



# Compartment Review Presentation

Gaylord Forest Management Unit

Compartment 125

Entry Year 2016

Acreage: 1,202

County Emmet

Management Area: Chandler Hills

**Revision Date:** 02/27/2014

**Stand Examiner:** Shannon Harig

**Legal Description:**

T35N R04W Sec. 27,28,32,33,34

**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:**

Soils are mostly of the Carbondale-Tawas-Roscommon Association. Topography is level throughout the compartment.

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

The land surrounding this compartment is mostly residential, especially around the lakes. The state land is fairly contiguous.

**Unique Natural Features:**

No Unique Natural Features known.

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

No Archeological, Historical, or Cultural Features known.

**Special Management Designations or Considerations:**

None

**Watershed and Fisheries Considerations:**

This compartment contains portions of Minnehaha Creek, Silver Creek, and Mud Creek, and is adjacent to Pickerel Lake, which is part of the Inland Waterway. All of the streams are designated trout streams. A small coldwater stream flows through stand 19. Since the management goal is to regenerate lowland conifer, the standard 100' buffer (no clearcut) should be maintained adjacent to this stream. Some map layers also show a small coldwater stream flowing through Stand 14 that was not obvious during inventory. If further investigation reveals this to be a true drainage, an appropriate buffer should be maintained.

**Wildlife Habitat Considerations:**

Treatments in this compartment will maintain age class diversity in lowland conifers/aspen while creating early successional habitat benefiting deer, grouse, and woodcock.

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

Surface sediments consist of lacustrine (lake) sand and gravel. The glacial drift thickness varies between 50 and 200 feet. The Devonian Traverse Group subgroups below the glacial drift. The Traverse is quarried for stone and cement products. Gravel pits are found in this area and gravel potential appears to be good. The nearest oil and gas production, the Antrim Shale gas play, is located 18 miles to the south. This area was previously leased for Collingwood Formation development and a few leases are still located in the area.

**Vehicle Access:**

Poor access to a majority of this compartment.

**Survey Needs:**

**Recreational Facilities and Opportunities:**

No developed facilities in this compartment. Recreational opportunities are restricted by access.

**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:**

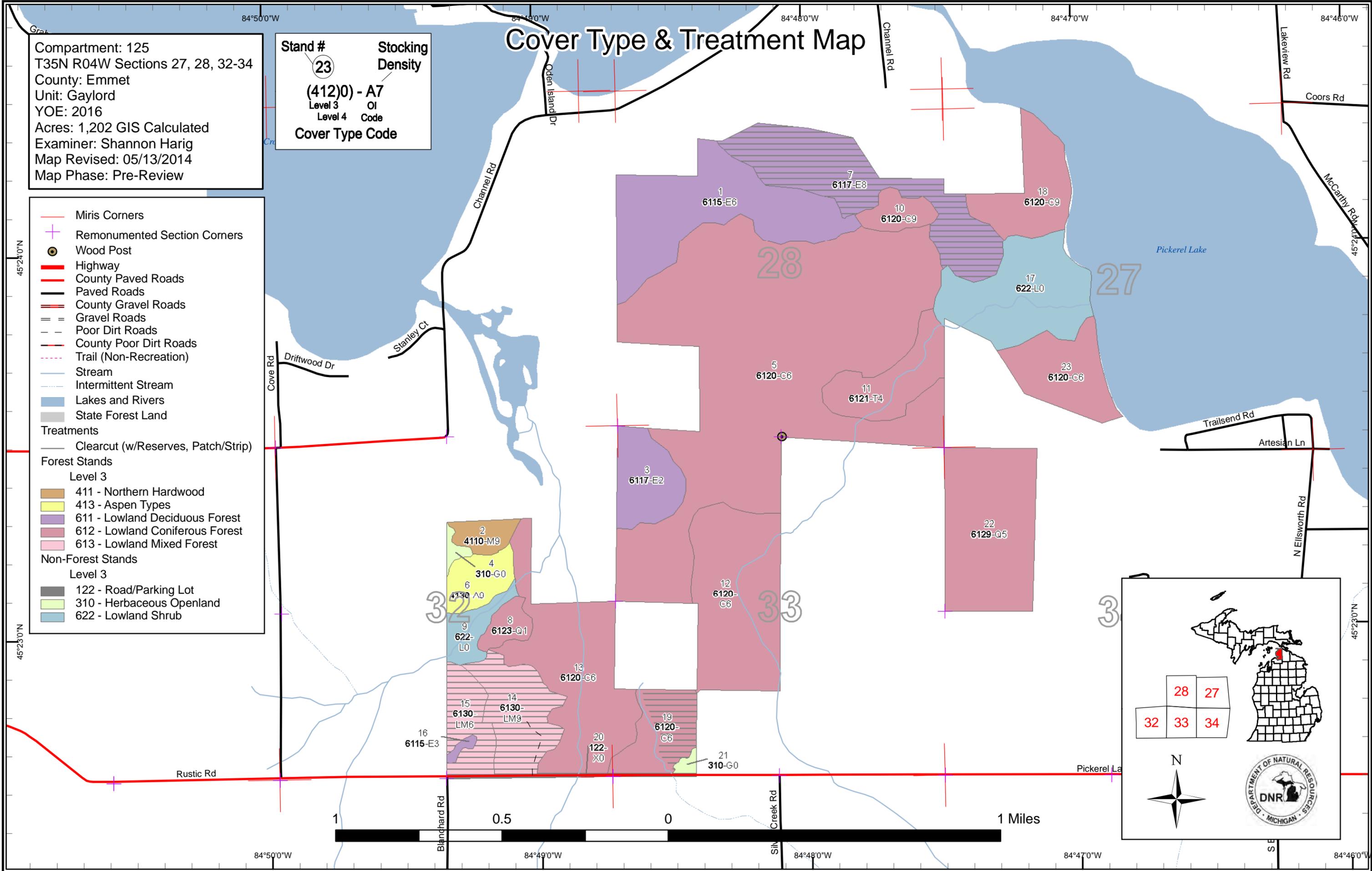
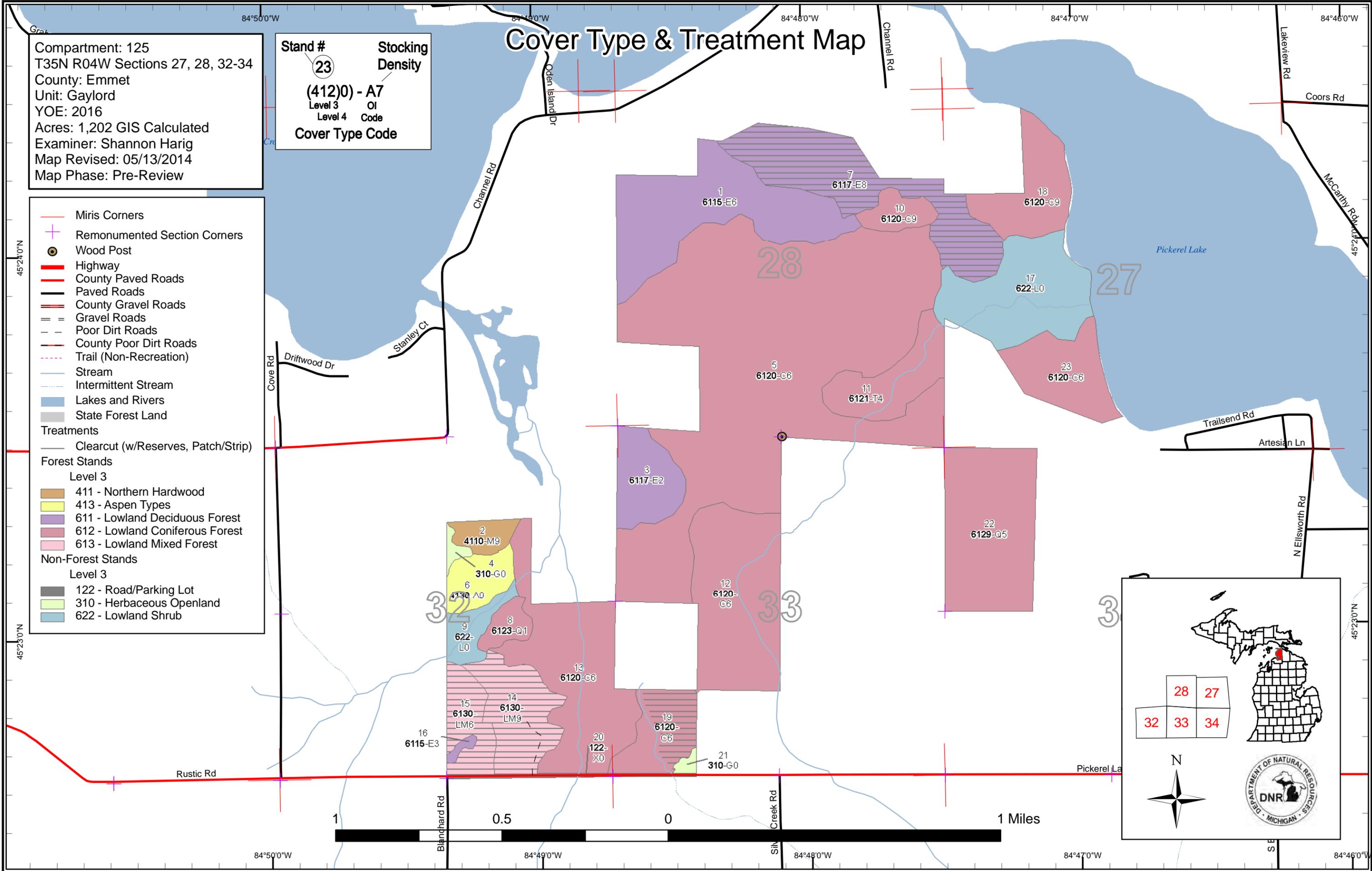
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatment Map

Compartment: 125  
 T35N R04W Sections 27, 28, 32-34  
 County: Emmet  
 Unit: Gaylord  
 YOE: 2016  
 Acres: 1,202 GIS Calculated  
 Examiner: Shannon Harig  
 Map Revised: 05/13/2014  
 Map Phase: Pre-Review

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

- Miris Corners
- ⊕ Remonumented Section Corners
- Wood Post
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
- 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
- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 622 - Lowland Shrub

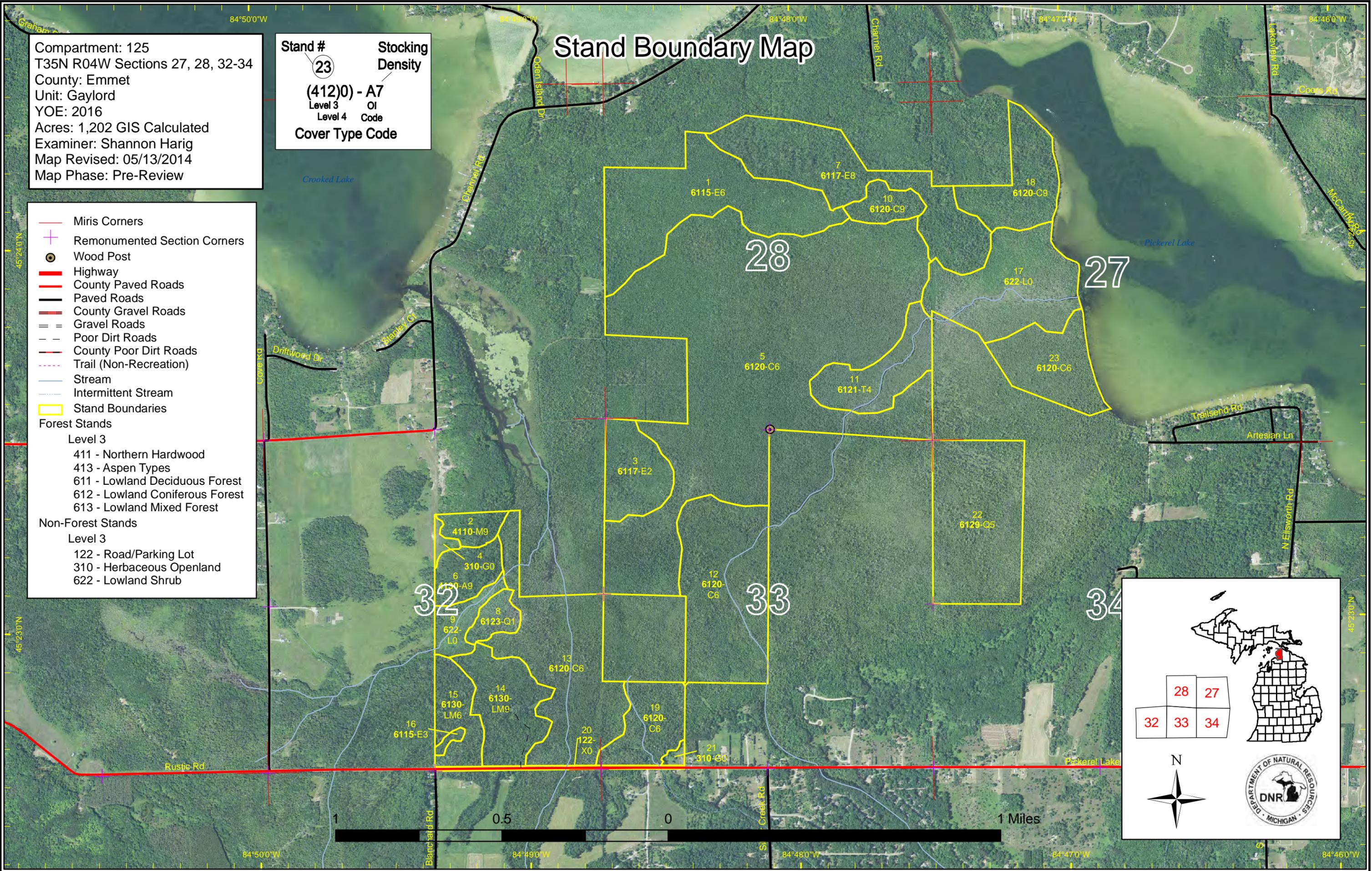



# Stand Boundary Map

Compartment: 125  
 T35N R04W Sections 27, 28, 32-34  
 County: Emmet  
 Unit: Gaylord  
 YOE: 2016  
 Acres: 1,202 GIS Calculated  
 Examiner: Shannon Harig  
 Map Revised: 05/13/2014  
 Map Phase: Pre-Review

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

- Miris Corners
  - ⊕ Remonumented Section Corners
  - Wood Post
  - Highway
  - County Paved Roads
  - Paved Roads
  - County Gravel Roads
  - Gravel Roads
  - Poor Dirt Roads
  - County Poor Dirt Roads
  - Trail (Non-Recreation)
  - Stream
  - Intermittent Stream
  - 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
  - 122 - Road/Parking Lot
  - 310 - Herbaceous Openland
  - 622 - Lowland Shrub



# Special Conservation Areas & Site Conditions Map

Compartment: 125  
 T35N R04W Sections 27, 28, 32-34  
 County: Emmet  
 Unit: Gaylord  
 YOE: 2016  
 Acres: 1,202 GIS Calculated  
 Examiner: Shannon Harig  
 Map Revised: 05/13/2014  
 Map Phase: Pre-Review

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

— Miris Corners  
 + Remonumented Section Corners  
 □ Stand Boundaries

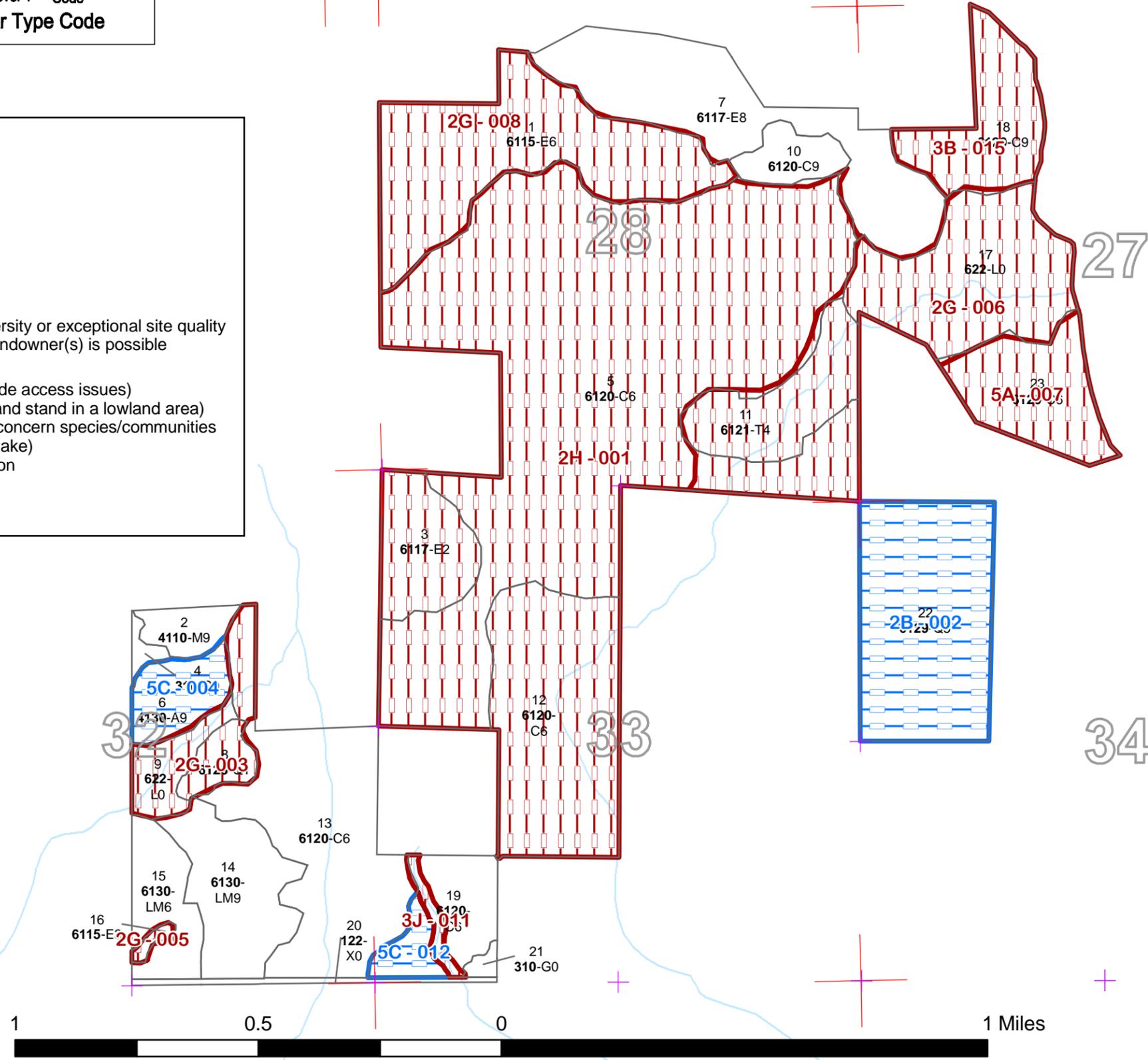
Site Condition Available  
 Available w/ Constraints (Factor - Number)  
 Unavailable (Factor - Number)

Site Condition Type

Available Factors W/ Constraints  
 5C: Delay treatment for age/size class diversity or exceptional site quality  
 2B: Unknown if access through adjacent landowner(s) is possible

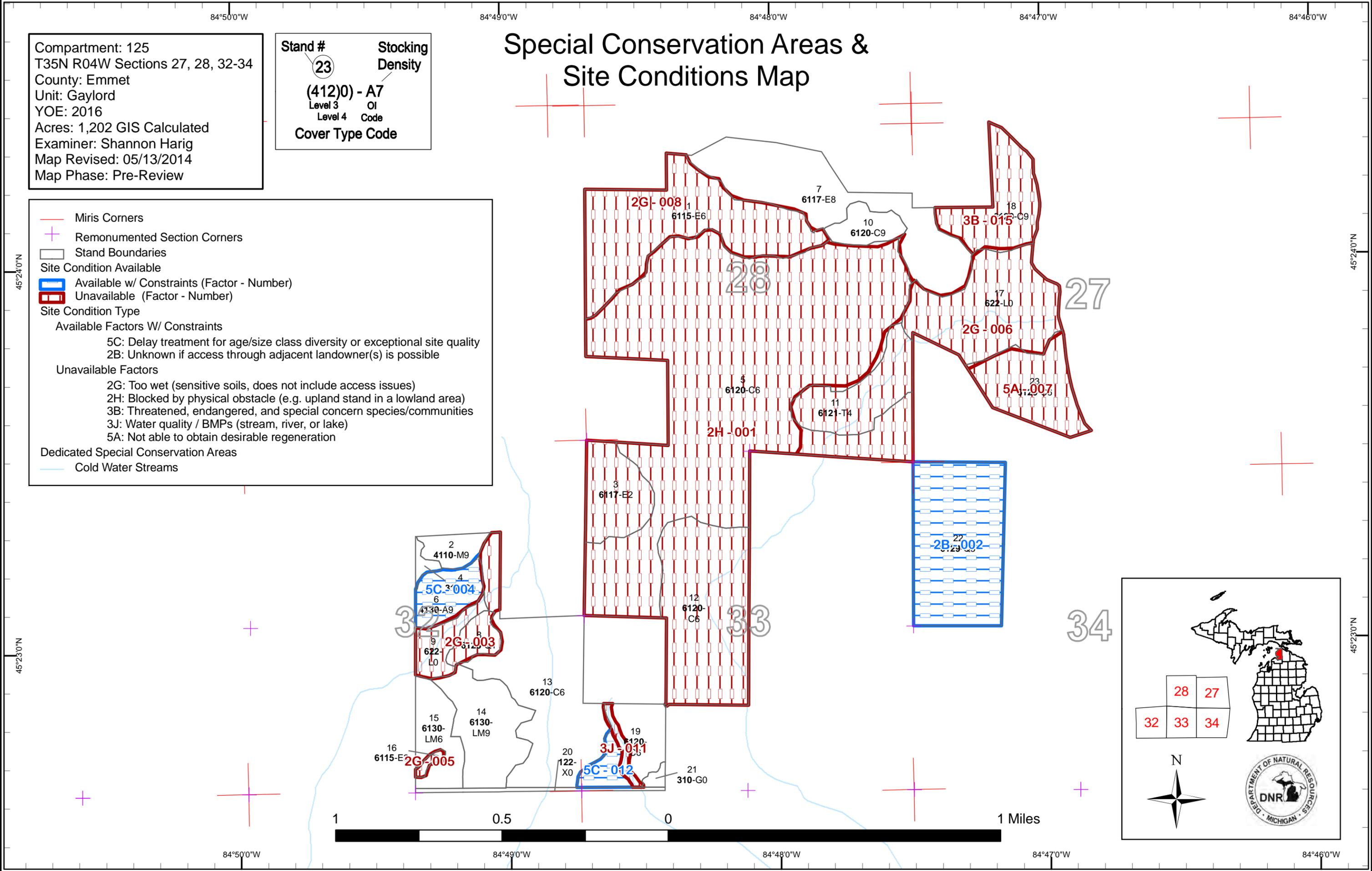
Unavailable Factors  
 2G: Too wet (sensitive soils, does not include access issues)  
 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)  
 3B: Threatened, endangered, and special concern species/communities  
 3J: Water quality / BMPs (stream, river, or lake)  
 5A: Not able to obtain desirable regeneration

Dedicated Special Conservation Areas  
 Cold Water Streams



28 27  
 32 33 34

N



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	0	0	0	0	0	19	0	0	0	0	0	0	0	19
Cedar	0	0	0	0	0	0	0	0	0	91	90	465	30	0	676
Herbaceous Openland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Lowland Conifers	0	10	0	0	0	0	0	0	0	0	0	0	85	0	95
Lowland Deciduous	0	31	2	0	94	0	0	0	81	0	0	0	0	0	208
Lowland Mixed Forest	0	0	0	0	0	0	65	0	0	0	0	0	0	0	65
Lowland Shrub	83	0	0	0	0	0	0	0	0	0	0	0	0	0	83
Northern Hardwood	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10
Tamarack	0	0	0	0	0	0	0	0	36	0	0	0	0	0	36
Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
<b>Total</b>	<b>93</b>	<b>41</b>	<b>2</b>	<b>0</b>	<b>94</b>	<b>0</b>	<b>84</b>	<b>10</b>	<b>117</b>	<b>91</b>	<b>90</b>	<b>465</b>	<b>115</b>	<b>0</b>	<b>1202</b>



## Report 2 – Proposed Treatment Summaries

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

**Compartment 125**  
**Total Compartment Acres: 1,202**

### Acres by Treatment Type

Commercial Harvest - 163    Tree Planting - 0    Other - 0  
 Habitat Cut - 0    Opening Maintenance - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Lowland Coniferous Forest	17	0	0	0	0	0	17
Lowland Deciduous Forest	81	0	0	0	0	0	81
Lowland Mixed Forest	65	0	0	0	0	0	65
<b>Total</b>	<b>163</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>163</b>



S  
t  
a  
n  
d

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
7 52125007-CC	81.0	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Log	88	1-50	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal

Prescription Clearcut with reserves. Leave retention in pockets.

Specs:

Other

Comments:

Next Steps: Medium to well stocked aspen, balsam fir and cedar is acceptable. Regen survey.

Proposed

Start Date: 10/01/2015

14 52125014_CC	41.2	6130 - Fir, Aspen, Maple	High Density Log	64	81-110	Harvest	Clearcut with Reserves	6130 - Fir, Aspen, Maple	Cmpt. Review Proposal
----------------	------	--------------------------	------------------	----	--------	---------	------------------------	--------------------------	-----------------------

Prescription Clearcut with reserves. Leave retention in pockets including hemlock where possible.

Specs:

Other

Comments: The Michigan River Fisheries Classification map layer show a stream (possibly Silver Creek) running through this stand. The base layer shows it to the east farther. It was not observed on the ground this winter during inventory operations in the Michigan River Fisheries location but FD requested that if it is found to be there when sale boundaries are located that they be contacted and sale boundaries ammended.

Next Steps: Medium to well stocked aspen, fir, red maple, cedar and spruce is acceptable. Regeneration survey.

Proposed

Start Date: 10/01/2015

15 52125015_CC	23.5	6130 - Fir, Aspen, Maple	High Density Pole	64	141-170	Harvest	Clearcut with Reserves	6130 - Fir, Aspen, Maple	Cmpt. Review Proposal
----------------	------	--------------------------	-------------------	----	---------	---------	------------------------	--------------------------	-----------------------

Prescription Clearcut with reserves. Leave retention in pockets including hemlock where possible.

Specs:

Other

Comments:

Next Steps: Medium to well stocked aspen, fir, red maple, cedar and spruce is acceptable. Regeneration survey.

Proposed

Start Date: 10/01/2015

19 52125019-CC	17.4	6120 - Lowland Cedar	High Density Pole	150	141-170	Harvest	Clearcut with Reserves	6120 - Lowland Cedar	Cmpt. Review Proposal
----------------	------	----------------------	-------------------	-----	---------	---------	------------------------	----------------------	-----------------------

Prescription Clearcut with reserves. Leave retention in pockets. Do not harvest within 100' of the stream along the west side of the treatment.

Specs:

Other

Comments:

Next Steps: Medium to well stocked cedar, spruce, balsam fir and tamarack is acceptable regen. Regeneration survey.

Proposed

Start Date: 10/01/2015

**Total Treatment  
Acreage Proposed: 163.0**



S  
t  
a  
n  
d

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

#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  
Shannon Harig : Examiner

Compartment 125  
Year of Entry 2016

### Dominant Site Conditions

	No	5C	5A	3J	3B	2H	2G	2B
Aspen	0	18					0	
Cedar	114	9	39	4	39	436	35	
Lowland Conifers	0						10	85
Lowland Deciduous	80					32	96	
Lowland Mixed Forest	64							
Northern Hardwood	10							
Tamarack						0	36	
Total Forested Acres	269	27	39	4	39	467	177	85
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	Dominant Site Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
001	Not Available		<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	468	4A: No merchantable products (see product standards)	5A: Not able to obtain desirable regeneration	2E: Road needed	
<b>Comments:</b> Most of the cedar in these stands are 5 - 7 inch DBH, 1 stick trees, some beginning to show some top die back. Considerable road work would be needed to access most of this area.								
002	Available		<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	85	2E: Road needed			
<b>Comments:</b>								
003	Not Available		<b>2G: Too wet (sensitive soils, does not include access issues)</b>	32				
<b>Comments:</b>								

## Report 5 – Site Conditions

Gaylord Mgt. Unit  
Shannon Harig : Examiner

Compartment 125  
Year of Entry 2016

004	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	19		
<b>Comments:</b>					
005	Not Available	2G: Too wet (sensitive soils, does not include access issues)	2		
<b>Comments:</b>					
006	Not Available	2G: Too wet (sensitive soils, does not include access issues)	131		
<b>Comments:</b>					
007	Not Available	5A: Not able to obtain desirable regeneration	39	4A: No merchantable products (see product standards)	
<b>Comments:</b>					
008	Not Available	2G: Too wet (sensitive soils, does not include access issues)	94		
<b>Comments:</b>					
011	Not Available	3J: Water quality / BMPs (stream, river, or lake)	4		
<b>Comments:</b>					

**Report 5 – Site Conditions**

**Gaylord Mgt. Unit**  
**Shannon Harig : Examiner**

**Compartment 125**  
**Year of Entry 2016**

012	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9
-----	-----------	--	---

**Comments:**

015	Not Available	3B: Threatened, endangered, and special concern species/communities	39
-----	---------------	---	----

**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
<b>Comments</b>				



## 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	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6115 - Lowland Ash	High Density Pole	94.4	41	1-50	EAB present in the stand in the few larger ash.
2	4110 - Sugar Maple Association	High Density Log	10.5	70	51-80	Poor quality stems.
3	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density	31.2	15		Healthy regen. It appears there was a significant wind event approximately 15 to 20 years ago that knocked over all of the trees in this stand resulting in the current regeneration.
5	6120 - Lowland Cedar	High Density Pole	372.8	118	51-80	Starting to see dieback in the tops of some of the cedar.
6	4130 - Aspen	High Density Log	18.8	62	111-140	Looks healthy.
7	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Log	81.0	88	1-50	Aspen is losing vigor, it is likely that most of it will fall out of the stand within the next decade. EAB present in the a lot of the ash.
8	6123 - Lowland Fir	Low Density Sapling	10.0	15		Dead pole size cedar, spruce and fir. Light/medium stocking of balsm fir. There may be spruce and cedar regen under the snow. Considerable deadfall.
10	6120 - Lowland Cedar	High Density Log	13.1	116	141-170	Nice looking stand of cedar.
11	6121 - Tamarack	Low Density Pole	35.7	88	1-50	A lot of cedar mortality, borderline non-forested.
12	6120 - Lowland Cedar	High Density Pole	89.6	107	111-140	Scattered large white pine. Stand looks fairly healthy.
13	6120 - Lowland Cedar	High Density Pole	90.6	98	171-200	Cedar looks healthy.
14	6130 - Fir, Aspen, Maple	High Density Log	41.2	64	81-110	Aspen is starting to show signs of mortality. Some pockets of hemlock in south part of the stand.
15	6130 - Fir, Aspen, Maple	High Density Pole	23.5	64	141-170	Some aspen mortality. Some hemlock present.
16	6115 - Lowland Ash	High Density Sapling	1.9	25		
18	6120 - Lowland Cedar	High Density Log	39.8	116	111-140	EAB present in ash. Aspen is losing vigor.
19	6120 - Lowland Cedar	High Density Pole	30.0	150	141-170	Starting to see some mortality in the cedar.
22	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	85.0	136	1-50	

S  
t  
a  
n  
d

Gaylord Mgt. Unit

Report 8 – Forested Stands

Compartment: 125  
Year of Entry: 2016



---

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
23	6120 - Lowland Cedar	High Density Pole	39.8	118	81-110	Tops are dying back in most of the trees in this stand. Already a lot of mortality. A lot of beaver activity on Mud Creek,

---



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	310 - Herbaceous Openland	2.9	Unspecified	Unspecified	A lot of sumac and some cherry coming in.
9	622 - Lowland Shrub	14.0	Unspecified	Unspecified	Beaver activity. A lot of dead cedar.
17	622 - Lowland Shrub	69.0	Unspecified	Unspecified	Tag alder and cattail. Most of the overstory is dead. There are a few balsam fir and cedar hanging on but not healthy.
20	122 - Road/Parking Lot	5.4	Unspecified	Unspecified	
21	310 - Herbaceous Openland	2.1	Unspecified	Unspecified	