



## COMPARTMENT REVIEW PRESENTATION

### *GAYLORD FOREST MANAGEMENT UNIT*

#### COMPARTMENT: 67

**ENTRY YEAR: 2014**

**ACREAGE: 1356**

**COUNTY: Charlevoix**

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**Revision Date:** 04/24/2012

**Stand Examiner:** K. Lentz, J. Wall, L. Merrick

**Legal Description:** T38N R10W Sections 16, 21, 28, & 33

**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:** Soil types are Roscommon Sand and Belding Sandy Loam which are both somewhat poorly drained. Topography is level to gently rolling.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** The compartment consists of a continuous parcel of state ownership 3 ¼ miles long (north-south) with inclusions of private ownership in all sections. Fox Lake to the west of section 28 has been subdivided with private development. Land use includes deer hunting, small game hunting, and snowmobiling.

**Unique, Natural Features:**

**Archeological, Historical, and Cultural Features:** None known.

**Special Management Designations or Considerations:** This compartment is part of the Great Lakes Islands Management Area Plan.

**Watershed and Fisheries Considerations:** Beaver ponds, bogs, marshes and/ or swamps can be found throughout the compartment along with the small brooks that drain them. There does not

appear to be any opportunity for fishing unless perhaps something was planted in the beaver ponds.

**Wildlife Habitat Considerations:** This compartment is on Beaver Island and consists mainly of lowland areas utilized by white-tailed deer and various furbearers. One stand of upland hardwoods is prescribed to provide some structural diversity within the compartment. This compartment contains portions of the Fox Lake Bog and Cranberry Bog. These critical wetland areas should be avoided.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of lacustrine (lake) sand and gravel and coarse-textured glacial till in the southwest. The glacial drift thickness varies between 300 and 400 feet. Beneath the glacial drift are the Devonian Detroit River Group and the Mackinac Breccia. The Detroit River is solution-mined for brine and the Mackinac is used for stone in other areas in the State. The nearest gravel pit is two miles to the east and potential in the compartment is thought to be good, especially to the southwest. Oil and gas potential appears to be limited. Two wells were drilled on the island in 1961 as dry holes. One of the wells was located in Section 27. These wells were “deep” tests, with one reaching Precambrian age rocks. None of the State land is currently leased in the compartment.

**Vehicle Access:** The primary access roads which are county dirt and/or gravel are Hannigan Road, Fox Lake Road, and Middle Perron’s Trail.

**Survey Needs:** None needed at this time.

**Recreational Facilities and Opportunities:** None

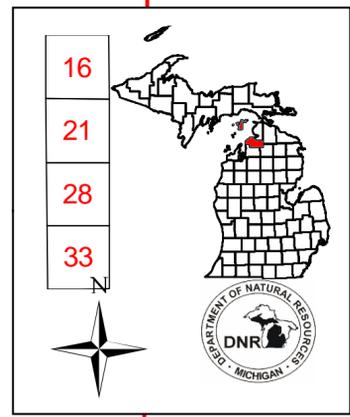
**Fire Protection:** No foreseen problems

**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: 067  
 T38N R10W Sec.16 22 28 33  
 County: Charlevoix  
 Unit: Gaylord  
 YOY: 2014  
 Acres: 1,356 GIS Calculated  
 Examiner: Kim Lentz  
 Map Revised: 05/16/2012  
 Map Phase: Pre-Review



- Legend**
- Miris Corners
  - Gate
  - Berms
  - Pipe
  - Power
  - Railroads
  - Highway
  - County Paved Roads
  - Paved Roads
  - County Gravel Roads
  - Gravel Roads
  - Poor Dirt Roads
  - County Poor Dirt Roads
  - Trail (Non-Recreation)
  - Closed Roads
  - Stream
  - Intermittent Stream
  - Lakes and Rivers
  - Bike Trail
  - Horse Trail
  - Ski Trail
  - Hiking Trail
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
  - Selection (Group, Single Tree)
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 431 - Upland Mixed Forest
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
  - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3
- 330 - Low-Density Trees
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland
  - 629 - Mixed non-forested wetland
  - 790 - Other Bare/Sparsely Vegetated
  - State Forest Land

**Stand #**      **Stocking Density**

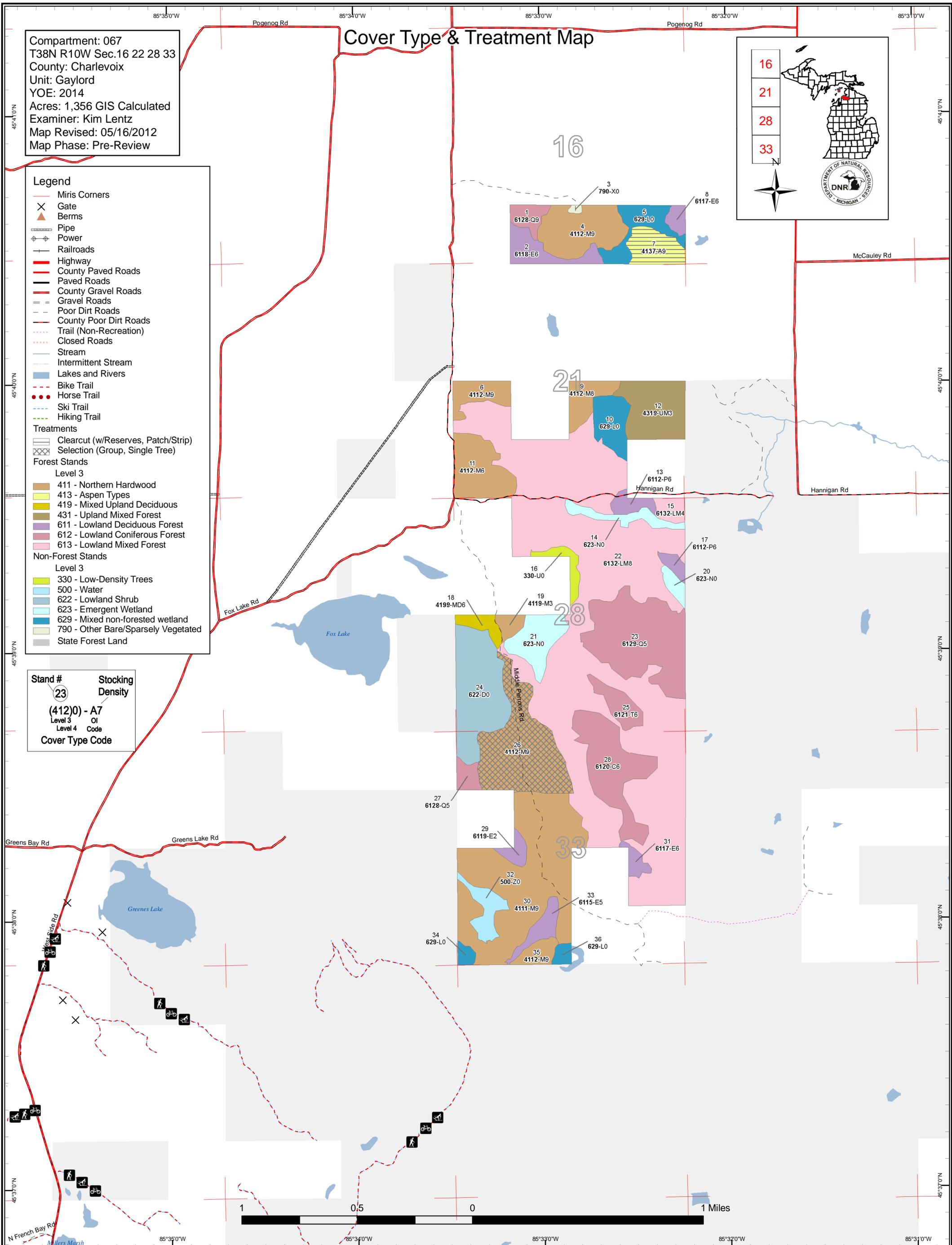
(23)      A7

(4120) - A7

Level 3      OI

Level 4      Code

**Cover Type Code**



# Stand Boundary Map

Compartment: 067  
 T38N R10W Sec.16 22 28 33  
 County: Charlevoix  
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 Map Phase: Pre-Review

### Legend

- Miris Corners
- Remonumented Section Corners
- Gate
- Berms
- Railroads
- Pipe
- Power
- Highway
- County Paved Roads
- Paved Roads
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- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
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- Closed Roads
- Stream
- Intermittent Stream
- Bike Trail
- Horse Trail
- Ski Trail
- Hiking Trail
- Stand Boundaries

### Forest Stands

Level 3

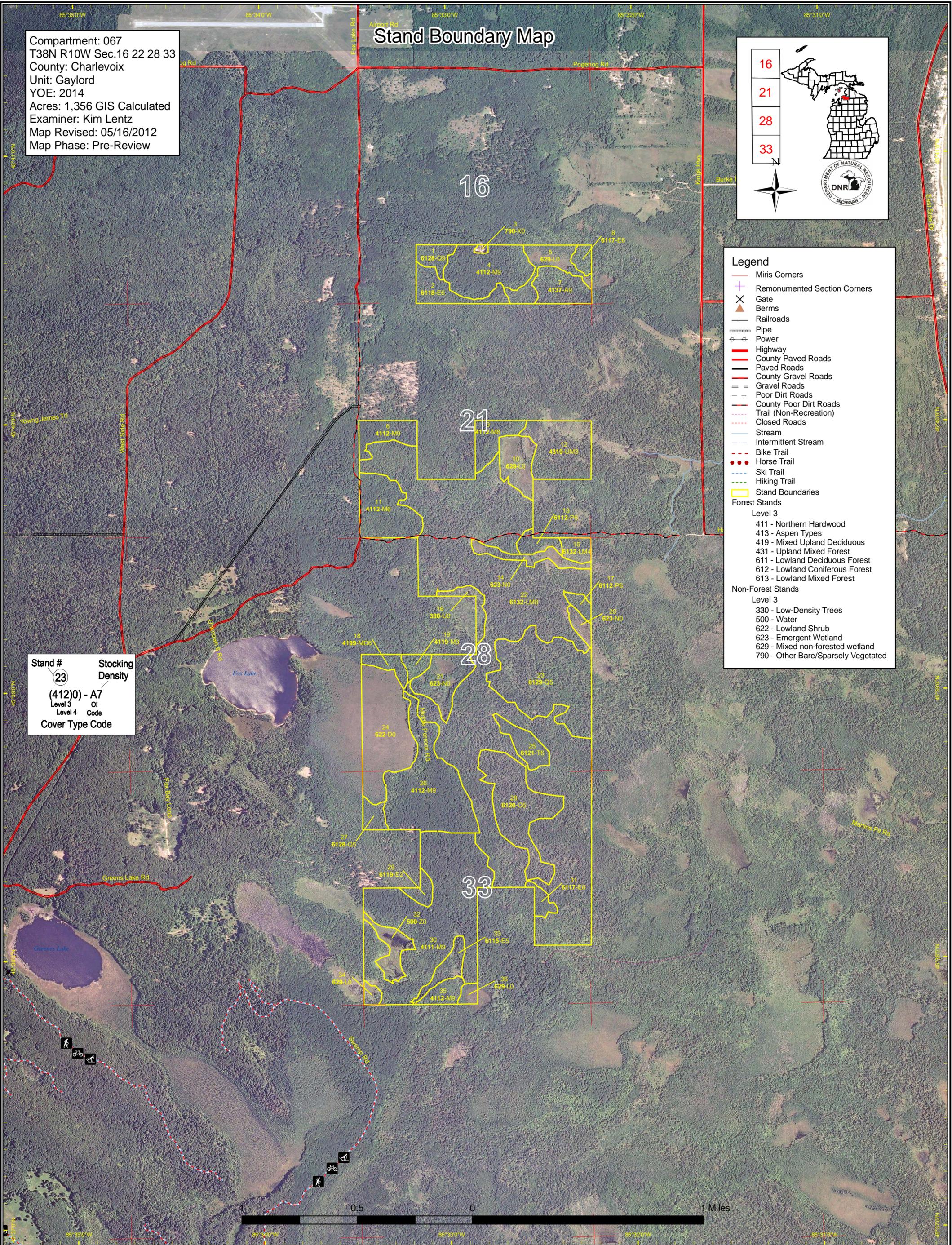
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

### Non-Forest Stands

Level 3

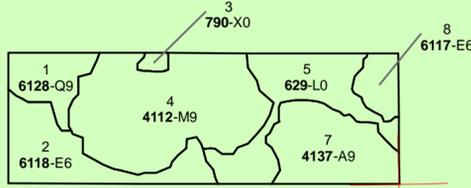
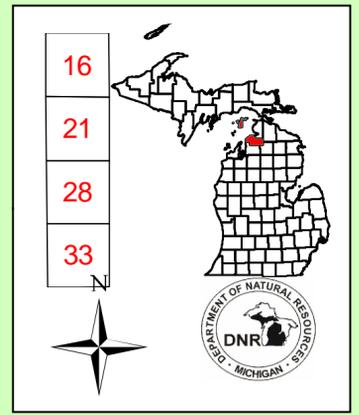
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland
- 790 - Other Bare/Sparsely Vegetated

Stand # **23** Stocking Density  
**(4120) - A7**  
 Level 3 OI  
 Level 4 Code  
 Cover Type Code



# Dedicated & Proposed Special Conservation Area Map

Compartment: 067  
 T38N R10W Sec.16 22 28 33  
 County: Charlevoix  
 Unit: Gaylord  
 YOY: 2014  
 Acres: 1,356 GIS Calculated  
 Examiner: Kim Lentz  
 Map Revised: 05/16/2012  
 Map Phase: Pre-Review



- Legend**
- Miris Corners
  - Stand Boundaries
  - Dedicated Special Conservation Areas**
  - Ecological Reference Areas
  - Great Lakes Islands
  - Forest Stands**
  - Level 3
    - 411 - Northern Hardwood
    - 413 - Aspen Types
    - 419 - Mixed Upland Deciduous
    - 431 - Upland Mixed Forest
    - 611 - Lowland Deciduous Forest
    - 612 - Lowland Coniferous Forest
    - 613 - Lowland Mixed Forest
  - Non-Forest Stands**
  - Level 3
    - 330 - Low-Density Trees
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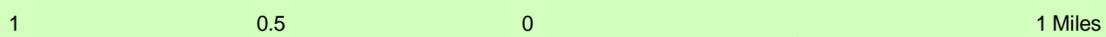
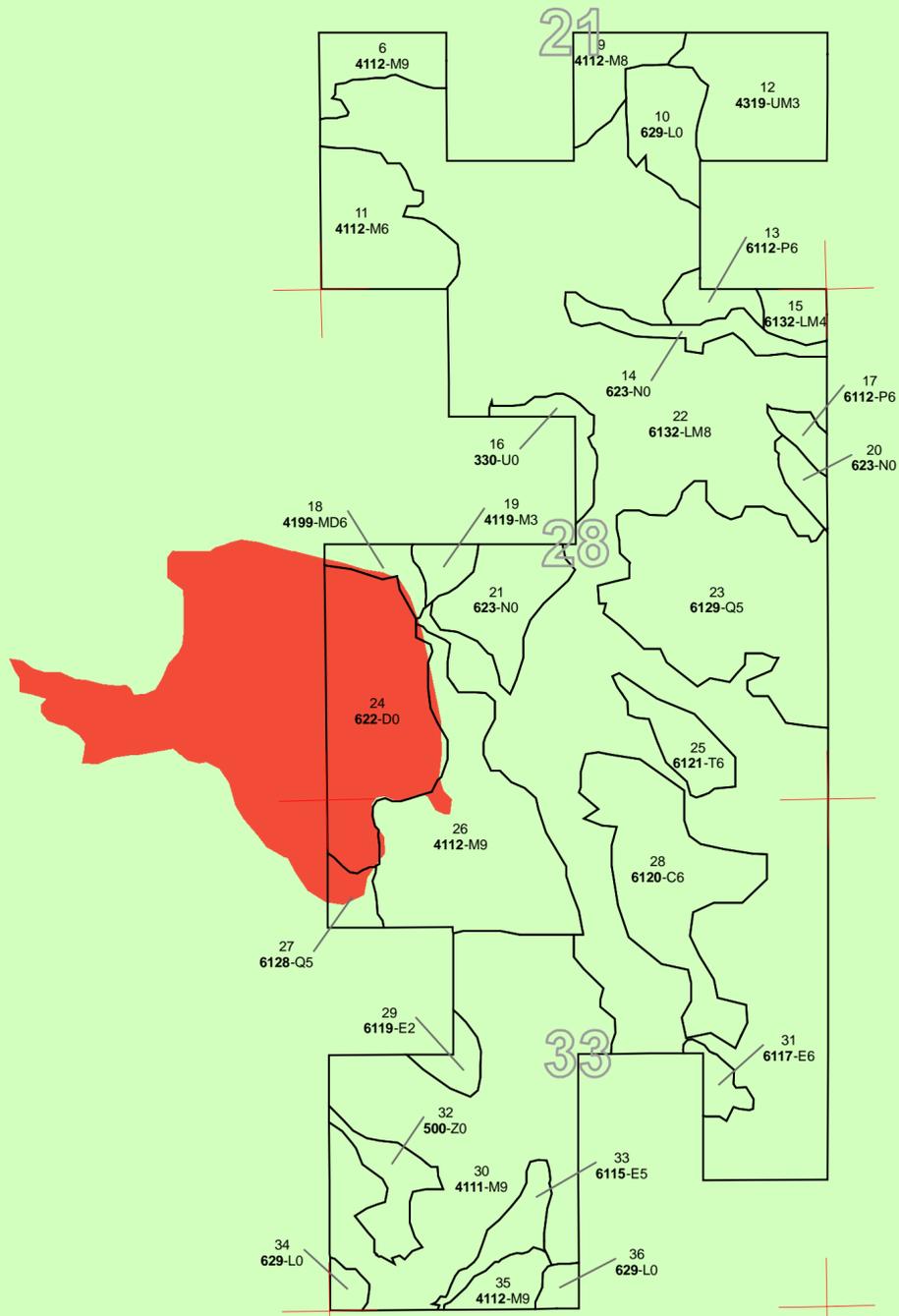
**Stand #**      **Stocking Density**

23      (4120) - A7

Level 3      OI

Level 4      Code

**Cover Type Code**



45°41'0"N

45°40'0"N

45°39'0"N

45°38'0"N

45°37'0"N

85°35'0"W

85°34'0"W

85°33'0"W

85°32'0"W

85°31'0"W

85°35'0"W

85°34'0"W

85°33'0"W

85°32'0"W

85°31'0"W

45°41'0"N

45°40'0"N

45°39'0"N

45°38'0"N

45°37'0"N

**Table 1 – Total Acres by Cover Type and Age Class**

Kimberly Lentz : Examiner



	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	21	0	0	0	0	0	0	0	21
Bare/Sparsely Vegetated	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cedar	0	0	0	0	0	0	0	0	0	57	0	0	0	0	57
Low-Density Trees	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Lowland Aspen/Balsam Poplar	0	0	8	0	0	0	0	0	5	0	0	0	0	0	13
Lowland Conifers	0	0	0	7	0	0	0	0	0	0	0	0	0	98	106
Lowland Deciduous	0	7	0	0	0	0	12	0	12	0	0	0	0	19	50
Lowland Mixed Forest	0	0	0	0	0	0	0	0	499	0	0	0	0	0	499
Lowland Shrub	51	0	0	0	0	0	0	0	0	0	0	0	0	0	51
Marsh	45	0	0	0	0	0	0	0	0	0	0	0	0	0	45
Mixed Upland Deciduous	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9
Northern Hardwood	0	6	0	0	0	38	0	27	0	140	0	0	0	150	361
Tamarack	0	0	0	0	0	0	0	0	15	0	0	0	0	0	15
Treed Bog	65	0	0	0	0	0	0	0	0	0	0	0	0	0	65
Upland Mixed Forest	0	42	0	0	0	0	0	0	0	0	0	0	0	0	42
Water	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
<b>Total</b>	<b>186</b>	<b>56</b>	<b>8</b>	<b>7</b>	<b>9</b>	<b>38</b>	<b>32</b>	<b>27</b>	<b>530</b>	<b>197</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>267</b>	<b>1356</b>



## Table 2 – Proposed Treatment Summaries

**Gaylord Mgt. Unit**  
**Year of Entry 2014**

**Compartment 067**  
**Total Compartment Acres: 1356**

### Acres by Treatment Type

Commercial Harvest - 100	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
<b>Aspen</b>		21	0	0	0	0	0	21
<b>Northern Hardwood</b>		0	79	0	0	0	0	79
<b>Total</b>		21	79	0	0	0	0	100

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



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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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#Error

Prescription  
Specs:

Other  
Comments:

Next  
Steps:

Proposed  
Start Date: #Error

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**Total Treatment  
Acreage Proposed: 0**



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
7	52067007-Cut	20.6	4137 - Aspen, Birch	High Density Log	63	81-110	Harvest	Clearcut	4137 - Aspen, Birch	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Clear cut stand to regenerate aspen and birch leaving pockets of cedar uncut. Private/State Property lines will need to be established and marked. Logging will need to occur during winter months when the ground is frozen.</p> <p><u>Other Comment:</u> Access will be through stand 4. Volume is primarily quaking aspen and white birch pulpwood which might only yield a few hundred cords.</p> <p><u>Next Steps:</u> If harvest is pursued, monitor the success of regeneration of aspen and birch.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p> <p><u>Limiting Factor and No. Treatment Reason</u> 1C: Other dept or div proc/practices No current market for pulpwood species on Beaver Island. Cost to barge pulpwood to market on mainland is cost prohibitive.</p>										
26	52067026-Cut	79.1	4112 - Maple, Beech, Cherry Association	High Density Log	93	111-140	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Mark by single tree selection removing mature, defective, and beech with BBD for salvage. Total average BA is 130sq.ft./ac. Cut an estimated 50sq.ft./ac. with 30BA = Beech Logs &amp; 20 BA = Maple Logs. Note: There is both Sugar Maple &amp; Red Maple in the stand.</p> <p><u>Other Comment:</u> The east and west edges of stand are influenced by adjacent swamp conifer or wetland stands. The species mix therefore changes to primarily red maple, yellow birch with lower density than the main sugar maple stand. This is included for treatment to harvest mature red maple.</p> <p><u>Next Steps:</u> Monitor success of regeneration of maple and beech after the harvest is completed.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p> <p><u>Limiting Factor and No. Treatment Reason</u> 1C: Other dept or div proc/practices Limited factored due to the complexity of logging of Beaver Island which requires barging.</p>										
<b>Total Treatment Acreage Proposed:</b>		<b>99.7</b>								

Out of YOE -- Treatments  
Prescribed with No Limiting Factor

Year of Entry: 2014



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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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Prescription  
Specs:

Other  
Comments:

Next  
Steps:

Proposed  
Start Date: #Error

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**Total Treatment  
Acreage Proposed: 0**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	9.9	Uneven Age	81-110	Nice stand of hemlock logs mixed in with cedar and northern hardwood species. Transitional stand between upland northern hardwoods and swamp conifer. Noted old windthrow and dead slash. Most of old growth yellow birch is dead standing.
2	6118 - Lowland Deciduous with Cedar	High Density Pole	19.4	Uneven Age	51-80	Mix of red maple & hardwood species on the perimeter of stand. Overall, wetland with lowland hardwood & lowly stocked swamp conifer species on wet ground. White Cedar throughout with some hemlock.
4	4112 - Maple, Beech, Cherry Association	High Density Log	44.0	91	81-110	A few nice pockets of sugar maple regen, scattered beech and ironwood, conifer shows up around edges of stand
6	4112 - Maple, Beech, Cherry Association	High Density Log	17.2	95	81-110	Northern hardwood stand with nice sugar maple poles. East half is on wet ground with lower density & red maple and scattered hemlock logs. BBD will reduce stand density.
7	4137 - Aspen, Birch	High Density Log	20.6	63	81-110	This stand consists primarily of aspen pulpwood which is mature. Access may be difficult with an adjacent wetland type.
8	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	5.7	86		Lowland Deciduous with mixed conifer. Remote call due to being inaccessible by water.
9	4112 - Maple, Beech, Cherry Association	Medium Density Log	16.8	75	81-110	Beech Bark disease taking out trees and will continue to. Cut 20-30 years ago, pockets of nice SM and paper birch regen. As Beech continues to fall out of stand the SM understory will respond to the release.
11	4112 - Maple, Beech, Cherry Association	High Density Pole	37.6	57	51-80	nice stand of poles with logs beech bark disease common
12	4319 - Mixed Upland Forest	High Density Sapling	42.3	16	1-50	Young fir/aspen stand with a few residual overstory aspen/cedar. Manage for conifers and aspen
13	6112 - Lowland Aspen	High Density Pole	8.2	28	51-80	Stand had some cutting done in 1985 and 87.
15	6132 - Mixed Lowland Forest with Cedar	Low Density Pole	8.1	85	1-50	Small stand. Tamarack and a couple other misc species present as well.
17	6112 - Lowland Aspen	High Density Pole	5.1	82	51-80	Smaller trees present along the old logging road. Heavy fir understory. Yellow birch and othe misc hdwds also present.
18	4199 - Other Mixed Upland Deciduous	High Density Pole	8.6	46	51-80	let aspen and birch continue to fall out of stand manage for sugar maple, nice poles/future logs
19	4119 - Mixed Northern Hardwoods	High Density Sapling	6.5	16	1-50	Young stand that had been clear-cut and is now heavily stocked to hardwoods



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	6132 - Mixed Lowland Forest with Cedar	Medium Density Log	490.5	85	51-80	Lots of blowdown. Heavy fir understory. Ridges throughout contain a hwd component. Most of overstory Quaking Aspen & Balm-of-Gilead has died out with swamp conifer species, maple, and some cedar regenerating in the understory. Stand density ranges from 30 BA - 110BA depending on pockets of blowdown.
23	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	88.3	Uneven Age	51-80	This stand was cut between 1996 thru 1998 with a selection cut to remove Cedar, Aspen, Mixed Softwood, & White Birch that was 10"dbh & greater. Stand is currently regenerating with a variety of mixed conifer & deciduous species. Balsam fir, cedar, and aspen are predominant.
25	6121 - Tamarack	High Density Pole	14.6	81	51-80	Moderately stocked tamarack stand which has some mortality in it. Dense lowland hardwood an average of 4-5" dbh established in understory along with young balsam fir.
26	4112 - Maple, Beech, Cherry Association	High Density Log	79.1	93	111-140	Fully stocked northern hardwood log stand with mature sugar maple & beech primarily. Beech bark disease prevalent with notable beech snap already throughout stand. Stand density ranges from 110 - 160 sq.ft./ac. with an average of 130sq.ft/ac. basal area. The west & east boundaries have a red maple & yellow birch component with a transition into the adjacent lowland swamp conifer stands or bog. Less than 3% of Ash in stand is dying due to EAB.
27	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	7.4	36	1-50	hydric site, manage for conifer cover
28	6120 - Lowland Cedar	High Density Pole	56.7	95	171-200	Very nice, dense white cedar with some quaking aspen and balm of gilead defective logs. Some areas of blowdown with new balsam fir understory. Density ranges from 120 BA - 200 BA with an average of 150 sq.ft./acre.
29	6119 - Mixed Lowland Deciduous Forest	Medium Density	6.8	19	1-50	large hemlock with fir understory on stand border most of the stand is ash, elm and red maple saps.
30	4111 - S.Maple, Hard Mast Association	High Density Log	149.7	Uneven Age	81-110	This northern hardwood stand was cut approximately 25 yrs. ago. Lots of natural regeneration of beech & sugar maple in understory. Beech bark disease prevalent throughout. Stand east of Middie Perron's has a transition with more red maple & yellow birch adjacent to the swamp conifer stand to the east. Some areas with heavy sugar maple regenerations up to 35' in height. Note: Average density for 17 plots was 95sq.ft./acre with approx. 35% beech with BBD prevalent.
31	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	6.1	86	51-80	Lowland hardwood with black ash & balsam poplar. Balsam fir developing in understory along with black ash.
33	6115 - Lowland Ash	Medium Density Pole	11.6	69	51-80	ash decline due to high water table some beaver damage
35	4112 - Maple, Beech, Cherry Association	High Density Log	9.8	71	81-110	areas of advanced sm regen 800+ trees per acre beech bark disease common with pockets of mortality, trees snapping off sm regen will respond to these new gaps created by loss of beech



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	790 - Other Bare/Sparsely Vegetate	1.2	N/A	Unspecified	Old gravel pit.
5	629 - Mixed non-forested wetland	21.6	No	Unspecified	
10	629 - Mixed non-forested wetland	21.1	No	Unspecified	
14	6233 - Wet Meadow	13.1	No	Unspecified	Majority of stand is covered with sedge. Dead standing timber present.
16	3303 - Mixed Low Density Trees	8.5	N/A	Unspecified	Narrow stand, cedar along edges.
20	6233 - Wet Meadow	6.0	No	Unspecified	wet, old logging road runs along east edge
21	6239 - Mixed Emergent Wetland	26.1	No	Unspecified	No treatment recommended.
24	6224 - Treed Bog	65.3	No	Unspecified	
32	50 - Water	15.0	No	Unspecified	
34	629 - Mixed non-forested wetland	3.9	No	Unspecified	
36	629 - Mixed non-forested wetland	4.2	No	Unspecified	



**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.

Stand	SCA Type	SCA Name	Acres	Comments



## 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
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.
SCA	Great Lakes Islands	Great Lakes Islands provide significant habitat for numerous species, including many rare plants and animals, several of which are endemic or largely restricted to the Great Lakes region. Due to their isolation, islands provide good examples of many Great Lakes-associated natural communities and ecosystems, and thus have potential to provide insights for understanding the consequences of human disturbance on the increasingly fragmented ecosystems of the mainland.