



# Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 57

Entry Year 2016

Acreage: 1,832

County Antrim

Management Area: Jordan Valley

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**Revision Date:** 02/21/2014

**Stand Examiner:** Zach Crew

**Legal Description:**

T30N R06W Sections 2,11, and 14

**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:**

Topography ranges from flat to very steep in areas. Kalkaska-Montcalm and Kalkaska-Eastlake complexes dominate the compartment. In the lower areas surrounding some of the tributaries of the Jordan you will find a Tawas-Ensley complex. The lowland surrounding the Jordan River is a Tawas Muck.

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

Ownership throughout the compartment is contiguous. The south side of the compartment is bordered by some private residences. The NW compartment is bordered by Commercial Forest Land. The other boundaries of the compartment are bordered by additional state land.

**Unique Natural Features:**

The Jordan River and its tributaries are designated as a Natural River.

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

No Archeological, Historical, or Cultural Features known.

**Special Management Designations or Considerations:**

The Jordan River flows through the compartment and it is designated as a Wild and Scenic River. The tributaries of the Jordan area designated as natural rivers as well. The Jordan Valley Pathway and North Country Trail also run through the compartment. There are two SCA's in the compartment that correspond with the areas set aside in the original Jordan Valley Management plan as potential old growth forests.

**Watershed and Fisheries Considerations:**

This compartment is located in the Jordan River watershed. Portions of the Jordan River, Landslide Creek, and numerous small tributaries are found within the proposed treatment area. Buffers appear to be appropriate for the proposed treatments. The appropriate BMP's and Natural Rivers buffers should be followed.

**Wildlife Habitat Considerations:**

Treatments in this compartment will maintain age class diversity in aspen while creating early successional habitat benefiting deer, grouse, and woodcock. Hardwood treatments will provide within stand structural diversity. Openings are prescribed to be maintained in this compartment benefiting deer, turkey, grouse, and woodcock.

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

Surface sediments consist of an end moraine of coarse-textured and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Devonian Ellsworth Shale. The Ellsworth is quarried for cement products elsewhere in the State. A gravel pit is located in Section 22 and the uplands appear to have good potential. Oil and gas potential in the area is primarily for the Antrim Shale gas play. This is part of the Jordan Valley Management Area and development is not allowed. None of the State land in the compartment is currently leased for oil and gas development. The north part of Sections 2 and 3 have offset wells and are being drained of hydrocarbons.

**Vehicle Access:**

Vehicle access along county roads is limited and is restricted to the Pinney Bridge road through the center of the compartment and Harvey Road to the south. The north part of the compartment can be accessed through some old logging roads. All access by truck is limited to the non winter months.

**Survey Needs:**

None.

**Recreational Facilities and Opportunities:**

The Jordan Valley Pathway and North Country Trail run through the compartment. In the winter the snowmobile trail follows Pinney Bridge Road.

**Fire Protection:**

This compartment does not exhibit any dangers of large scale wildland fire complexes. However that doesn't rule out the potential for small local fires that would be difficult to access.

**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**

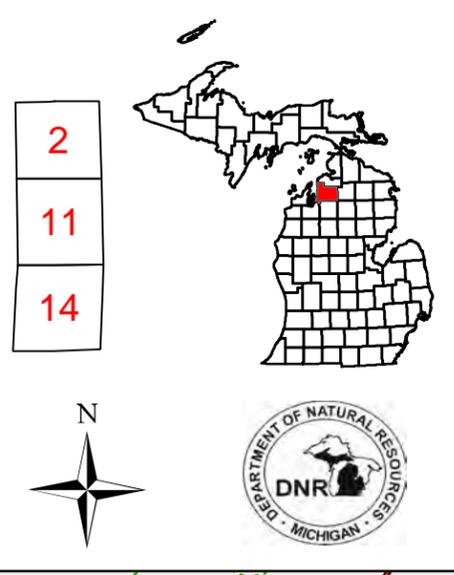
**The following information is displayed, where pertinent, on the attached compartment maps:**

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

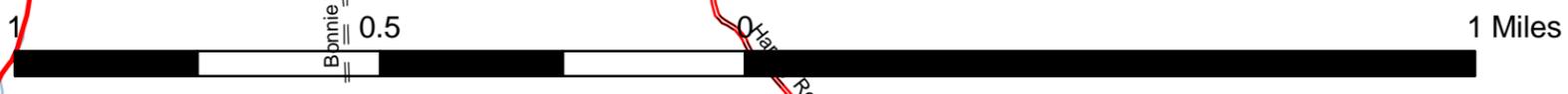
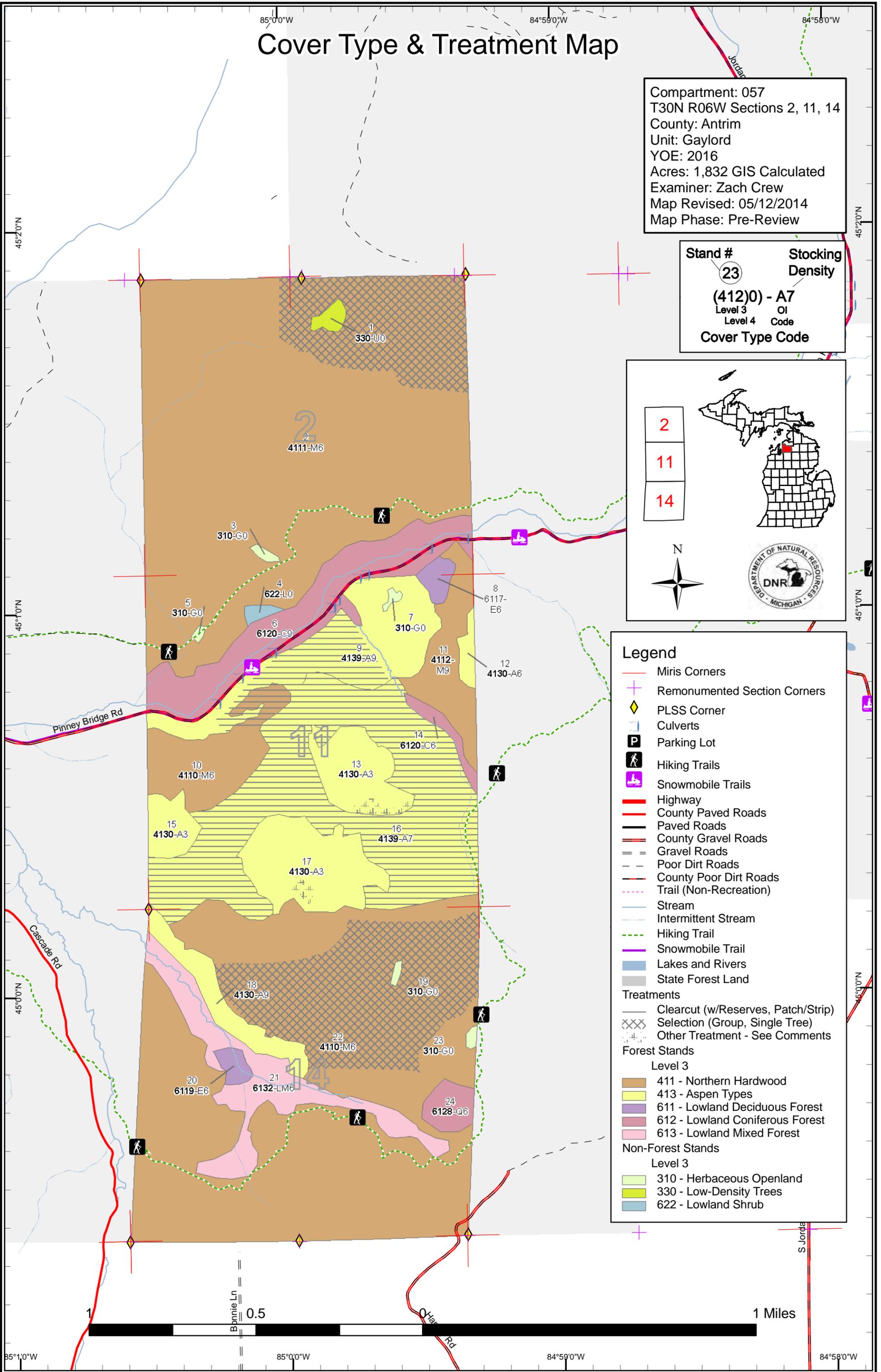
# Cover Type & Treatment Map

Compartment: 057  
 T30N R06W Sections 2, 11, 14  
 County: Antrim  
 Unit: Gaylord  
 YOY: 2016  
 Acres: 1,832 GIS Calculated  
 Examiner: Zach Crew  
 Map Revised: 05/12/2014  
 Map Phase: Pre-Review

Stand # **23**  
**(412)0 - A7**  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**



- ### Legend
- Miris Corners
  - + Remonumented Section Corners
  - ◆ PLSS Corner
  - Culverts
  - P Parking Lot
  - 🚶 Hiking Trails
  - 🚙 Snowmobile Trails
  - Highway
  - County Paved Roads
  - Paved Roads
  - County Gravel Roads
  - Gravel Roads
  - Poor Dirt Roads
  - County Poor Dirt Roads
  - Trail (Non-Recreation)
  - Stream
  - Intermittent Stream
  - Hiking Trail
  - Snowmobile Trail
  - Lakes and Rivers
  - State Forest Land
- ### Treatments
- Clearcut (w/Reserves, Patch/Strip)
  - XXX Selection (Group, Single Tree)
  - Other Treatment - See Comments
- ### Forest Stands
- Level 3
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
  - 613 - Lowland Mixed Forest
- ### Non-Forest Stands
- Level 3
- 310 - Herbaceous Openland
  - 330 - Low-Density Trees
  - 622 - Lowland Shrub



85°10'W 85°00'W 84°59'0"W 84°58'0"W

45°20'N 45°10'N 45°00'N

# Stand Boundary Map

Compartment: 057  
 T30N R06W Sections 2, 11, 14  
 County: Antrim  
 Unit: Gaylord  
 YOE: 2016  
 Acres: 1,832 GIS Calculated  
 Examiner: Zach Crew  
 Map Revised: 05/12/2014  
 Map Phase: Pre-Review

**Stand #**  
 23  
**(412)0 - A7**  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

2  
 11  
 14

N

### Legend

- Miris Corners
- Re-monumented Section Corners
- PLSS Corner
- Culverts
- Parking Lot
- Hiking Trails
- Snowmobile Trails
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Stream
- Intermittent Stream
- Hiking Trail
- Snowmobile Trail
- Stand Boundaries

### Forest Stands

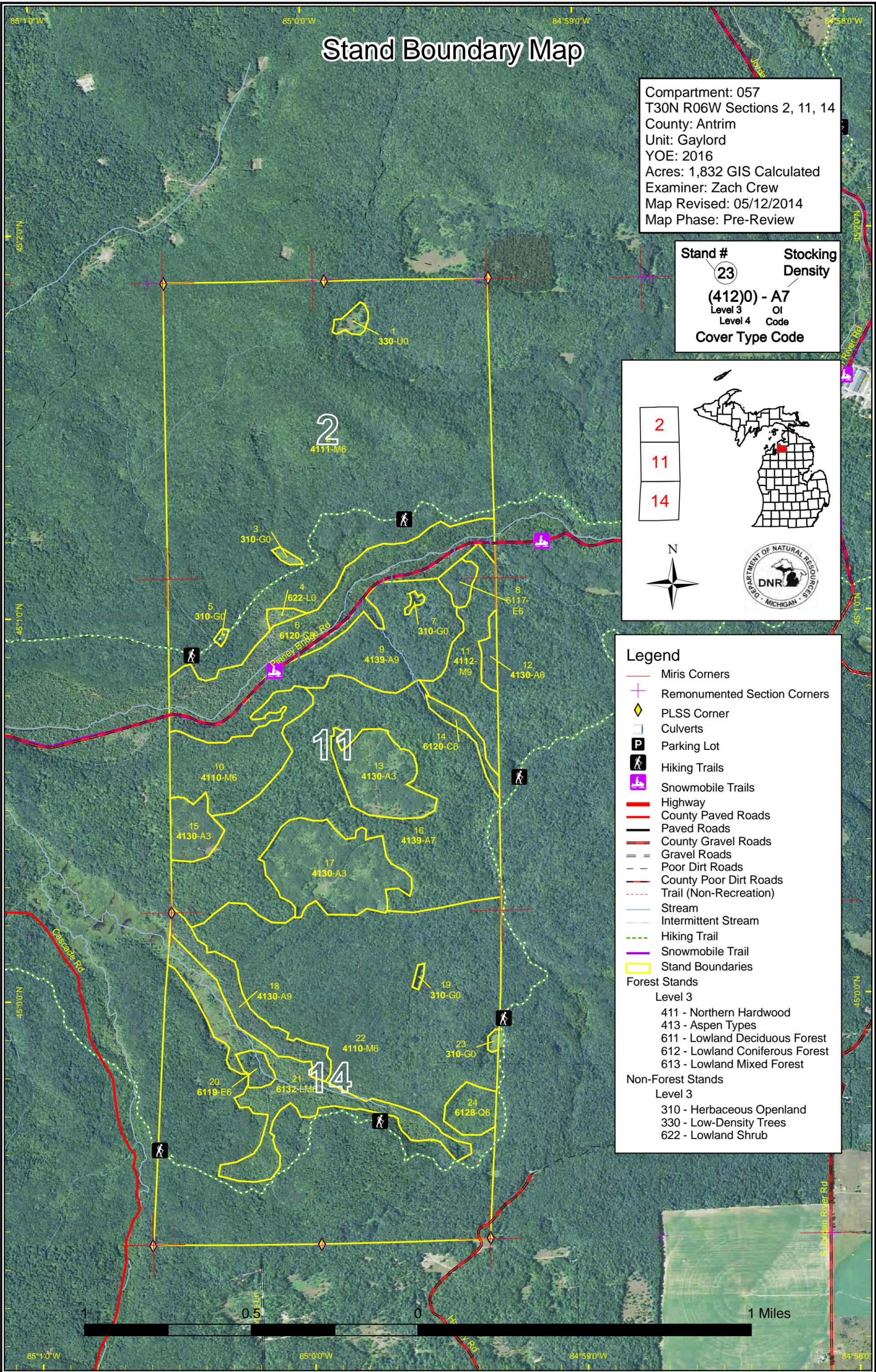
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

### Non-Forest Stands

Level 3

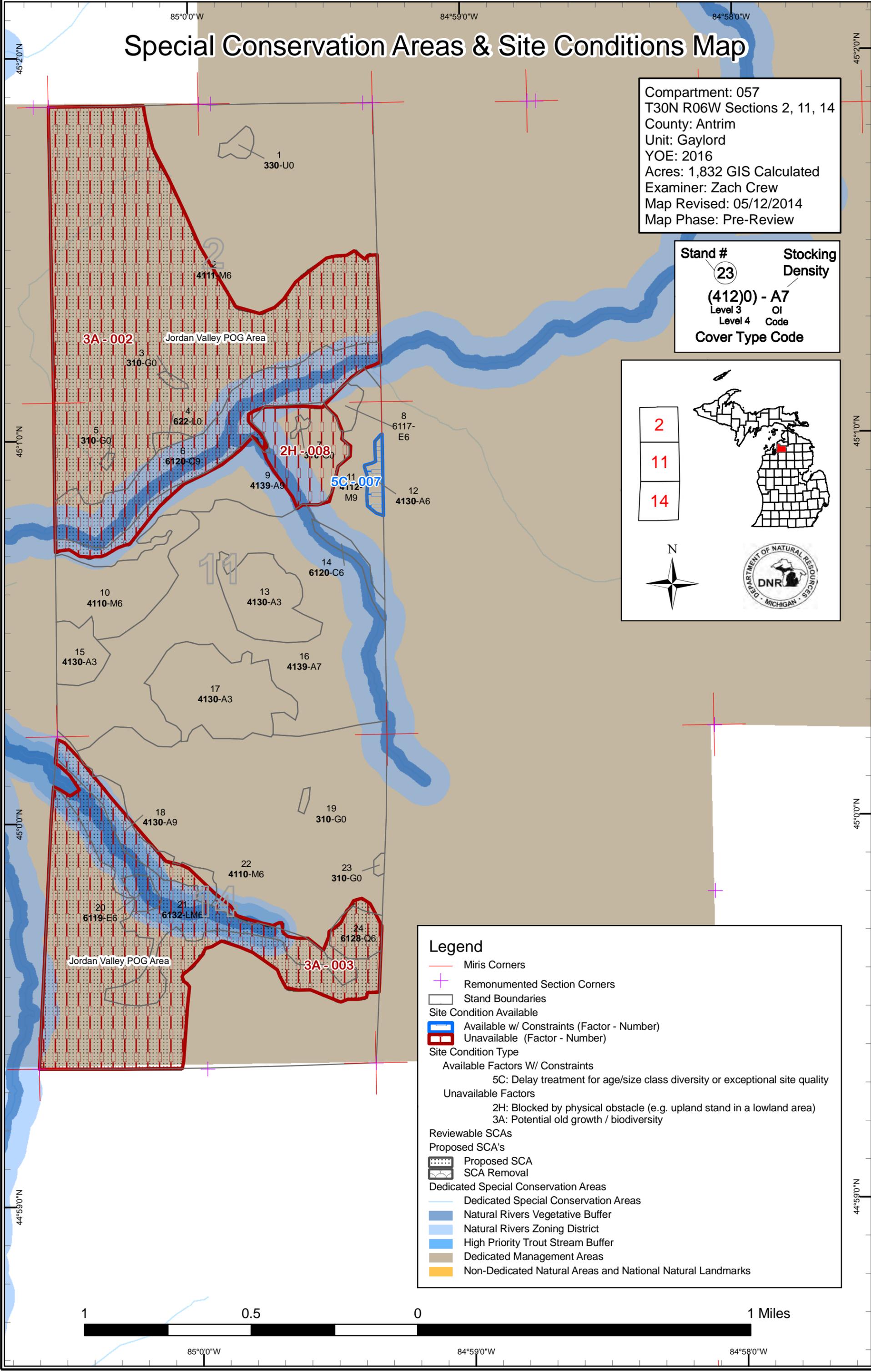
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub



# Special Conservation Areas & Site Conditions Map

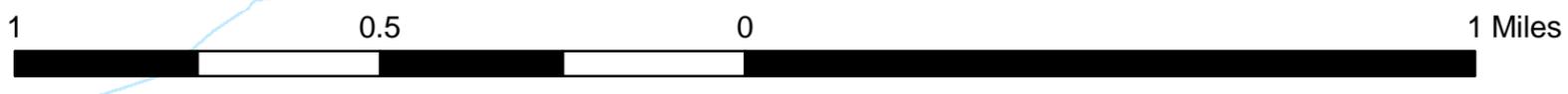
Compartment: 057  
 T30N R06W Sections 2, 11, 14  
 County: Antrim  
 Unit: Gaylord  
 YOE: 2016  
 Acres: 1,832 GIS Calculated  
 Examiner: Zach Crew  
 Map Revised: 05/12/2014  
 Map Phase: Pre-Review

Stand # **23**  
 Stacking Density  
**(412)0 - A7**  
 Level 3 OI  
 Level 4 Code  
 Cover Type Code



### Legend

- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Site Condition Type
- Available Factors W/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3A: Potential old growth / biodiversity
- Reviewable SCAs
- Proposed SCA's
- Proposed SCA
- SCA Removal
- Dedicated Special Conservation Areas
- Dedicated Special Conservation Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- High Priority Trout Stream Buffer
- Dedicated Management Areas
- Non-Dedicated Natural Areas and National Natural Landmarks



Report 1 – Total Acres by Cover Type and Age Class



	Age Class														Total
	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 +	Uneven Age	
Aspen	0	108	0	0	0	6	217	111	0	0	0	0	0	0	442
Cedar	0	0	0	0	0	0	0	7	0	85	0	0	0	0	91
Herbaceous Openland	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Low-Density Trees	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Lowland Conifers	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12
Lowland Deciduous	0	0	0	0	0	0	7	5	0	0	0	0	0	0	12
Lowland Mixed Forest	0	0	0	0	0	0	0	0	64	0	0	0	0	0	64
Lowland Shrub	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Northern Hardwood	0	0	0	0	0	0	0	582	616	0	0	0	0	0	1199
<b>Total</b>	<b>12</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>224</b>	<b>705</b>	<b>680</b>	<b>97</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1832</b>



## Report 2 – Proposed Treatment Summaries

**Gaylord Mgt. Unit**  
**Year of Entry 2016**

**Compartment 057**  
**Total Compartment Acres: 1,832**

### Acres by Treatment Type

Commercial Harvest - 516	Tree Planting - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 6	

### Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
<b>Aspen Types</b>	260	0	0	0	0	0	260
<b>Northern Hardwood</b>	0	256	0	0	0	0	256
<b>Total</b>	260	256	0	0	0	0	516



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	52057002- Cut_small	98.8	4111 - S.Maple, Hard Mast Association	High Density Pole	87	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal

Prescription Thin stand to 80 BA. Establish regen gaps where appropriate that are at least 75 feet in diameter.

Specs:

Other Not a lot of beech and ash found during inventory, no need for any salvage work. s

Comments:

Next Expected regen would mostly be a mix of sugar maple and basswood, with a small component of other northern hardwood specie. Regen survey.

Steps:

Proposed

Start Date: 10/01/2015

9	52057009-Cut	43.2	4139 - Aspen, Mixed Deciduous	High Density Log	76	81-110	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
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Prescription Final harvest stand, focus retention along the slopes to the north and east sides of the cut.

Specs:

Other Expand aspen on the west into stand 10, this is shown on the treatment map

Comments:

Next Regen survey, expected regen is to be mainly aspen dominated with a mix of scattered northern hardwood species

Steps:

Proposed

Start Date: 10/01/2015

16	52057016-Cut	217.1	4139 - Aspen, Mixed Deciduous	Low Density Log	65	51-80	Harvest	Clearcut	413 - Aspen	Cmpt. Review Proposal
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Prescription Clearcut stand to promote aspen regen.

Specs:

Other Focus retention along the Jordan Valle Pathway in the east, and the creek to the north and east. Additional retention can be placed around any seeps or nice pockets of hardwood in the stand.

Comments:

Next Regen survey. expected regen would be mostly aspen, some sparse areas, and some hardwood saplings.

Steps:

Proposed

Start Date: 10/01/2015

22	52057022- Cut_small	156.8	4110 - Sugar Maple Association	High Density Pole	78	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal
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Prescription Thin stand to 80 BA, establish regen gaps where appropriate. Regen gaps should be at least 75 ft in diameter. An turn around may need to be marked out to provide a landing for logging activity. Be sure to not run the sale boundary through the old growth area on the west side of the sale.

Specs:

Other Not a lot of beech and ash found during inventory, no need for any salvage work.

Comments:

Next Regen survey. Expected regen would be mainly a mix of sugar maple and basswood, as well as a minor component of other northern hardwood species.

Steps:

Proposed

Start Date: 10/01/2015



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
17	052051017_N onFor	2.3	4130 - Aspen	High Density Sapling	16		Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Use various management tools depending upon availability and cost to maintain the opening

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: Unspecified

13	52057013- NonFor	3.6	4130 - Aspen	High Density Sapling	16		Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal
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Prescription Use various methods depending upon availability and cost to maintain the opening

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: Unspecified

**Total Treatment  
Acreage Proposed: 521.8**



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Type! #Type!

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Proposed  
Start Date: #Type!

Limiting Factor

**Total Treatment**  
**Acreage Proposed: 0.0**

## Report 5 – Site Conditions

Gaylord Mgt. Unit  
Zach Crew : Examiner

Compartment 057  
Year of Entry 2016

### Availability for Management

Total Acres	Acres Available	Acres Not Available		Dominant Site Conditions			
				No	5C	3A	2H
441	375	67	<b>Aspen</b>	369	6	30	36
91	8	83	<b>Cedar</b>	8		82	1
12	1	12	<b>Lowland Conifers</b>	1		12	
12	6	6	<b>Lowland Deciduous</b>	6		6	0
64	3	61	<b>Lowland Mixed Forest</b>	3		61	
1198	642	556	<b>Northern Hardwood</b>	642		556	0
1,819	1,034	785	Total Forested Acres	1,028	6	747	38
	57%	43%	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
002	Not Available	<b>3A: Potential old growth / biodiversity</b>	475	3D: Recreational / Scenic values	1C: Other dept or div proc/practices	2F: Too steep	
<b>Comments:</b> This area per the Jordan Valley Management plan is to have very minimal management activity							
003	Not Available	<b>3A: Potential old growth / biodiversity</b>	277	1C: Other dept or div proc/practices	3D: Recreational / Scenic values		
<b>Comments:</b> This area was part of the Jordan River Valley Management plan and such it was agreed to leave it aside with very minimal management activity.							
007	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6				
<b>Comments:</b> Due to all the aspen cutting in this compartment it was decided to hold this stand until next YOE when we will then harvest this stand in conjunction with stand 18 in the adjacent compartment							

## Report 5 – Site Conditions

Gaylord Mgt. Unit  
Zach Crew : Examiner

Compartment 057  
Year of Entry 2016

008	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	39	2E: Road needed	2F: Too steep	3D: Recreational / Scenic values	3J: Water quality / BMPs (stream, river, or lake)
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Comments:



**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
Jordan Valley POG Area	Habitat Areas or Corridors	Habitat Corridor	SCA	751.2
<b>Comments</b>				
Jordan River Valley. Follows original Potential Old Growth coding from original Jordan Valley Management Plan				



**Report 7 – DEDICATED CONSERVATION AREA DETAILS**

\* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4111 - S.Maple, Hard Mast Association	High Density Pole	577.4	87	81-110	Most of the stand falls under the old growth designation from the original Jordan Valley Management plan, very hilly in spots. white as dying out, evidence of bbd. Both EAB and BBD are widespread in this compartment
6	6120 - Lowland Cedar	High Density Log	84.6	98	141-170	Lowland cedar stand surrounding the Jordan River. In order to comply with the Jordan River Management plans and BMP's this stand will never be cut unless something changes in the future.
8	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	6.6	67	51-80	Lowland poplar mixed with balsam fir and scattered cedar and hemlock
9	4139 - Aspen, Mixed Deciduous	High Density Log	84.2	76	81-110	Mainly aspen clones that decrease as you go away from the river
10	4110 - Sugar Maple Association	High Density Pole	50.9	75	81-110	Hardwood stand, looks to be possible access of an old logging road. evidence of BBD and EAB throughout stand and compartment
11	4112 - Maple, Beech, Cherry Association	High Density Log	38.9	80	51-80	hardwood stand, fair quality
12	4130 - Aspen	High Density Pole	5.6	59	51-80	doesn't look to be very accessible, some topography and water features.
13	4130 - Aspen	High Density Sapling	35.3	16		Clearcut in 1998 as part of Flat Iron wildlife cuts.
14	6120 - Lowland Cedar	High Density Pole	6.7	79	141-170	Lowland drainage with cedar and hemlock
15	4130 - Aspen	High Density Sapling	15.5	16		Stand clearcut in to promote aspen, regenerating nicely, scattered hardwoods mixed in among the aspen clones.
16	4139 - Aspen, Mixed Deciduous	Low Density Log	217.1	65	51-80	pockets of aspen and hardwood, very low stocking, lots of ironwood developing between pockets
17	4130 - Aspen	High Density Sapling	57.5	16		Clearcut in 1998 as part of Flat Iron Wildlife Sale. Regenerating nicely, good wildlife habitat, a few small open areas intermixed with aspen clones and hardwood regen
18	4130 - Aspen	High Density Log	26.6	78	81-110	fully stocked overmature aspen
20	6119 - Mixed Lowland Deciduous Forest	High Density Pole	5.4	71	51-80	E type, some pockets of BAM, sugar maple present on higher areas
21	6132 - Mixed Lowland Forest with Cedar	High Density Pole	64.0	82	111-140	Lowland area between to creeks that feed into the Jordan river, mixed stand that in some areas is pure cedar whereas other areas are BAM/RM/YB

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Gaylord Mgt. Unit

Report 8 – Forested Stands

Compartment: 057  
Year of Entry: 2016



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4110 - Sugar Maple Association	High Density Pole	531.3	78	81-110	hardwood stand, SE corner thinned as part of Landslide Hardwoods in 2008? NE portion of stand thinned as part of Inspiration hardwoods in the mid to late 90s
24	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	12.3	90	171-200	Lots of seeps, water features all over



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	330 - Low-Density Trees	4.1	No	Unspecified	
3	310 - Herbaceous Openland	1.5	No	Unspecified	
4	622 - Lowland Shrub	2.6	No	Unspecified	
5	310 - Herbaceous Openland	0.8	No	Unspecified	
7	310 - Herbaceous Openland	1.1	No	Unspecified	
19	310 - Herbaceous Openland	1.0	No	Unspecified	
23	310 - Herbaceous Openland	1.2	No	Unspecified	