



COMPARTMENT REVIEW PRESENTATION

GAYLORD FOREST MANAGEMENT UNIT

COMPARTMENT: 170

ENTRY YEAR: 2012

ACREAGE: 1,587

COUNTY: Cheboygan

Revision Date: 04/06/2010

Stand Examiner: Shannon Harig

Legal Description: T34N R02W Sec. 16, 17, 20, 21

Management 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: The topography in this compartment is mostly rolling. Soils are well drained, mostly Blue Lake Loamy Sand, Cheboygan Loamy Sand and Rubicon Sand.

Ownership Patterns, Development, and Land Use in and Around the Compartment: State ownership is fairly contiguous. Private ownership is mostly larger parcels with few residences. This area is primarily used for various recreational pursuits.

Unique, Natural Features:

Archeological, Historical, and Cultural Features: None known.

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations: This compartment contains portions of Johnson Creek and the Little Sturgeon River, designated trout streams within the Cheboygan River watershed. A 300-foot no clear-cut buffer should be maintained adjacent to these streams to discourage beaver activity. Work in the seeps/drainages in Stand 74 should be avoided. Also, there is currently a ford through the Little Sturgeon River in this compartment. An appropriately-size culvert and road-stream crossing should be placed at that location. It is my understanding that an RDR has already been submitted for this work to be done, but wanted to document the situation as part of this compartment review.

Wildlife Habitat Considerations: This compartment contains a wide range of cover types including upland hardwoods, aspen, lowland conifers, mixed upland conifers and oak. Due to the heavy oak component of this compartment it is heavily used by deer, turkey, grouse, and elk. It also receives heavy hunting pressure especially during acorn years. Stands 48 and 74 are going to be final harvested to provide some early successional habitat. Some mature oak will be left in stand 74 for hard mast production.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of ice-contact outwash sand and gravel. The glacial drift thickness varies between 50 and 200 feet. The Devonian Antrim Shale and Traverse Limestone subcrop below the glacial drift. The Antrim is quarried for cement products and the Traverse for limestone, elsewhere in the state. Gravel pits are located on the uplands in the compartment and the compartment has good gravel potential. The nearest oil and gas production, the Antrim Shale gas play, is located 10 miles to the south in Otsego County. There is limited oil and gas potential for the Antrim Shale in the area, but most of the Compartment is leased for development.

Vehicle Access: Good access to most of the compartment.

Survey Needs: None

Recreational Facilities and Opportunities: There are no organized recreational facilities in this compartment.

Fire Protection:

Additional Compartment Information:

- **The following 3 reports from the IFMAP Inventory System are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand numbers, cover types**
 - ◆ **Proposed treatments**
 - ◆ **Proposed road access system**
 - ◆ **Suggested potential and current SCA's**

Cover Type & Treatment Map

Compartment 170
 T34N, R02W, Sec. 16, 17, 20, 21
 County: Cheboygan
 Unit: Gaylord
 YOE: 2012
 Acres: 1,586 GIS Calculated
 Stand Examiner: Shannon Harig
 Map Revised: 05/27/2010
 Map Phase: Pre-Review

Legend

- Miris Corners
- Pipe
- Power
- Paved Roads
- - - Poor Dirt Roads
- - - Roads Proposed For Closure
- - - Trails
- - - Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Treatments

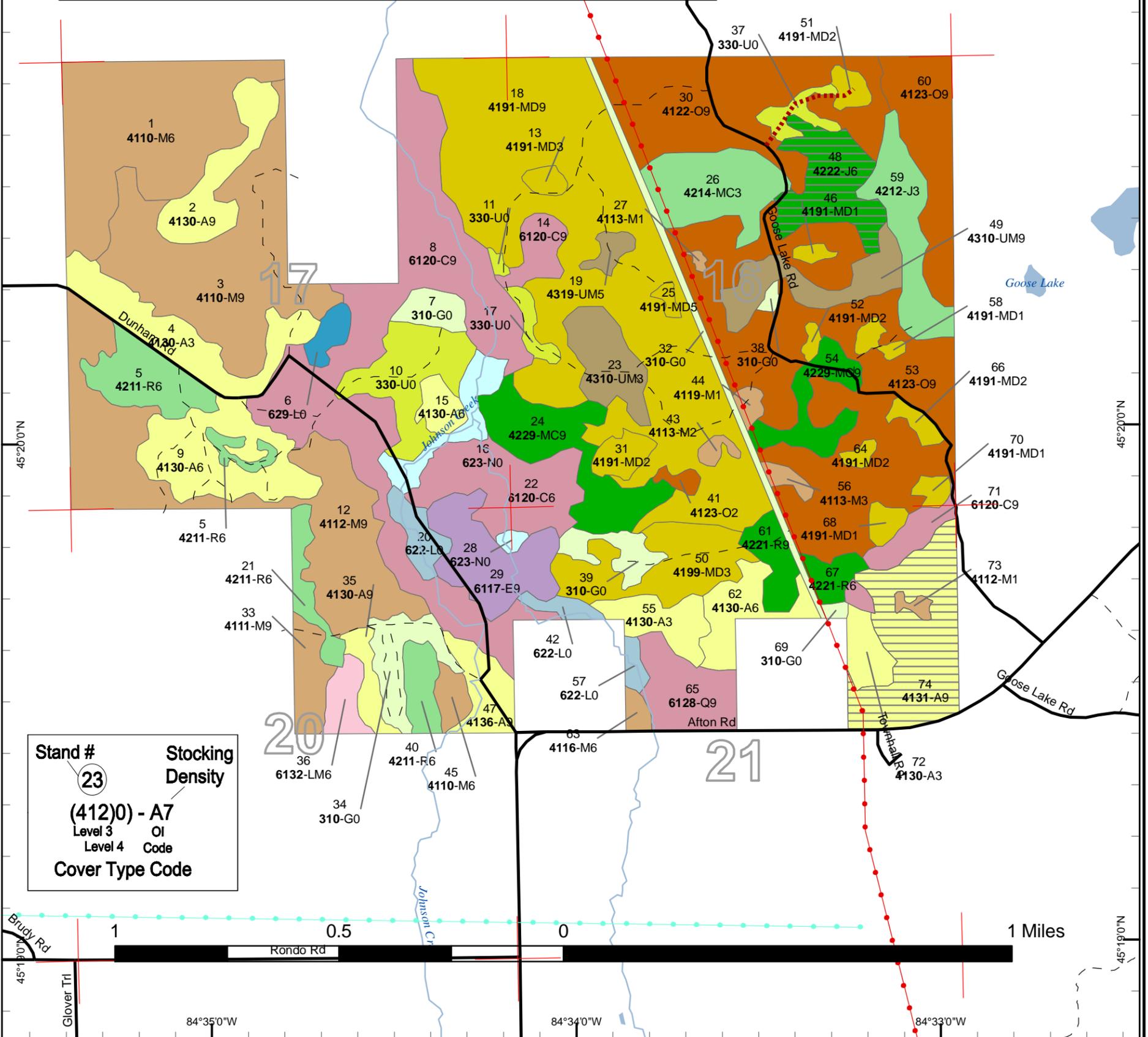
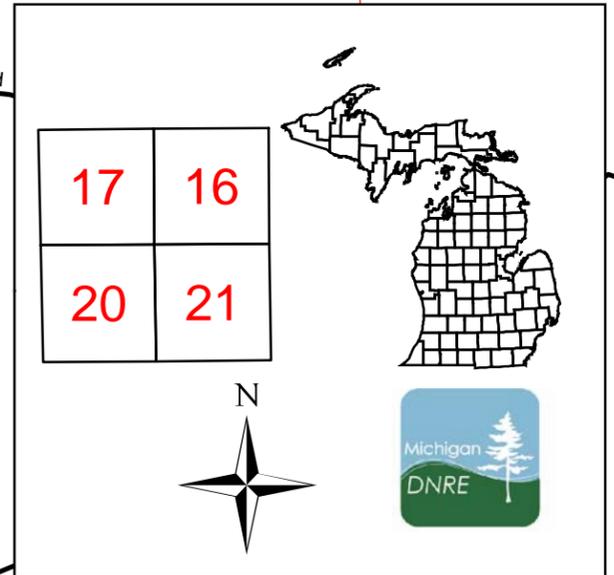
- Clearcut (w/Reserves, Patch/Strip)

Forest Stands

- Level 3
- 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen Types
 - 414 - Other Upland Deciduous
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 429 - Mixed Upland Conifers
 - 431 - Upland Mixed Forest
 - 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
 - 623 - Emergent Wetland
 - 629 - Mixed non-forested wetland

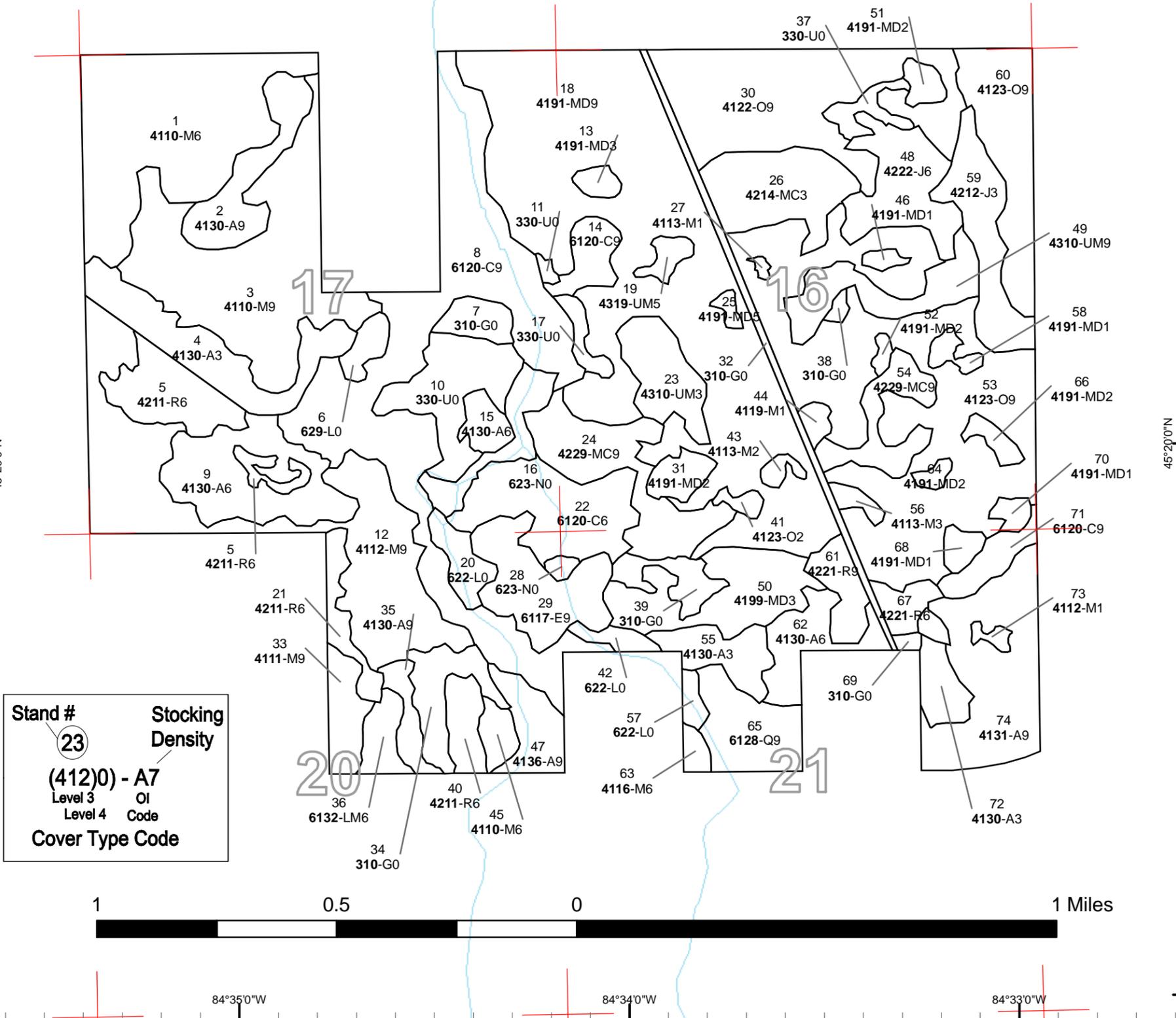
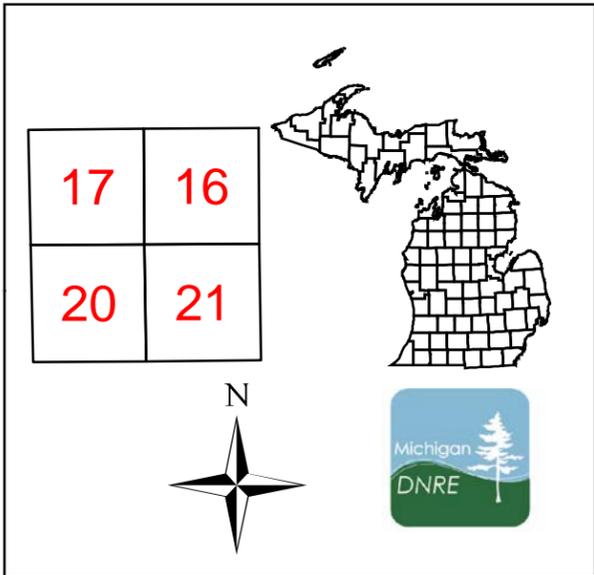


Stand #
 23
 Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code

Dedicated & Proposed Special Conservation Area Map

Compartment 170
T34N, R02W, Sec. 16, 17, 20, 21
County: Cheboygan
Unit: Gaylord
YOE: 2012
Acres: 1,586 GIS Calculated
Stand Examiner: Shannon Harig
Map Revised: 05/27/2010
Map Phase: Pre-Review

- Legend**
- Miris Corners
 - Stand Boundaries
 - Forest Stands**
 - Level 3
 - 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen Types
 - 414 - Other Upland Deciduous
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 429 - Mixed Upland Conifers
 - 431 - Upland Mixed Forest
 - 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
 - 623 - Emergent Wetland
 - 629 - Mixed non-forested wetland
 - Dedicated Special Conservation Areas**
 - Cold Water Streams



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

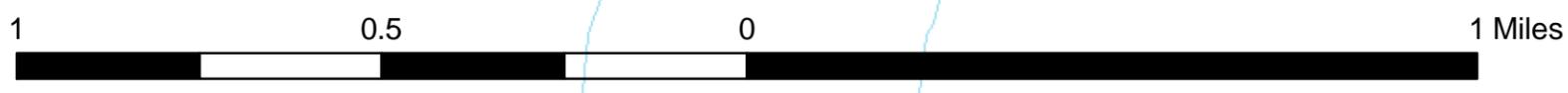


Table 1 – Total Acres by Cover Type and Age Class
(Level 3 Cover Type)



	Age Class														Total	
	Non-Forested	1-9	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 Types	0	0	54	59	0	0	0	0	21	48	22	0	0	0	0	203
Emergent Wetland	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Herbaceous Openland	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Low-Density Trees	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
Lowland Coniferous Forest	0	0	0	0	0	0	0	0	0	0	198	0	0	0	0	198
Lowland Deciduous Forest	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	29
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8
Lowland Shrub	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Mixed non-forested wetland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Mixed Upland Deciduous	0	34	0	0	0	0	0	0	0	2	200	0	0	0	31	267
Natural Pines	0	0	0	0	0	17	0	16	26	33	0	0	0	0	0	93
Northern Hardwood	0	11	0	0	0	0	0	6	3	92	168	0	0	0	0	279
Oak Types	0	2	0	0	0	0	0	33	0	0	212	0	0	0	0	248
Planted Pines	0	0	55	0	0	0	43	0	0	0	0	0	0	0	0	98
Upland Mixed Forest	0	18	0	0	0	0	0	0	21	4	0	0	0	0	0	43
Total	120	65	109	59	0	17	43	55	71	207	800	0	0	8	31	1586



Table 2 – Proposed Treatment Summaries

Gaylord Mgt. Unit
Year of Entry 2012

Compartment 170
Total Compartment Acres: 1586

Acres by Treatment Type

Commercial Harvest - 74	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	48	0	0	0	0	0	48
Jack Pine	26	0	0	0	0	0	26
Total	74	0	0	0	0	0	74

**Table 3 -- Treatments Prescribed
with No Limiting Factor**



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
48	52170048-CC	26.3	42220 - Natural Jack Pine	High Density Pole	72	Harvest	Clearcut	Planted Jack Pine	Cmpt. Review Proposal

Prescription Clearcut and re-plant to Jack Pine.

Specs:

Other

Comments:

Next Steps: Regen survey in 4 years.

74	52170074-CC	47.6	4131 - Aspen, Oak	High Density Log	87	Harvest	Clearcut with Reserves	Aspen, Oak	Cmpt. Review Proposal
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Prescription Clearcut and leave White Pine, White Oak and some Red Oak for retention/mast production. Stay back at least 50 feet from wet areas on the

Specs: north and west side of the stand.

Other

Comments:

Next Steps: Regen survey in 4 years.

**Total Treatment
Acreage Proposed: 73.9**

Table 4 -- Treatments Prescribed with a Limiting Factor



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription Specs:

Other Comment:

Next Steps:

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: 0

Stand	Gaylord Mgt. Unit			5 – Forested Stands		Compartment: 170	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Inventory Method: IFMAP	
1	4110 - Sugar Maple Association	High Density Pole	80.3	85	81-110		This is a hilly stand with several seeps mostly on the west side of the stand. Several vernal ponds are also present.
2	4130 - Aspen	High Density Log	21.5	90	51-80		Wet stand fed by seeps from surrounding hardwood stands. Multiple vernal ponds.
3	4110 - Sugar Maple Association	High Density Log	82.1	90	81-110		This stand was thinned last entry. Some nice regen present. Multiple seeps in this stand flowing into stand aspen stand to the north. Some vernal ponds present.
4	4130 - Aspen	High Density Sapling	31.7	17			Regen looks good.
5	42110 - Planted Red Pine	High Density Pole	24.6	52	111-140		Pine looks good.
8	6120 - Lowland Cedar	High Density Log	121.3	90	200+		Some windthrow. Looks healthy.
9	4130 - Aspen	High Density Pole	36.2	27	1-50		Good looking regen.
12	4112 - Maple, Beech, Cherry Association	High Density Log	85.8	97	81-110		A lot of multiple stems and wolfy trees in the stand. Rolling. RSH nest in southeast corner. Some beech scale present in the north part.
13	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	3.2	7	1-50		
14	6120 - Lowland Cedar	High Density Log	9.3	94	111-140		
15	4130 - Aspen	High Density Pole	6.4	27	1-50		Looks good
18	4191 - Mixed Upland Deciduous with Conifer	High Density Log	200.4	93	51-80		Nice oak/pine stand. Everything looks healthy. Very nice White Pine understory.
19	4319 - Mixed Upland Forest	Medium Density Pole	4.0	85	1-50		Decent White Pine and Red Maple regen. Some elk browse.
21	42110 - Planted Red Pine	High Density Pole	9.2	52	141-170		Looks good. May be ready for harvest next entry.
22	6120 - Lowland Cedar	High Density Pole	35.0	90			Some mortality in cedar & ash. Wind throw present. Will likely convert to Balsam Fir.
23	4310 - Pine, Oak Mix	High Density Sapling	18.4	6			Regen looks great, nice species mix.
24	42290 - Natural Mixed Pine	High Density Log	33.2	81	81-110		Nice stand of natural pine.



Stand	Gaylord Mgt. Unit		5 – Forested Stands			Compartment: 170	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Inventory Method: IFMAP	
25	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	1.8	85			Some elk browse.
26	42140 - Planted Mixed Pine	High Density Sapling	29.2	17	1-50		Planted Jack Pine looks good. White Pine is seeding in as well as some Jack Pine.
27	4113 - R.Maple, Conifer	Low Density Sapling	0.8	7			Not good regen. Some elk browse.
29	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	28.9	85	81-110		Some red and white oak on the ridge in the middle of the stand. No access to most of the stand. Drainage on east side.
30	4122 - Oak, Pine	High Density Log	71.2	94	81-110		Nice oak/pine stand. Good White Pine regen throughout.
31	4191 - Mixed Upland Deciduous with Conifer	Medium Density	6.6	7			Red maple and red oak regen has been feeding elk.
33	4111 - S.Maple, Hard Mast Association	High Density Log	11.3	88	81-110		Decent looking stand.
35	4130 - Aspen	High Density Log	7.1	74	81-110		Nice white pine understory in north part of stand.
36	6132 - Mixed Lowland Forest with Cedar	High Density Pole	8.1	123	51-80		Heavy windthrow in some areas.
40	42110 - Planted Red Pine	High Density Pole	9.2	52	141-170		Decent stems. Some balsam fir in understory.
41	4123 - Red Oak	Medium Density	2.4	7			Heavy elk browse. Good regen.
43	4113 - R.Maple, Conifer	Medium Density	2.4	7			Some elk browse.
44	4119 - Mixed Northern Hardwoods	Low Density Sapling	2.8	7			Poor regen. Elk browse.
45	4110 - Sugar Maple Association	High Density Pole	5.6	66	81-110		Decent stems.
46	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	1.9	7			Elk browse. Not regenerating as well as was expected.
47	4136 - Aspen, Mixed Conifer	High Density Log	13.4	73	51-80		Old aspen. Very nice white pine understory throughout most of the stand. Adjacent to Johnson Creek.
48	42220 - Natural Jack Pine	High Density Pole	26.3	72	51-80		Looks healthy.
49	4310 - Pine, Oak Mix	High Density Log	20.7	72	51-80		



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Gaylord Mgt. Unit

5 – Forested Stands

Compartment: 170
Year of Entry: 2012

Inventory Method: IFMAP

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
50	4199 - Other Mixed Upland Deciduous	High Density Sapling	31.4	Uneven Age	1-50	It looks like oak was left when this stand was harvested a couple entries ago. Regen looks good (oak, maple and aspen).
51	4191 - Mixed Upland Deciduous with Conifer	Medium Density	4.1	7		Heavy elk browse.
52	4191 - Mixed Upland Deciduous with Conifer	Medium Density	1.6	7		Some elk browse.
53	4123 - Red Oak	High Density Log	140.9	93	81-110	Nice mixed oak and pine stand. Good understory of White Pine throughout stand. Stand looks healthy.
54	42290 - Natural Mixed Pine	High Density Log	16.0	66	81-110	
55	4130 - Aspen	High Density Sapling	13.8	17		Good regen.
56	4113 - R.Maple, Conifer	High Density Sapling	3.0	7		Some elk browse. Pine looks good.
58	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	3.4	7	1-50	A lot of elk browse.
59	42120 - Planted Jack Pine	High Density Sapling	25.8	17		Regen looks good.
60	4123 - Red Oak	High Density Log	33.2	65	51-80	Looks healthy. Jack Pine and Red Maple are filling in openings.
61	42210 - Natural Red Pine	High Density Log	10.5	49	141-170	Still room to grow. South end stocking is a little heavier.
62	4130 - Aspen	High Density Pole	16.5	27	51-80	
63	4116 - Mixed N. Hardwood - Aspen	High Density Pole	3.0	75	51-80	
64	4191 - Mixed Upland Deciduous with Conifer	Medium Density	2.0	7		Decent regen. Elk browse.
65	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	21.9	90	141-170	
66	4191 - Mixed Upland Deciduous with Conifer	Medium Density	3.8	7		Elk Browse.
67	42210 - Natural Red Pine	High Density Pole	6.6	49	111-140	
68	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	3.8	7		Heavy elk browse.

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Gaylord Mgt. Unit

5 – Forested Stands

Compartment: 170

Inventory Method: IFMAP

Year of Entry: 2012



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
70	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	3.0	7		Very heavy elk browse.
71	6120 - Lowland Cedar	High Density Log	10.5	96	111-140	
72	4130 - Aspen	High Density Sapling	9.0	16		Nice regen.
73	4112 - Maple, Beech, Cherry Association	Low Density Sapling	1.9	7		Heavy elk browse.
74	4131 - Aspen, Oak	High Density Log	47.6	87	81-110	Nice mixed stand. Good looking White Pine regen throughout stand. Manage for White Pine.



Stand	Cover Type	Acres	Gen Cmts:
6	629 - Mixed non-forested wetland	5.3	Grass and Cattails. A lot of dead cedar and fir.
7	310 - Herbaceous Openland	7.4	
10	330 - Low-Density Trees	27.0	
11	330 - Low-Density Trees	1.1	
16	6239 - Mixed Emergent Wetland	13.0	Some dead cedar and fir, mostly tag alder.
17	330 - Low-Density Trees	4.4	
20	622 - Lowland Shrub	8.4	
28	6239 - Mixed Emergent Wetland	1.6	Old beaver flooding.
32	310 - Herbaceous Openland	12.4	Pipeline ROW
34	310 - Herbaceous Openland	14.7	Old apple orchard. Could use some pruning.
37	330 - Low-Density Trees	6.1	Block road into this stand at Goose Lake Road.
38	310 - Herbaceous Openland	1.4	
39	310 - Herbaceous Openland	9.0	
42	622 - Lowland Shrub	4.0	
57	622 - Lowland Shrub	3.1	Grass/sedge? A lot of standing dead cedar.
69	310 - Herbaceous Openland	1.2	



7 – 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.

Inventory Method: IFMAP

Stand	SCA Type	SCA Name	Acres	Comments
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8 – 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.