

County Antrim

Management Area: Jordan Valley

---

**Revision Date:** 2015-05-11

**Stand Examiner:** Lucas Merrick

**Legal Description:**

T31N, R6W, Sections 24, 25, & 36

**Identified Planning Goals:**

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

**Soil and topography:**

70% Kalkaska-Montcalm complex, 25% Kalkaska Sand and 5% Roscommon Mucky Sand. Nearly level to very steep slopes, 0 - 40%.

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

West and north portions of the compartment border on private. There are some private holdings within the compartment. The compartment is part of a large tract of state land in the Jordan River watershed.

**Unique Natural Features:**

The compartment is part of the Jordan River Valley ecosystem.

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

None known at this time.

**Special Management Designations or Considerations:**

This compartment is part of a HCVA since it is part of the Jordan Valley Management Plan.

**Watershed and Fisheries Considerations:**

This compartment is in the Jordan River watershed. Portions of a Jordan River tributary and adjacent lowland are located within the proposed treatment area. Though none of the treatments proposed appear as though they will impact this stream directly, the appropriate BMP's and Natural Rivers buffers should be followed.

**Wildlife Habitat Considerations:**

This compartment is primarily hardwoods. Any oak in the stands prescribed will be maintained where present to provide hard mast for deer, turkey, and grouse.

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

Surface sediments consist of coarse-textured glacial till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are the Devonian Ellsworth and Antrim Shale. These shales are quarried for cement products elsewhere in the State. A gravel pit is located two miles to the west and potential is good. Oil and gas potential in the area is primarily for the Antrim Shale gas play, but the compartment is in the Jordan Valley Management Area and development is not allowed. All of the state land in the compartment is classified as non-leasable, yet nearly all of Section 24 and the southern half of Section 25 are under lease and are included in unitized areas. Section 36 is offset by producing wells to the west and is being drained of hydrocarbons.

**Vehicle Access:**

Very little of Section 24 and the north half of Section 25 is more than 3/8 of a mile from a drivable road. The south half of Section 25 and all of Section 36 have poor to moderate road access which is gated.

**Survey Needs:**

None noted at this time.

**Recreational Facilities and Opportunities:**

No facilities. Hunting, mushrooming and snowmobiling are pursued in the compartment. Note: The Jordan Valley Snowmobile Trail is located east of this compartment on the Jordan River Road which does affect access into sections 25 & 36 of this compartment.

**Fire Protection:**

**Additional Compartment Information:**

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

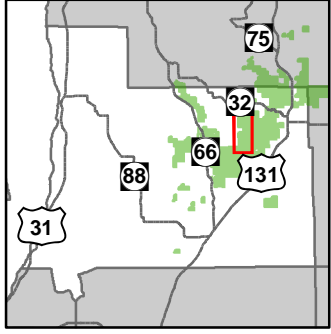
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

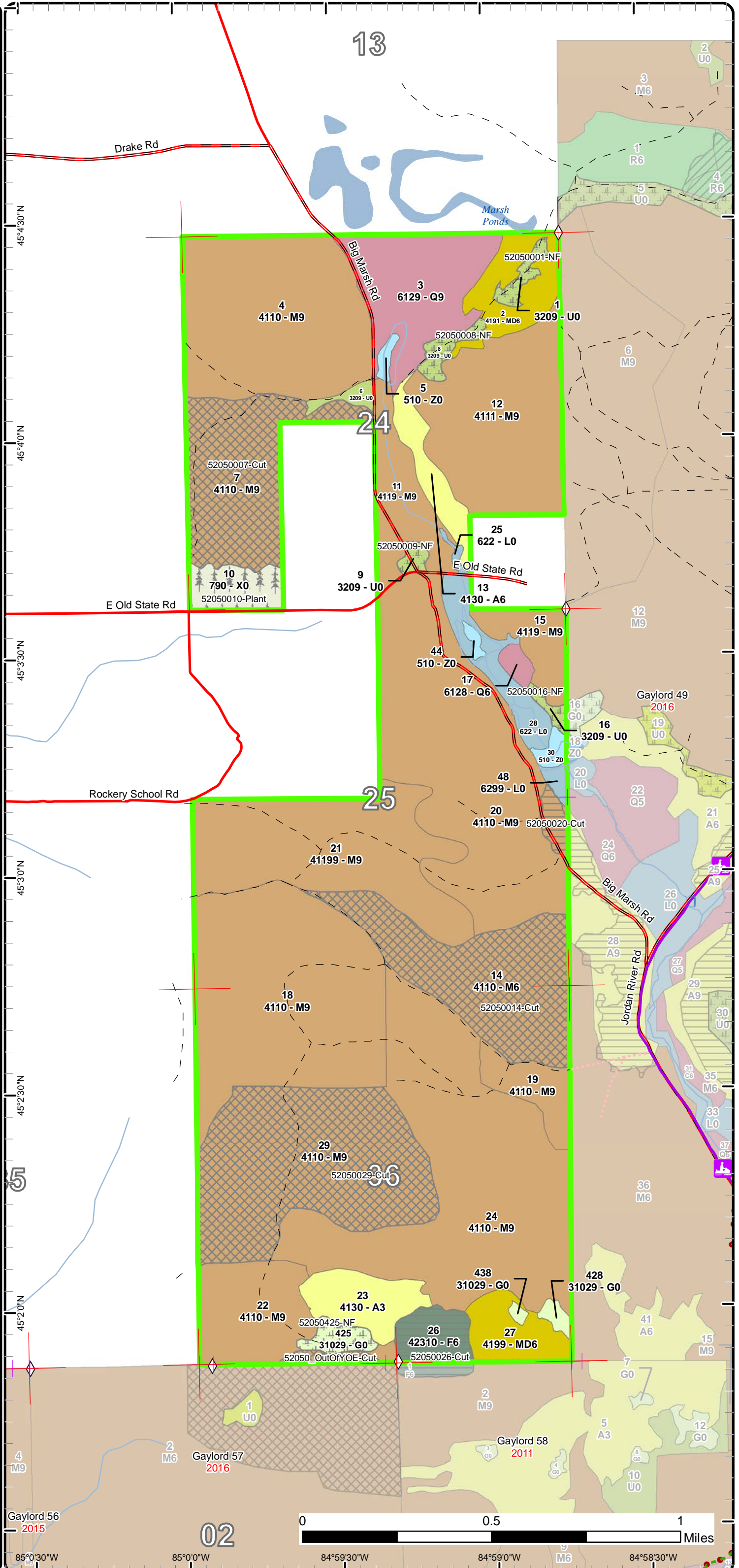
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

Compartment: 50  
 T31N,R06W, Sec. 24, 25, 36  
 County: Antrim  
 Unit: Gaylord  
 Mgmt Area: Jordan Valley  
 YOY: 2017  
 Acres: 1618 GIS Calculated  
 Examiner: Lucas Merrick  
 Map Revised: 3/24/2016  
 Map Phase: Post-Review



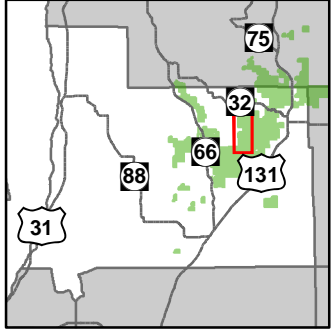
- Miris Corners
  - + Remonumented Section Corners
  - ◇ Field Grade GPS Corners
  - Snowmobile Trails
  - - - Designated Hiking Trails
  - Designated Equestrian Trails
  - Designated Snowmobile Trails
  - Culverts
  - County Paved Roads
  - County Gravel Roads
  - Poor Dirt Roads
  - - - Closed Roads
  - Rivers
  - Compartment Boundary
- Treatments**
- Selection (Group, Single Tree)
  - Clearcut (w/Reserves)
  - Planting (tree species)
  - Other Treatment - See Comments
- Forest Covertypes**
- 411 - Northern Hardwood
  - 413 - Aspen
  - 419 - Mixed Upland Deciduous
  - 423 - Other Upland Conifers
  - 612 - Lowland Coniferous Forest
- Non-Forest Covertypes**
- 310 - Herbaceous Openland
  - 320 - Upland Shrub
  - 500 - Water
  - 622 - Lowland Shrub
  - 790 - Other Bare/Sparsely Vegetated
  - Lakes



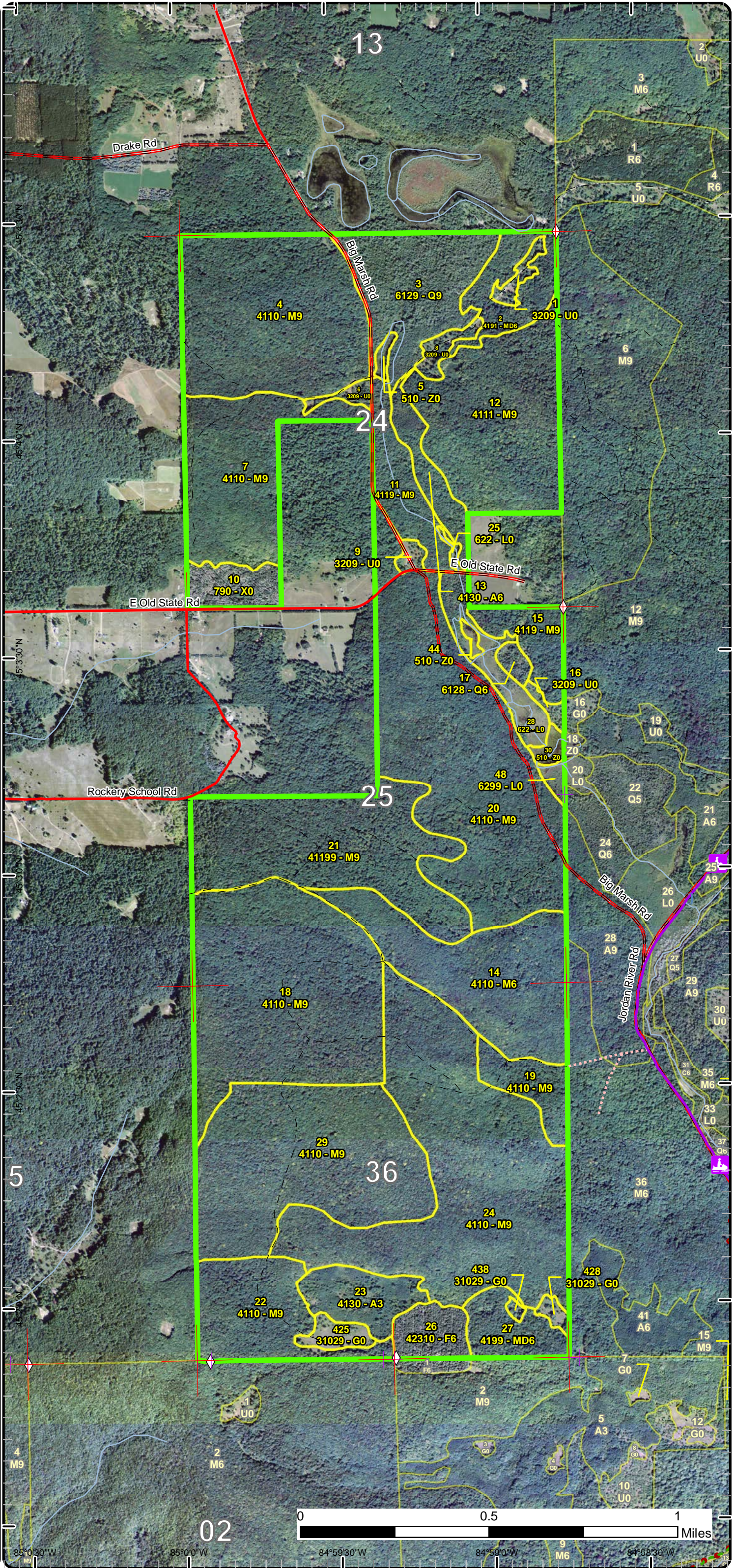


# Stand Boundary Map

Compartment: 50  
 T31N,R06W, Sec. 24, 25, 36  
 County: Antrim  
 Unit: Gaylord  
 Mgmt Area: Jordan Valley  
 YOE: 2017  
 Acres: 1618 GIS Calculated  
 Examiner: Lucas Merrick  
 Map Revised: 3/24/2016  
 Map Phase: Post-Review



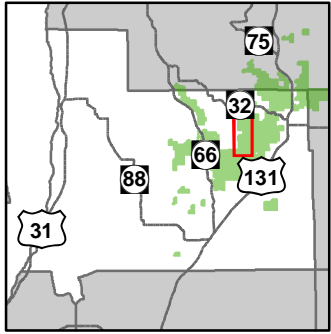
- Miris Corners
- Remonumented Section Corners
- Field Grade GPS Corners
- Snowmobile Trails
- Designated Hiking Trails
- Designated Equestrian Trails
- Designated Snowmobile Trails
- Culverts
- County Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Closed Roads
- Rivers
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 500 - Water
- 622 - Lowland Shrub
- 790 - Other Bare/Sparsely Vegetated



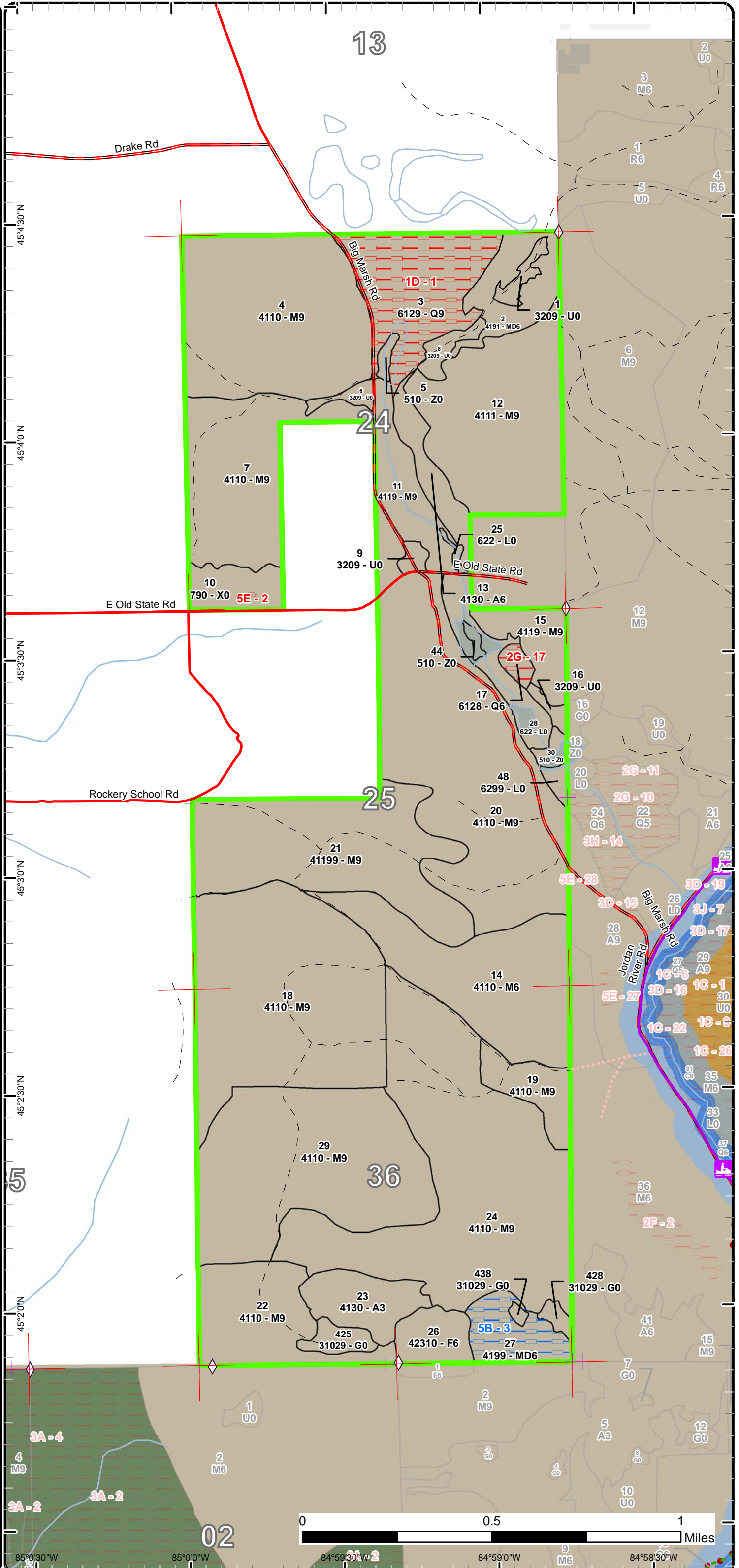


# Special Conservation Areas & Site Conditions Map

Compartment: 50  
 T31N,R06W, Sec. 24, 25, 36  
 County: Antrim  
 Unit: Gaylord  
 Mgmt Area: Jordan Valley  
 YOE: 2017  
 Acres: 1618 GIS Calculated  
 Examiner: Lucas Merrick  
 Map Revised: 3/24/2016  
 Map Phase: Post-Review



- Miris Corners
- + Remonumented Section Corners
- ◇ Field Grade GPS Corners
- Snowmobile Trails
- Designated Hiking Trails
- Designated Equestrian Trails
- Designated Snowmobile Trails
- Culverts
- County Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Closed Roads
- Rivers
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes
- 1D: Interest Group / Neighbor
- 2G: Too wet (sensitive soils, does not include access issues)
- 5E: Long-Term Retention
- Stand Boundaries
- Special Conservation Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Dedicated Management Areas
- Cold Water Streams
- Cold Water Lakes
- Non-Dedicated Natural Areas and National Natural Landmarks
- Habitat Corridor





Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	27	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	45
Bare/Sparsely Vegetated	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Herbaceous Openland	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Lowland Conifers	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	64	68
Lowland Shrub	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	28	51
Northern Hardwood	0	0	0	0	0	0	0	518	208	0	0	0	0	0	0	0	0	620	1346
Upland Shrub	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Upland Spruce/Fir	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	17
Water	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
<b>Total</b>	<b>87</b>	<b>0</b>	<b>27</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>518</b>	<b>231</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>712</b>	<b>1614</b>



## Report 2 – Treatment Summary

Gaylord Mgt. Unit

Compartment 50

Year of Entry:

Acres of Harvest

Total Compartment Acres: 1,618

Commercial Harvest - 343  
 Harvests with Site Condition - 0  
 Next Step Harvest - 17  
 Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Northern Hardwood	6	319	0	0	0	0	0	0	0	325
Upland Spruce/Fir	17	0	0	0	0	0	0	0	0	17
<b>Total</b>	<b>23</b>	<b>319</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>343</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	343	0	18	0	0	0	0	26	0	387
Next Step	17	36	36	0	17	17	397	0	0	519
<b>Total</b>	<b>360</b>	<b>36</b>	<b>54</b>	<b>0</b>	<b>17</b>	<b>17</b>	<b>397</b>	<b>0</b>	<b>26</b>	<b>906</b>



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
24	52050_OutOfY OE-Cut	4.9	4110 - Sugar Maple Association	Sawtimber Well	78	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary

**Habitat Cut: No**

**Site Condition:**

Prescription Mark trees to remove aiming for a residual BA of 80. Establish regen gaps where appropriate. Follow marking guidelines. Note: This stand will be combined with a selection cut in Comp. 57, stand 2 in order to provide access from the north & the gate along Jordan River Rd. Note: Avoid logging during snowmobile season and follow guidelines for signage and protection of trail.

Next Step  
Treatments:

Acceptable Northern hardwood species including sugar maple and basswood.  
Regen:

Other Expected regen should be a mix of northern hardwoods species, dominated by sugar maple and basswood. Protect any stick nests if found during marking and follow guidelines. Old next step comments: regen survey

Proposed Start Date: 10/01/2015

1	52050001-NF	5.1	3209 - Upland Shrub (OI)	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	320 - Upland Shrub		Draft Field Boundary
---	-------------	-----	--------------------------	------------	--	--------------	--------------	-----------------	--------------------	--	----------------------

**Habitat Cut: No**

**Site Condition:**

Prescription Brush, mow, plant, burn and/or herbicide to maintain opening. Planting of hard and soft mast.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 10/01/2016

7	52050007-Cut	79.1	4110 - Sugar Maple Association	Sawtimber Well	85	141-170	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Uneven-Aged	Draft Field Boundary
---	--------------	------	--------------------------------	----------------	----	---------	---------	-----------------------	---------------------------------	-------------	----------------------

**Habitat Cut: No**

**Site Condition:**

Prescription Select mark to reduce overall stand density to 80 sq.ft. BA/ac. Favor under represented species when marking. Don't mark on steep slopes.  
Specs: Establish regeneration gaps where appropriate. Protect any stick nests if found during marking according to guidelines.

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

Acceptable Sugar maple and its associated northern hardwood species.  
Regen:

Other Northern hardwood stand with low species diversity. Stand is developing into small diameter saw logs. Stand density ranges from 120 - 180 sq.ft BA/ac. with an overall average of 141 sq.ft BA/ac. Old next step comments:

Proposed Start Date: 10/01/2016

8	52050008-NF	6.7	3209 - Upland Shrub (OI)	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	320 - Upland Shrub		Draft Field Boundary
---	-------------	-----	--------------------------	------------	--	--------------	--------------	-----------------	--------------------	--	----------------------

**Habitat Cut: No**

**Site Condition:**

Prescription Brush, mow, plant, burn and/or herbicide to maintain opening. Planting of hard and soft mast.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 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
9	52050009-NF	3.4	3209 - Upland Shrub (OI)	Nonstocked		Unspecified	NonForestMgt	Other - Specify	320 - Upland Shrub		Draft Field Boundary

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

Prescription Brush, mow, plant, burn and/or herbicide to maintain opening. Planting of hard and soft mast.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/01/2016

10	52050010-Plant	18.4	790 - Other Bare/Sparsely Vegetated	Nonstocked	0	Unspecified	Planting	Initial Plant	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
----	----------------	------	-------------------------------------	------------	---	-------------	----------	---------------	-------------------------	-----------	----------------------

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

Prescription Stand has been harvested and the contract will be closed soon once last of wood is hauled. The small hardwood/aspens patch in the middle of

Specs: the stand should be left as retention. Wildlife will also plant trees to provide hard and soft mast concentrated around the spring.

Next Step

Treatments: SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Acceptable Regeneration should be a well stocked planted red pine stand.

Regen:

Other A FTP has been submitted to TMS for planting. Old next step comments:

Comment:

Proposed Start Date: 10/01/2013

14	52050014-Cut	92.5	4110 - Sugar Maple Association	Poletimber Well	78	141-170	Harvest	Single Tree Selection	411 - Northern Hardwood	Even-Aged	Draft Field Boundary
----	--------------	------	--------------------------------	-----------------	----	---------	---------	-----------------------	-------------------------	-----------	----------------------

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

Prescription Selectively mark stand with a crop tree release. Create regeneration holes where appropriate. Promote diversity of species within stand by

Specs: favoring minor component species. Mark accessible draws and ridge tops and leave steep slopes unmarked. Targeted residual density is 80 sq.ft. BA/ac.

Next Step

Treatments:

Acceptable Northern hardwood species as noted in the canopy.

Regen:

Other Access stand from Jordan Valley Road gate. Protect any stick nests if found during marking according to guidelines. Consider access is off an

Comment: active snowmobile trail which might cause seasonal restrictions. Follow protocol for signage and protection of trail. Old next step comments:

Proposed Start Date: 10/01/2016

16	52050016-NF	3.2	3209 - Upland Shrub (OI)	Nonstocked		Unspecified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary
----	-------------	-----	--------------------------	------------	--	-------------	--------------	-----------------	---------------------------	--	----------------------

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

Prescription Brush, mow, plant, burn and/or herbicide to maintain opening. Planting of hard and soft mast.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 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
-----------------------	----------------	-------	-----------------	--------------	-----------	----------	----------------	------------------	----------------------	---------------	-----------------

20	52050020-Cut	6.1	4110 - Sugar Maple Association	Sawtimber Well	81	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Field Boundary
----	--------------	-----	--------------------------------	----------------	----	--------	---------	-------------------------	-------------	-----------	----------------

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

Prescription Cut all trees 2" and up. Harvest with stand 28 in adjacent compartment 49. Retention in stand 28 will count towards this stand.  
Specs:

Next Step  
Treatments:

Acceptable Regen: Acceptable regeneration is predominantly aspen, maple, and cherry, with a possible component of birch, basswood, ash and fir.

Other Comment: Old next step comments:

Proposed Start Date: 10/01/2015

26	52050026-Cut	17.2	42310 - Planted Spruce	Poletimber Well	55	141-170	Harvest	Clearcut	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary
----	--------------	------	------------------------	-----------------	----	---------	---------	----------	--------------------------	-----------	----------------------

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

Prescription Final harvest white spruce and reduce slash as much as possible. Re-plant with red pine, incorporating hard and/or soft mast shrub species.  
Specs: Combine this stand with the spruce to the south in Compartment 58, stand 1 for the same harvest treatment.

Next Step Harvest, Clearcut; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)  
Treatments:

Acceptable Regen: Red pine

Other Comment: Stand is too remote to have a chip operation with difficult trucking route. Logging will be seasonally limited to avoid snowmobile season which is located on the Jordan River Road. Follow guidelines for trail signage and protection of trail. Old next step comments:

Proposed Start Date: 10/01/2016

29	52050029-Cut	142.8	4110 - Sugar Maple Association	Sawtimber Well	78	141-170	Harvest	Single Tree Selection	411 - Northern Hardwood	Even-Aged	Draft Field Boundary
----	--------------	-------	--------------------------------	----------------	----	---------	---------	-----------------------	-------------------------	-----------	----------------------

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

Prescription Select mark stand with a crop tree release method. Create regeneration gaps where appropriate. Target residual = 80 sq.ft. BA/ac. Utilize contract specifications to ensure slopes are protected with brush and water bars as needed during logging operations. Protect any stick nests if found during marking according to guidelines.  
Specs:

Next Step  
Treatments:

Acceptable Regen: A variety of northern hardwood species including sugar maple.

Other Comment: Northern hardwood stand with an average stand density of 143 sq.ft. BA/ac. Stand would benefit from a selection harvest with the access from the Jordan Valley Road locked gate to the northeast. Winter logging access will be limited due to an active snowmobile trail on the Jordan River Road. Follow all trail specifications with signing and protection of the trail. Old next step comments:

Proposed Start Date: 10/01/2016

425	52050425-NF	7.8	31029 - Grass (OI)	Nonstocked		Unspecified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary
-----	-------------	-----	--------------------	------------	--	-------------	--------------	-----------------	---------------------------	--	----------------------

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

Prescription Brush, mow, plant, burn and/or herbicide to maintain opening. Planting of hard and soft mast.  
Specs:

Next Step  
Treatments:

Acceptable Regen:

Other Comment: Old next step comments:

Proposed Start Date: 10/01/2016

**Total Treatment  
Acreage Proposed: 387.1**



## Report 5 – Site Conditions

Gaylord Mgt. Unit  
Lucas Merrick : Examiner

Compartment: 50  
Year of Entry: 2017

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions				
		With Condition	Not Available		5B	1D	2G	5E
45	45	0	0	Aspen				
18	18	0	1	Bare/Sparsely Vegetated				1
12	12	0	0	Herbaceous Openland				
68	0	0	68	Lowland Conifers		64	4	
27	27	0	0	Lowland Shrub				
51	28	23	0	Mixed Upland Deciduous	23			
1347	1347	0	0	Northern Hardwood				
22	22	0	0	Upland Shrub				
17	17	0	0	Upland Spruce/Fir				
8	8	0	0	Water				
1,618	1,525	23	69	Total Forested Acres	23	64	4	1
	94%	1%	4%	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	1D: Interest Group / Neighbor	64	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Sierra Club nominated this stand to protect it for its unique hemlock nursery bed characteristics. It is a wet stand with larger diameter white pine, abundant hemlock, black spruce, and tamarack. Aesthetic value at entrance to a main gateway road to the Jordan Valley also.							
2	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Small island of hardwood left as long term retention when spruce stand was final harvested.							
3	Available	5B: Maintain for regeneration purposes	23	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Excellent sugar maple understory.							

## Report 5 – Site Conditions

Gaylord Mgt. Unit  
Lucas Merrick : Examiner

Compartment: 50  
Year of Entry: 2017

17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> This small cedar and swamp conifer stand is surrounded by water with streams depositing water with associated wetland types in area. Some marsh and lowland brush.							



Mgt. Unit

Compartment: #Type!

Year of Entry:



## Report 6 – PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

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

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

---

Comments

---



## Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wild Areas that have been nominated or proposed for legal dedication, but for which legal dedication by legislature has not occurred. The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
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	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
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.





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	28.2	55	51-80	This appears to be an old opening that is converting to a white pine/hardwoods mix. Clumpy with lots of cherry. Significant white pine regeneration. Patchy stocking by species and BA.
3	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	64.0	87	51-80	Unique stand with white pine, hemlock and black spruce in the west, and tamarack in the east. Water table is right at the surface with standing water in areas. 10 years ago, Sierra Club requested that this stand be protected from future logging since it is a good hemlock nursery bed with abundant hemlock of all size classes. This wet stand has aesthetic value on a primary access road to the Jordan Valley & provides a diverse conifer component amidst a larger northern hardwood forest complex.
4	4110 - Sugar Maple Association	Sawtimber Well	127.9	84	81-110	Northern hardwood stand that was selectively cut in 2000. Average stand density = 103 sq.ft. BA/ac. currently. Old hardwood marking test plot was located in this stand west of Marsh Rd. A Goshawk was noted in this stand over ten years ago.
7	4110 - Sugar Maple Association	Sawtimber Well	79.1	85	141-170	Northern hardwood stand with low species diversity. Harvest should be limited to sugar maple and basswood. Don't mark on steep slopes. Stand is developing into small diameter saw logs. Stand density ranges from 120 - 180 sq.ft BA/ac. with an overall average of 141 sq.ft BA/ac.
11	4119 - Mixed Northern Hardwoods	Sawtimber Well	29.5	84	81-110	Brian Mastenbrook nominated this stand ten years ago to be set aside for amphibian habitat. The coarse woody debris in this stand can be expected to provide valuable amphibian habitat along the adjacent wetland. Stand still provides a wealth of Coarse Woody Debris. Average stand density is 97.5 sq.ft.BA/ac.
12	4111 - S.Maple, Hard Mast Association	Sawtimber Well	103.6	81	81-110	Northern hardwood stand of which most of it was selectively logged in 2008, and the southern strip in 1999. Stand is a small log stand with more poles in the west. Average stand density is 95 sq.ft. BA/ac.
13	4130 - Aspen	Poletimber Well	18.3	39	51-80	Significant balsam fir component at the south end. Young 38 year old aspen stand, but has developed into a pole stand. Could be cut if needed for ACD, but otherwise Barta recommended holding it.
14	4110 - Sugar Maple Association	Poletimber Well	92.5	78	141-170	Northern hardwood pole stand with some steep slopes that are not workable. Stand would benefit from a thinning with an average stand density of 146 sq.ft. BA/ac. The east two thirds of the stand has steep hills so the best approach would be to mark draws and ridge tops.
15	4119 - Mixed Northern Hardwoods	Sawtimber Well	21.9	79	81-110	Small hardwood stand that has access issues due to Jordan River drainage and water to the west, private land to the north, and some hilly terrain with a creek at northeast corner. Current stand density is 105 sq.ft. BA /ac. Variety of hardwood species that range from 8"dbh. - 12"dbh.



Stand	Gaylord Mgt. Unit		Report 8 – Forested Stands			Compartment: 50 Year of Entry: 2017
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
17	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	4.4	94	81-110	Small island of cedar and swamp conifer species surrounded by water. Streams from north and east deposit in this area. Patches of marsh and lowland brush in stand. stand density = 103 sq.ft.BA/ac.
18	4110 - Sugar Maple Association	Sawtimber Well	164.2	80	81-110	This stand was selectively logged in 2002, and currently has an average stand density of 96 sq.ft.BA/ac.
19	4110 - Sugar Maple Association	Sawtimber Well	20.9	81	81-110	Select cut completed on this stand leaving average stand density at 110 sq.ft. BA/ac. Very steep hills in this area made logging challenging in past. Small equipment with cable skidding utilized. Natural regeneration is adequate.
20	4110 - Sugar Maple Association	Sawtimber Well	187.6	81	81-110	This stand was selectively logged in 2014 (Out of YOE) with the contract currently open for sale closure details. The residual stand density is currently 92 sq.ft. BA/ac. due to leaving some steep hills with seeps & creek protected in stand.
21	41199 - Northern Hardwood (OI)	Sawtimber Well	115.8	179	51-80	OPIC - FMD: COMMERCIAL SELECT LOT HARVEST 1979. FDF POTENTIAL 2004: Has some inclusions of pole timber. 2010: Selection harvested in 09-10.
22	4110 - Sugar Maple Association	Sawtimber Well	55.0	78	81-110	Northern hardwood stand was selectively logged in 2001. Average stand density is currently 110 sq.ft. BA/ac. Natural regeneration is primarily beech and ironwood.
23	4130 - Aspen	Sapling Well	27.0	15	Immature	Final harvest with reserves completed in 2001.: The reserves was Red Oak mostly along north edge. Aspen regeneration is vigorous.
24	4110 - Sugar Maple Association	Sawtimber Well	206.1	78	81-110	Northern hardwood stand with severe slopes in many locations. Average stand density is currently 110 sq.ft. BA/ac. The majority of this stand has unworkable slopes which will affect future logging operations.
26	42310 - Planted Spruce	Poletimber Well	17.2	55	141-170	White spruce plantation with an average of 170 sq.ft. BA/ac and 10"dbh. Combine this stand with the spruce plantation in Compartment 58, stand 1. Access might require opening up a road to this stand from the west through the grassy opening leading to the main north-south trail road that leads to a gate off the Jordan River Road.
27	4199 - Other Mixed Upland Deciduous	Poletimber Well	23.2	83	81-110	Northern hardwood stand that has an average density of 93 sq.ft. BA/ac. and dominated by rock elm, poor quality hardwood poles, and basswood logs 14" dbh. Lots of sugar maple saplings in sub canopy.
29	4110 - Sugar Maple Association	Sawtimber Well	142.8	78	141-170	Northern hardwood stand with an average stand density of 143 sq.ft. BA/ac. Stand would benefit from a selection harvest with the access from the Jordan Valley Road locked gate to the northeast.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	3209 - Upland Shrub (OI)	5.1	Yes	Upland brush with aspen and hardwoods encroaching around the perimeter.
5	510- Water (OI)	2.4	No	Open water present due to beaver activity.
6	3209 - Upland Shrub (OI)	4.2	No	Scattered, poorly formed hardwoods and associated brush; patches of grass.
8	3209 - Upland Shrub (OI)	6.7	Yes	Upland brush with aspen and hardwoods are encroaching around the perimeter.
9	3209 - Upland Shrub (OI)	3.4	Yes	Small upland brush stand.
10	790 - Other Bare/Sparsely Vegetate	18.4	No	This stand was final harvested due to heavy white spruce mortality with a salvage sale. Sundown Spruce, 52-009-14-01. Open contract awaiting final decked wood to haul. FTP submitted to re-plant to red pine. Some hilly terrain, but still workable to establish another plantation.
16	3209 - Upland Shrub (OI)	3.2	Yes	Upland brush.
25	622 - Lowland Shrub	1.4	No	OPIC - FMD: 2004: The coarse woody debris in this stand can be expected to provide valuable amphibian habitat along the wetland and is being set aside for that purpose. 99 is cherry, ironwood.
28	622 - Lowland Shrub	22.6	No	OPIC - FMD: 2004: The coarse woody debris in this stand can be expected to provide valuable amphibian habitat along the wetland and is being set aside for that purpose. 99 is cherry, ironwood.
30	510- Water (OI)	3.8	No	Open water present due to beaver activity.
44	510- Water (OI)	1.7	No	Open water present due to beaver activity.
48	6299 - Lowland Shrub (OI)	3.4	No	Open water present. Beaver activity.
425	31029 - Grass (OI)	7.8	Yes	Natural opening.
428	31029 - Grass (OI)	3.2	No	Natural opening
438	31029 - Grass (OI)	1.2	No	Small opening surrounded by hardwoods.