



# Compartment Review Presentation

## Cadillac Forest Management Unit

Compartment 19

Entry Year 2015

Acreage: 2,005

County Lake

Management Area: Lake County Outwash

### Revision Date:

Stand Examiner: Cheryl Nelson

### Legal Description:

T18N, R13W, Sections 1, 2, 11, and 12

### Identified Planning Goals:

Maintain the diversity of cover types and age classes.

### Soil and topography:

Rubicon, Montcalm, Graycalm, Grayling, and Croswell.

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

Private parcels in the northwest, west, and southeast parts of the compartment. Dispose the small private parcel in the SWNW of section 11.

### Unique Natural Features:

Hill's thistle to the west/northwest, south/southwest, and southeast. Karner blue butterfly to the northwest, common loon to the north/northwest, eastern massasauga to the north/northeast, east, and southeast, eastern box turtle to the east/southeast and southwest, spotted turtle to the south, bald eagle to the south, and the great plains spittlebug to the west/southwest. Potential for hill's thistle, rough fescue, alleghany plum, pale agoseris, northern goshawk, red-shouldered hawk, dusted skipper, grizzled skipper and red-legged spittlebug.

### Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

### Special Management Designations or Considerations:

None.

### Watershed and Fisheries Considerations:

There are no Fisheries concerns within this Compartment. (M. Tonello, 9/11/2013).

### Wildlife Habitat Considerations:

This compartment is in the Newaygo Outwash Plain Ecosystem, LTA 2211 in the north half of the compartment and LTA 5111 in the south half of the compartment. Several soil associations occur in LTA 2211. Soils in LTA 5111 are associations of Rubicon-Grayling, Grayling-Graycalm, or Plainfield sands, all of which are excessively drained, deep sands. Historically, red pine/white pine, jack pine, or red pine/jack pine dominated the area. These forests were likely influenced by fire which spread from adjacent outwash plains. Wildlife objectives are to maintain the diversity of cover types and age classes, encourage coniferous cover types, and promote barrens where possible. Featured species of special interest are marten, pileated woodpecker, red-headed woodpecker, deer and turkey. (E. Victory, 8/21/13)

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

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and an end moraine of coarse-textured till. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift are the Mississippian Michigan Formation and Bayport Limestone. The Michigan is quarried for gypsum and the Bayport for limestone in other areas of the State. Gravel pits are located in the Compartment and potential is considered good especially the upland areas. The nearest production is at Peacock Field three located miles to the northwest. Peacock Field has produced over 1.6 million BO from the Devonian Traverse Limestone. The compartment is not leased for oil and gas. (T. Hoane, 3/6/2013).

### Vehicle Access:

A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR. Also indicated are forest roads and trails under the jurisdiction of the

DNR that are proposed for closure. These roads were determined to be in excess of the access needs in the area, are a threat to the resources, or are a concern environmentally.

### **Survey Needs:**

Corners needed for Section 11, SWNE and Section 12, SWNW.

### **Recreational Facilities and Opportunities:**

Motorized recreational facilities within this compartment include: a dual use portion of snowmobile trail #344E & 344W, which is also known as the Little Manistee route during non-winter use and the Little Manistee ORV Motorcycle Trail-which is under Directors Order for motorcycle use only, and therefore should be kept narrow. A recently upgraded ORV parking lot is located on 16th St.

"Leave trees" or unmerchantable vegetation should be left adjacent to the Little Manistee motorcycle trail where practical to deter illegal use by larger ORV's such as quads. Those trees harvested directly adjacent to the motorcycle trail should be cut flush to reduce hazard stumps that are often hidden by ferns. Proposed timber management activities along all trails should include trail protection specifications to reduce impacts, as well as serve as an example of how sound timber harvesting methods can co-exist, and often improve recreation and wildlife experiences for future generations. (T.M.N. 7-3-13)

### **Fire Protection:**

County roads and M-37 state Highway provide good access to the compartment. Recreational use in the compartment would be a concern of an ignition of a wildfire. Several private holdings could be a protection issue. This compartment is close to the Baldwin Field Office which will make for a rapid fire suppression response. (B. Tower 2013).

### **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**

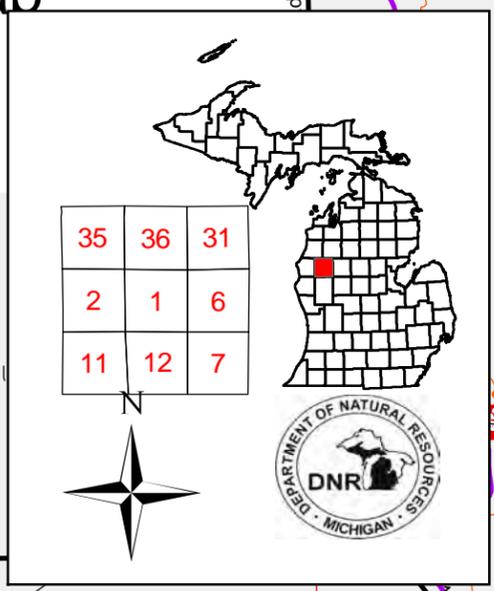
The following information is displayed, where pertinent, on the attached compartment maps:

- 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: 019  
 T18N R12W  
 06 07  
 T18N R13W  
 01 02 11 12  
 T19N R12W  
 31  
 T19N R13W  
 35 36  
 County: Lake  
 Unit: Cadillac  
 YOE: 2015  
 Acres: 2,005 GIS Calculated  
 Examiner: Cheryl Nelson  
 Map Revised: 10/02/2013  
 Map Phase: Pre-Review

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



**Legend**

- Miris Corners
- Re monumented Section Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Motorcycle Trails (DNR License)
- Snowmobile Trails
- Motorcycle (DNR Sticker)
- Snowmobile Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

**Treatments**

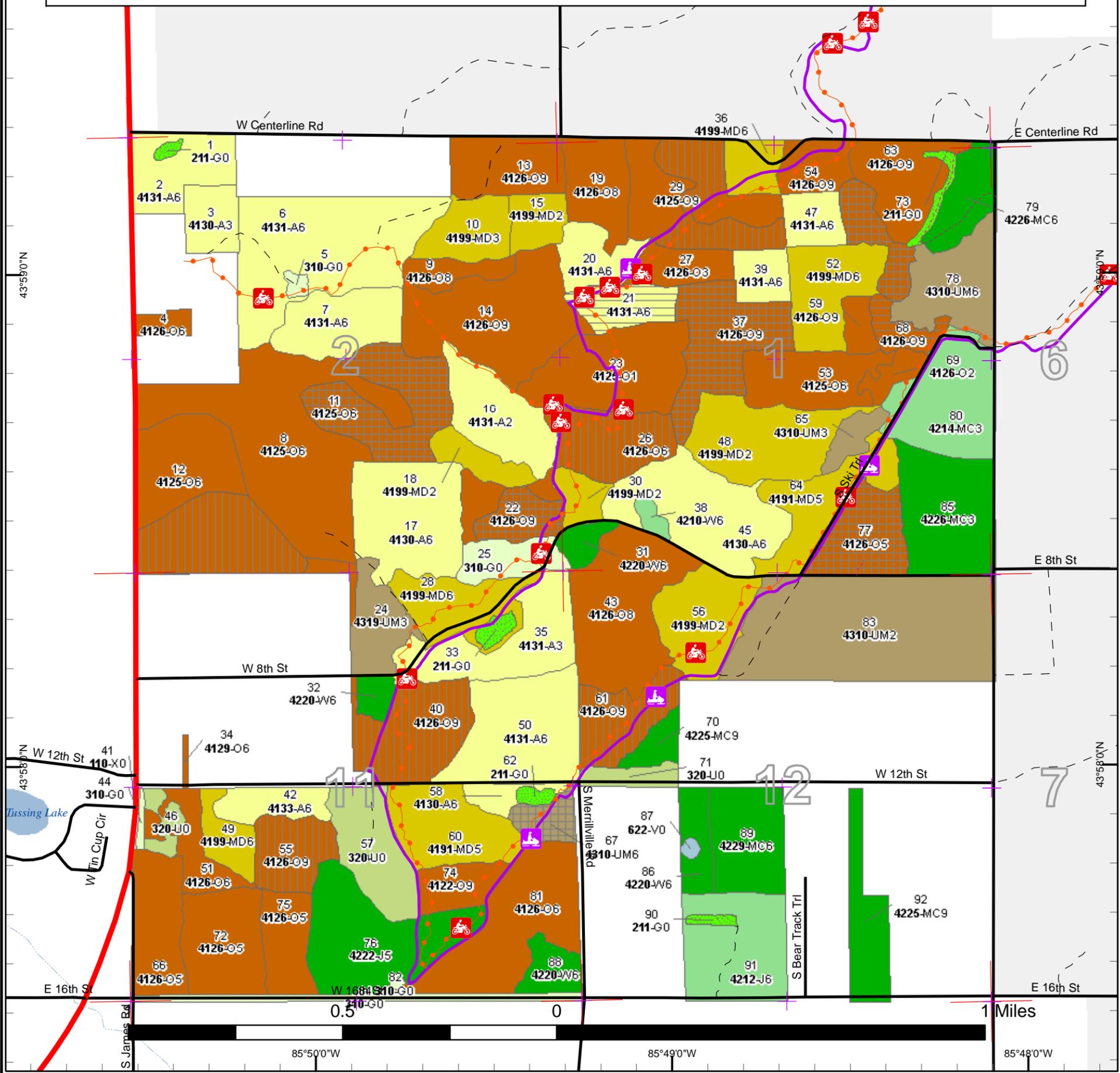
- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Shelter Wood (w/Reserves)
- Mowing

**Forest Stands Level 3**

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest

**Non-Forest Stands Level 3**

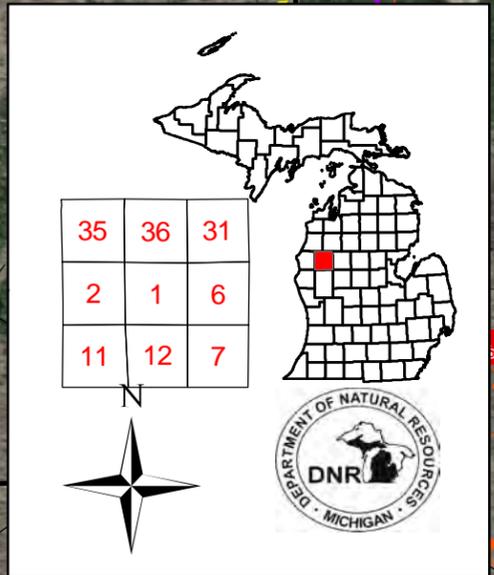
- 110 - Low Intensity Urban
- 211 - Cropland
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 622 - Lowland Shrub



# Stand Boundary Map

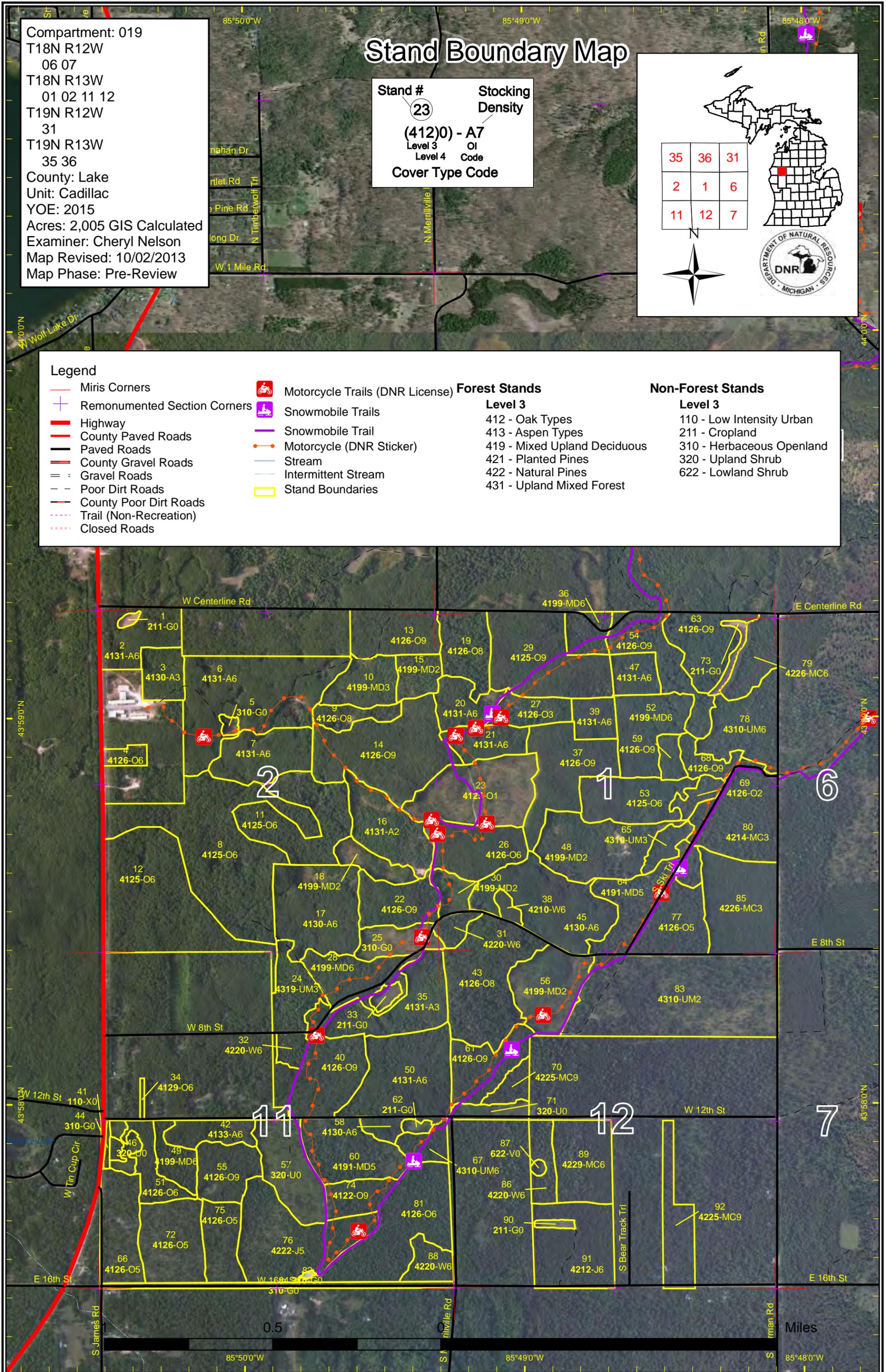
Compartment: 019  
 T18N R12W  
 06 07  
 T18N R13W  
 01 02 11 12  
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 35 36  
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**Stand #**  
 23  
**Stocking Density**  
 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**



## Legend

- |  |  |   |   |
|--|--|---|---|
| <ul style="list-style-type: none"> <li> Miris Corners</li> <li> Remonumented Section Corners</li> <li> Highway</li> <li> County Paved Roads</li> <li> Paved Roads</li> <li> County Gravel Roads</li> <li> Gravel Roads</li> <li> Poor Dirt Roads</li> <li> County Poor Dirt Roads</li> <li> Trail (Non-Recreation)</li> <li> Closed Roads</li> </ul> | <ul style="list-style-type: none"> <li> Motorcycle Trails (DNR License)</li> <li> Snowmobile Trails</li> <li> Snowmobile Trail</li> <li> Motorcycle (DNR Sticker)</li> <li> Stream</li> <li> Intermittent Stream</li> <li> Stand Boundaries</li> </ul> | <b>Forest Stands</b><br><b>Level 3</b><br>412 - Oak Types<br>413 - Aspen Types<br>419 - Mixed Upland Deciduous<br>421 - Planted Pines<br>422 - Natural Pines<br>431 - Upland Mixed Forest | <b>Non-Forest Stands</b><br><b>Level 3</b><br>110 - Low Intensity Urban<br>211 - Cropland<br>310 - Herbaceous Openland<br>320 - Upland Shrub<br>622 - Lowland Shrub |
|--|--|---|---|



Compartment: 019  
 T18N R12W  
 06 07  
 T18N R13W  
 01 02 11 12  
 T19N R12W  
 31  
 T19N R13W  
 35 36  
 County: Lake  
 Unit: Cadillac  
 YOE: 2015  
 Acres: 2,005 GIS Calculated  
 Examiner: Cheryl Nelson  
 Map Revised: 10/02/2013  
 Map Phase: Pre-Review

# Special Conservation Areas & Site Conditions Map

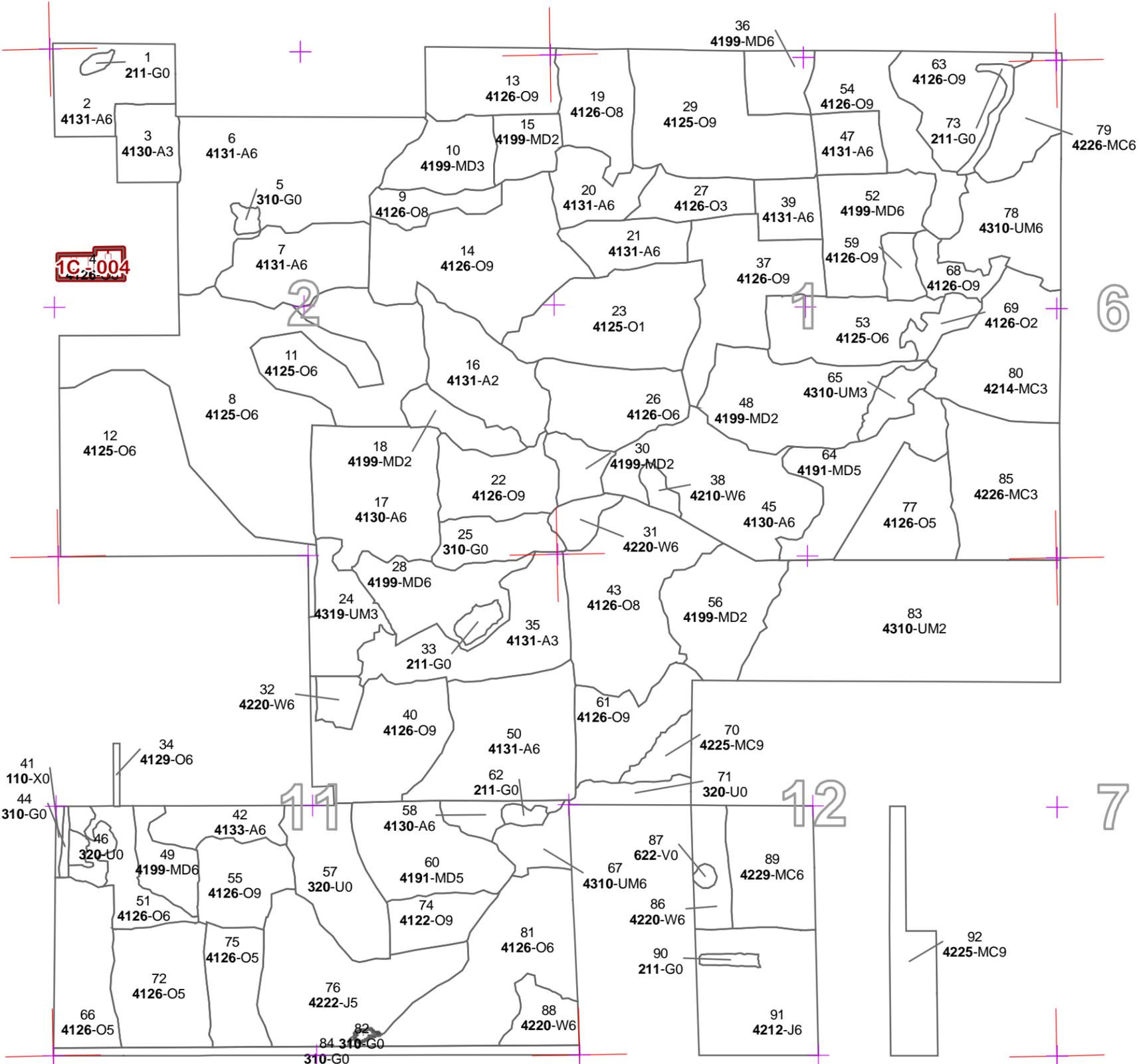
Stand # **23**      Stocking Density  
**(412)0 - A7**  
 Level 3      OI  
 Level 4      Code  
 Cover Type Code

35	36	31
2	1	6
11	12	7



**Legend**

- Miris Corners
- Stand Boundaries
- Site Condition Type
- Unavailable Factors
- 1C: Other dept or div proc/practices
- Unavailable (Factor - Number)
- Reviewable SCAs
- Proposed SCA
- SCA Removal



1      0.5      0      1 Miles

44°00'0"N  
43°59'0"N  
43°58'0"N

85°50'0"W      85°49'0"W      85°48'0"W

31

6

12

7

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	62	189	79	57	0	0	0	0	0	0	0	0	0	387
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cropland	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Herbaceous Openland	29	0	0	0	0	0	0	0	0	0	0	0	0	0	29
Jack Pine	0	46	0	0	37	0	0	0	0	0	0	0	0	0	83
Mixed Upland Deciduous	47	65	21	54	30	0	0	24	0	0	0	0	0	0	240
Natural Mixed Pines	0	40	27	16	0	0	20	7	0	0	0	0	0	0	110
Oak	40	12	0	32	0	0	0	132	30	301	327	0	0	0	876
Planted Mixed Pines	0	0	38	0	0	0	0	0	0	0	0	0	0	0	38
Upland Mixed Forest	0	99	0	29	17	0	9	0	0	0	0	0	0	0	155
Upland Shrub	39	0	0	0	0	0	0	0	0	0	0	0	0	0	39
Urban	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
White Pine	0	0	0	9	10	15	0	0	0	0	0	0	0	0	34
<b>Total</b>	<b>169</b>	<b>324</b>	<b>275</b>	<b>219</b>	<b>152</b>	<b>15</b>	<b>29</b>	<b>163</b>	<b>30</b>	<b>301</b>	<b>327</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2005</b>



## Report 2 – Proposed Treatment Summaries

**Cadillac Mgt. Unit**  
**Year of Entry 2015**

**Compartment 019**  
**Total Compartment Acres: 2,005**

### Acres by Treatment Type

Commercial Harvest - 314	Tree Planting - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 11	

### 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>	14	0	0	0	0	0	14
<b>Oak Types</b>	8	0	122	160	0	0	291
<b>Upland Mixed Forest</b>	0	0	9	0	0	0	9
<b>Total</b>	<b>23</b>	<b>0</b>	<b>131</b>	<b>160</b>	<b>0</b>	<b>0</b>	<b>314</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
11	63019011-Cut	37.3	4125 - Black, N. Pin Oak	High Density Pole	105	81-110	Harvest	Seed Tree with Reserves	412 - Oak	Cmpt. Review Proposal

Prescription Cut all species. Mark a mix of species to retain averaging 20-30 basal area. BA's may be higher in areas of good quality oak. Retention in the form of patches. Use grouse spec. in timber sale.

Other Lower quality oak than stand to the west.  
Comments:

Next  
Steps:

Proposed  
Start Date: 10/01/2014

12	63019012-Cut	35.8	4125 - Black, N. Pin Oak	High Density Pole	105	81-110	Harvest	Shelterwood	412 - Oak	Cmpt. Review Proposal
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Prescription Cut all aspen. Mark a mix of species to retain averaging 50-60 basal area. Basal area will be difficult to retain in areas of low quality. Retention in the form of pockets. Private land to the south. Block illegal two-track from private land with timber sale. Use grouse spec. in timber sale.

Other Stand has a mix of black oak and northern red oak. Varying densities and quality.  
Comments:

Next  
Steps:

Proposed  
Start Date: 10/01/2014

21	63019021-Cut	14.3	4131 - Aspen, Oak	High Density Pole	48	1-50	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
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Prescription Final harvest. Focus retention along ORV Route and Trail. Use grouse spec. and ORV Route and Trail protection spec in timber sale.

Other  
Comments:

Next  
Steps:

Proposed  
Start Date: 10/01/2014

22	63019022-Cut	12.3	4126 - White, Black, N. Pin Oak	High Density Log	100	111-140	Harvest	Seed Tree with Reserves	412 - Oak	Cmpt. Review Proposal
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Prescription Cut all aspen. Mark a mix of species to retain averaging 20-30 basal area. Retention in the form of pockets, marked trees to leave along the ORV Route, and not treating the portion east of the ORV Route. Use grouse spec. in timber sale.

Other  
Comments:

Next  
Steps:

Proposed  
Start Date: 10/01/2014



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
26	63019026-Cut	26.0	4126 - White, Black, N. Pin Oak	High Density Pole	105	81-110	Harvest	Shelterwood	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Expand aspen zones. Mark a mix of species to leave averaging 50-60 basal area. Focus retention along and between ORV Route and Trail. Do <u>Specs:</u> not cut any regen 4.5" DBH and smaller. Use grouse spec. and ORV Route and Trail protection spec. in timber sale.</p> <p><u>Other</u> Pine heavier to the southwest. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										
29	63019029-Cut	24.0	4125 - Black, N. Pin Oak	High Density Log	95	81-110	Harvest	Shelter Wood with Reserves	4129 - Mixed Oak	Cmpt. Review Proposal
<p><u>Prescription</u> Cut all aspen. Mark a mix of species to retain averaging 40-50 BA. BA can be slightly higher in higher quality pockets of oak. Focus retention <u>Specs:</u> along ORV Route and Trail. Use grouse spec. and ORV protection spec. in timber sale.</p> <p><u>Other</u> Low to moderate amount of decline in oak. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										
37	63019037-Cut	35.0	4126 - White, Black, N. Pin Oak	High Density Log	100	111-140	Harvest	Seed Tree with Reserves	4121 - Oak, Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Cut all aspen. Mark a mix of species to retain averaging 23-30 basal area. BA's may be higher in higher quality areas. Mark heavier along ridge <u>Specs:</u> tops. Retention in the form of patches. Use grouse spec. in timber sale.</p> <p><u>Other</u> Pockets of aspen to northwest and east in stand. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										
40	63019040-Cut	33.9	4126 - White, Black, N. Pin Oak	High Density Log	95	81-110	Harvest	Shelterwood	4122 - Oak, Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Cut all aspen. Mark to a mix of species to retain averaging 30-40 basal area. Retain heavy component of white oak. Basal Area may be higher <u>Specs:</u> in areas of higher quality oak. Focus retention along and between ORV Route and Trail. Use grouse spec. and ORV Route and Trail protection spec. in timber sale.</p> <p><u>Other</u> Stand has heavy white oak component than surrounding stands. Maintain heavy component for species diversity in area. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										
54	63019054-Cut	13.5	4126 - White, Black, N. Pin Oak	High Density Log	95	51-80	Harvest	Seed Tree with Reserves	412 - Oak	Cmpt. Review Proposal
<p><u>Prescription</u> Cut all aspen. Mark a mix of species to retain averaging 30-40 basal area where possible. Overall BA may be lower in areas of decline. Focus <u>Specs:</u> retention along ORV Route and Trail.</p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
55	63019055-Cut	18.8	4126 - White, Black, N. Pin Oak	High Density Log	90	81-110	Harvest	Shelterwood	4122 - Oak, Pine	Cmpt. Review Proposal
<u>Prescription</u> Cut all aspen. Mark a mix of species to retain averaging 30-40 basal area. Remove suppressed oak and leaving larger diameter oak for mast/seed source. Focus retention around bog. Use grouse spec. in timber sale.										
<u>Specs:</u>										
<u>Other</u> Higher quality stand than surrounding areas. Smaller diameter oaks are suppressed.										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
61	63019061-Cut	21.8	4126 - White, Black, N. Pin Oak	High Density Log	80	81-110	Harvest	Shelterwood	4121 - Oak, Aspen	Cmpt. Review Proposal
<u>Prescription</u> Expand aspen pockets. Mark a mix of species to retain averaging 40-50 basal area. Do not cut regen 4.5" DBH and smaller. Focus retention along and between ORV Route and Trail. Use grouse spec. in timber sale.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
67	63019067-Cut	9.0	4310 - Pine, Oak Mix	High Density Pole	68	81-110	Harvest	Seed Tree with Reserves	4310 - Pine, Oak Mix	Cmpt. Review Proposal
<u>Prescription</u> Cut all jack pine. Mark a mix of species to retain averaging 20-30 basal area where possible. Declining oak may leave the overall basal area heavier to 20 BA. Focus retention along and between ORV Route and Trail.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Plant to jack pine if regeneration fails.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
68	63019068-Cut	8.2	4126 - White, Black, N. Pin Oak	High Density Log	88	51-80	Harvest	Clearcut	4122 - Oak, Pine	Cmpt. Review Proposal
<u>Prescription</u> Final Harvest. Do not cut regen 4.5" DBH and under. No retention due to small stand size. Use ORV Route and Trail protection spec. in timber sale.										
<u>Specs:</u>										
<u>Other</u> Stand in decline.										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
77	63019077-Cut	24.1	4126 - White, Black, N. Pin Oak	Medium Density Pole	92	51-80	Harvest	Seed Tree with Reserves	412 - Oak	Cmpt. Review Proposal
<u>Prescription</u> Mark a mix of species to retain averaging 20-30 basal area. Do not cut regen 4.5" and smaller. Focus retention along ORV Route. Use grouse spec. and ORV Route and Trail protection spec. in timber sale.										
<u>Specs:</u>										
<u>Other</u> Large amount of stunted understory oak.										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	NF_63019001- NonFor	1.2	2113 - Forage Crops				Non-Forest Management	Mowing	31021 - Cool Season Grass	Cmpt. Review Proposal
<u>Prescription</u> Opening maintenance including disking, seeding, mowing and fertilizing										
<u>Specs:</u>										
<u>Other</u> <u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> Unspecified										
33	NF_63019033- NonFor	3.0	2113 - Forage Crops				Non-Forest Management	Mowing	31021 - Cool Season Grass	Cmpt. Review Proposal
<u>Prescription</u> Opening maintenance including disking, seeding, mowing and fertilizing										
<u>Specs:</u>										
<u>Other</u> <u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> Unspecified										
62	NF_63019062- NonFor	2.1	2113 - Forage Crops				Non-Forest Management	Mowing	31021 - Cool Season Grass	Cmpt. Review Proposal
<u>Prescription</u> Opening maintenance including disking, seeding, mowing and fertilizing										
<u>Specs:</u>										
<u>Other</u> <u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> Unspecified										
73	NF_63019073- NonFor	3.4	2113 - Forage Crops				Non-Forest Management	Mowing	31021 - Cool Season Grass	Cmpt. Review Proposal
<u>Prescription</u> Opening maintenance including disking, seeding, mowing and fertilizing										
<u>Specs:</u>										
<u>Other</u> <u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> Unspecified										
90	NF_63019090- NonFor	1.8	2113 - Forage Crops				Non-Forest Management	Mowing	31021 - Cool Season Grass	Cmpt. Review Proposal
<u>Prescription</u> Opening maintenance including disking, seeding, mowing and fertilizing										
<u>Specs:</u>										
<u>Other</u> <u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> Unspecified										



S  
t  
a  
n  
d

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
Total Treatment Acreage Proposed:		325.4							



S  
t  
a  
n  
d

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

Cadillac Mgt. Unit  
Cheryl Nelson : Examiner

Compartment 019  
Year of Entry 2015

### Availability for Management

Total Acres			Dominant Site Conditions		
Acres	Available	Not Available	No	1C	
387	387		<b>Aspen</b>	387	
83	83		<b>Jack Pine</b>	83	
240	240		<b>Mixed Upland Deciduous</b>	240	
110	110		<b>Natural Mixed Pines</b>	110	
876	871	5	<b>Oak</b>	871	5
38	38		<b>Planted Mixed Pines</b>	38	
154	154		<b>Upland Mixed Forest</b>	154	
34	34		<b>White Pine</b>	34	
1,923	1,918	5	Total Forested Acres	1,918	5
	100%	0%	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
004	Not Available	1C: Other dept or div proc/practices	5				
<b>Comments:</b> Stand up for disposal.							



**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>Little Manistee Motorcycle Trail and Route</b>  <b>Comments</b>	Concentrated Recreation Area	Trail Head	SCA	



**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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4131 - Aspen, Oak	High Density Pole	22.7	42	1-50	FTP # G-128. Treated residual from commercial clearcut: "This is a commercial cut over area which will be managed for aspen & oak. Therefore, all red maple and oak left should be cut." Timber sale paperwork could not be found. Treated in 1971.  to remove all red maple and oak that were left after harvest completed in 1971.
3	4130 - Aspen	High Density Sapling	12.6	20		Stand treated in timber sale approximately 20 years ago. Paperwork could not be found.
4	4126 - White, Black, N. Pin Oak	High Density Pole	4.6	95	51-80	Stand up for disposal. Emergency towers on site.
6	4131 - Aspen, Oak	High Density Pole	67.2	37	1-50	FTP # W-264, II-36. Treat residual from commercial clearcut: "Fell all aspen, red maple, and oak trees to improve aspen and deer habitat". Timber sale paperwork could not be found. Treated in 1976.
7	4131 - Aspen, Oak	High Density Pole	25.5	28	51-80	Stand was treated around 1986 due to age. Timber sale paperwork could not be found.
8	4125 - Black, N. Pin Oak	High Density Pole	85.3	105	111-140	Higher quality than surrounding stands. Stand in good condition.
9	4126 - White, Black, N. Pin Oak	Medium Density Log	9.1	90	1-50	Do not treat this entry period. Keep stand for age class and species diversity.
10	4199 - Other Mixed Upland Deciduous	High Density Sapling	17.3	16		Stand treated timber sale #63-020-95-01, "Centerline Oak". Cut in 1997. Green marked oak were left. Heavier oak component to east of stand.
11	4125 - Black, N. Pin Oak	High Density Pole	37.3	105	81-110	Lower quality black and red oak mix. White pine heavier to north of stand.
12	4125 - Black, N. Pin Oak	High Density Pole	69.6	105	81-110	Southwest portion of stand looks as though it was treated in the past when it was privately owned. Moderate amount of red maple clumps and aspen pole pockets mixed with oak. Area of possible past treatment is not large enough to make into an individual stand.
13	4126 - White, Black, N. Pin Oak	High Density Log	23.3	95	81-110	Do not treat this entry period. Keep for age class and species diversity. Pocket of white pine pulp/small logs in northeast part of stand.
14	4126 - White, Black, N. Pin Oak	High Density Log	53.4	105	81-110	Medium to high quality oak stand. Do not treat stand this entry. Save for age class and species diversity.
15	4199 - Other Mixed Upland Deciduous	Medium Density	10.4	13		Stand treated approximately 13 years ago however, paperwork could not be found. Overstory small to medium pole sized oak and red maple.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	4131 - Aspen, Oak	Medium Density	27.5	17		Stand treated timber sale #63-006-95-01, "Service Trail Oak". 1996. Good oak seedling & sapling regeneration.
17	4130 - Aspen	High Density Pole	41.9	28	1-50	Stand treated timber sale 63-007-85-01.
18	4199 - Other Mixed Upland Deciduous	Medium Density	10.1	6		Stand treated timber sale #63-009-05-01, "Nuts & Trails". Cut 2007.
19	4126 - White, Black, N. Pin Oak	Medium Density Log	20.5	98	1-50	Stand treated timber sale #63-020-95-01, Centerline Oak. All species cut except for trees 10" DBH and larger. Occasional white and red pine pulp to log trees. Good oak regen in the form of stump sprouts and single stem.
20	4131 - Aspen, Oak	High Density Pole	14.4	48	51-80	Stand treated but paperwork could not be found. Cut over aspen and red maple with overstory oak. Grassy opening in northeast portion of stand.
21	4131 - Aspen, Oak	High Density Pole	14.3	48	1-50	Stand treated 1965.
22	4126 - White, Black, N. Pin Oak	High Density Log	20.8	100	111-140	
23	4125 - Black, N. Pin Oak	Low Density Sapling	40.4	6		Stand treated timber sale #63-009-05-01, "Nuts & Trails". Cut in 2007. Oak stump sprouts and single stem saplings. Red maple stump sprouts and single stem saplings.
24	4319 - Mixed Upland Forest	High Density Sapling	17.5	42	1-50	Stand treated timber sale #63-014-97-01, "Over the hill again". Few jack pine and red pine in stand.
26	4126 - White, Black, N. Pin Oak	High Density Pole	26.0	105	81-110	Medium quality northern red oak/black oak stand with low quality black oak in patches. Pockets of varying diameters/quality of oak.
27	4126 - White, Black, N. Pin Oak	High Density Sapling	12.3	17		Stand treated timber sale #63-020-95-01, Centerline Oak. Beginning to enter pulp stage.
28	4199 - Other Mixed Upland Deciduous	High Density Pole	23.5	75	111-140	Areas of aspen and red maple pockets especially in center of stand.
29	4125 - Black, N. Pin Oak	High Density Log	47.6	95	81-110	Stand is a mix of species, quality, and diameters. Treat lower quality areas.
30	4199 - Other Mixed Upland Deciduous	Medium Density	7.9	6		Stand treated timber sale #63-009-05-01, "Nuts & Trails". Cut in 2007. Scattered mature oak.
31	42200 - Natural White Pine	High Density Pole	5.9	38	51-80	Stand treated timber sale #63-029-85-02. Overstory oak removal.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	42200 - Natural White Pine	High Density Pole	5.3	55	51-80	Stand treated timber sale #63-010-89-02. Overstory removal of hardwoods to release white pine understory.
34	4129 - Mixed Oak	High Density Pole	1.0	90		Dispose.
35	4131 - Aspen, Oak	High Density Sapling	34.1	15		Stand treated timber sale #63-014-97-01, Over the Hill Again.
36	4199 - Other Mixed Upland Deciduous	High Density Pole	10.6	27	1-50	Stand treated timber sale #63-001-85-01, "Checkerboard". ORV Route and Trail through stand.
37	4126 - White, Black, N. Pin Oak	High Density Log	35.0	100	111-140	Lower quality oak overall with scattered northern red oak especially to west. Pocket of mature aspen in northwest corner. Few scattered northern red oak. 6" black oak = 68 rings.
38	42100 - Planted White Pine	High Density Pole	3.1	35	1-50	Planted per FTP #179 in approximately 1997. Trenched and hand planted.
39	4131 - Aspen, Oak	High Density Pole	10.0	28	1-50	Stand treated timber sale #63-001-85-01, "Checkerboard".
40	4126 - White, Black, N. Pin Oak	High Density Log	33.9	95	81-110	Aspen pockets heavy to northeast and along northern edge. Poorer quality oak.
42	4133 - Aspen, Mixed Pine	High Density Pole	12.0	39	1-50	Treat residual from commercial clearcut: "Cut all residual to improve aspen conversion and deer habitat." Timber sale paperwork could not be found. Treated in 1974.
43	4126 - White, Black, N. Pin Oak	Medium Density Log	49.3	95	1-50	Stand treated timber sale #63-014-97-01, "Over the Hill Again". Residual oak and red maple left.
45	4130 - Aspen	High Density Pole	44.1	28	1-50	Stand treated timber sale #63-002-85-01, "Webber 8th & 12th St."
47	4131 - Aspen, Oak	High Density Pole	10.9	27	1-50	Stand treated timber sale #63-001-85-01, "Checkerboard".
48	4199 - Other Mixed Upland Deciduous	Medium Density	37.3	16		Stand treated timber sale #63-004-95-01, "8th Street Pine and Hdwd".
49	4199 - Other Mixed Upland Deciduous	High Density Pole	10.6	28	1-50	Stand treated timber sale #63-006-88-01" (no sale name).
50	4131 - Aspen, Oak	High Density Pole	44.1	27	1-50	Small pole stand. Diameters vary throughout.
51	4126 - White, Black, N. Pin Oak	High Density Pole	14.5	73	111-140	
52	4199 - Other Mixed Upland Deciduous	High Density Pole	26.6	35	1-50	Stand treated timber sale # 3-76A II-35. Cut in 1978.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
53	4125 - Black, N. Pin Oak	High Density Pole	25.9	37	1-50	Stand treated timber sale Permit # 3-76A, II-35. Treated 1976 with stand to the east. FTP# W63-287, Removed scattered aspen and red maple left over from timber sale.
54	4126 - White, Black, N. Pin Oak	High Density Log	26.2	95	51-80	Stand treated timber sale #63-019-95-01, "Autumn Olive Oak". All trees were cut except oak 10" DBH and larger. Stand is lower quality than stand to the east. Dieback occurring. Little Manistee Route and Cycle Trail run through stand.
55	4126 - White, Black, N. Pin Oak	High Density Log	18.8	90	81-110	Suppressed 4" DBH white oak = 74 rings. A few nice quality scattered red/pin and white oaks. Some scattered aspen.
56	4199 - Other Mixed Upland Deciduous	Medium Density	28.8	8		Stand treated timber sale #63-009-05-01, "Nuts & Trails".
58	4130 - Aspen	High Density Pole	5.9	48	81-110	
59	4126 - White, Black, N. Pin Oak	High Density Log	5.8	92	111-140	Keep for age class/species diversity.
60	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	29.6	46	1-50	Stand treated timber sale #63-013-95-01, "Tip of the Trail". Good amount of oak seedlings and saplings. Occasional jack pine. Pockets of heavy oak pulpwood.
61	4126 - White, Black, N. Pin Oak	High Density Log	21.8	80	81-110	
63	4126 - White, Black, N. Pin Oak	High Density Log	24.4	95	81-110	Stand treated timber sale #63-019-95-01, "Autumn Olive Oak". All trees were cut except oak 10" DBH and larger.
64	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	27.5	38	1-50	Stand treated timber sale #63-009-05-01, "Nuts & Trails". Stand interplanted with white pine in 1975 per planting form No. 178.
65	4310 - Pine, Oak Mix	High Density Sapling	7.0	18		Stand treated timber sale #63-004-95-01, "8th Street Pine and Hwd". FTP# C63-480. Trenched and handplanted May of 2001.
66	4126 - White, Black, N. Pin Oak	Medium Density Pole	25.5	78	1-50	Stand treated timber sale #63-061-05-01, "James 12:16". Treated in 2009. Do not cut overstory, leave stand for mast and age class diversity. Oak seedlings moderate to heavy. Powerline on west side of stand paralleling James Rd.
67	4310 - Pine, Oak Mix	High Density Pole	9.0	68	81-110	
68	4126 - White, Black, N. Pin Oak	High Density Log	8.2	88	51-80	Poor quality oak in decline. Jack pine heavier in the southeast portion of the stand.
69	4126 - White, Black, N. Pin Oak	Medium Density	6.2	37	1-50	Stand treated timber sale Permit # 3-76A, II-35. Treated 1976 with stand to the west.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
70	42250 - Pine, Oak	High Density Log	6.8	74	81-110	
72	4126 - White, Black, N. Pin Oak	Medium Density Pole	29.2	78	1-50	Stand treated timber sale #63-061-05-01, "James 12:16". Trenched and planted to jack pine in 2010-2011. Powerline and ORV spur trail to campground along southern end, parallel to 16th St.
74	4122 - Oak, Pine	High Density Log	12.3	95	81-110	Oak regeneration heavier in the southern portion of the stand.
75	4126 - White, Black, N. Pin Oak	Medium Density Pole	17.0	78	1-50	Stand treated timber sale #63-061-05-01, "James 12:16". Trenched and planted to jack pine in 2010-2011. Powerline along southern end parallel to 16th St. ORV spur trail to campground runs along Powerline.
76	42221 - Natural Jack Pine, Mixed Deciduous	Medium Density Pole	46.3	16	1-50	Stand treated timber sale #63-013-95-01, "Tip of the Trail". Trenched with skidder 2003-2004. Stand adjacent to 16th St. ORV trail head and parking lot. Scattered overstory oak and white pine. Excellent jack pine regeneration. Powerline and ORV spur trail to campground along southern end, parallel to 16th St.
77	4126 - White, Black, N. Pin Oak	Medium Density Pole	24.1	92	51-80	
78	4310 - Pine, Oak Mix	High Density Pole	28.7	36	1-50	Stand planted via FTP #178, 1977.
79	42260 - Natural Pine, Mixed Deciduous	High Density Pole	16.4	38	51-80	Stand treated timber sale #63-044-85-01, "Pine Release #1". Stand planted to red pine per Planting Form #178, 1975.
80	42141 - Planted Mixed Pine, Mixed Deciduous	High Density Sapling	37.8	27	51-80	Stand planted to red pine circa 1986. No planting form could be found but tree core was taken.
81	4126 - White, Black, N. Pin Oak	High Density Pole	46.4	70	51-80	Stand treated timber sale #63-013-73-A, II-37. Overstory removal. Occasional jack pine saplings and pulpwood.
83	4310 - Pine, Oak Mix	Medium Density	92.4	15		Stand treated timber sale #63-014-97-01, "Over the Hill Again". Disced with skidder per FTP #63-548 in 2004.
85	42260 - Natural Pine, Mixed Deciduous	High Density Sapling	40.0	17		Stand treated timber sale #63-004-95-01, cut 1996. Trenched and seeded approximately 1997. Snow load damage to small area in very southwest portion of stand.
86	42200 - Natural White Pine	High Density Pole	10.4	40	81-110	Stand treated timber sale #63-014-97-01. Conversion to white pine.
88	42200 - Natural White Pine	High Density Pole	9.6	55	81-110	Stand treated timber sale #63-013-73-A, II-37. Overstory removal. Weevil damage high.
89	42290 - Natural Mixed Pine	High Density Pole	26.9	27	51-80	Planted per FTP #C63-341.

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Cadillac Mgt. Unit

Report 8 – Forested Stands

Compartment: 019  
Year of Entry: 2015



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
91	42121 - Planted Jack Pine, Mixed Deciduous	High Density Pole	37.2	40	81-110	Stand treated FTP #153, II-36; 1974. Scarified with roller chopper and drag chain. Direct seeding of jack pine. Scattered white pine left over from treatment. FTP #R-164, II-36; 1976. Direct seeded.
92	42250 - Pine, Oak	High Density Log	20.2	65	51-80	Parcel up for disposal. Previous Comment from 1/6/11: Stand reviewed by the Unit Manager and Site Condition Forester. Stand is not managerially desirable at this time. Variance was requested and granted to drop current treatment. Stand up- dated by Site Condition Forester 1/6/11. Stand should be considered for disposal.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	2113 - Forage Crops	1.2	Yes	High	Maintained wildlife opening.
5	3102 - Grass	1.8	No	Unspecified	Opening - Non-maintained
25	3102 - Grass	13.3	Yes	Oak	Stand treated timber sale #63-009-05-01, "Nuts & Trails". Prescribed burn per FTP #C63-580 on 08/12/08. Burn was excessively hot.
33	2113 - Forage Crops	3.0	Yes	High	Maintained wildlife opening.
41	11 - Low Intensity Urban	1.1	No	Unspecified	M-37
44	3102 - Grass	1.3	No	Unspecified	Powerline
46	3205 - Mixed Upland Shrub	5.4	Yes	Oak	Stand treated timber sale #63-061-05-01, "James 12:16".
57	3205 - Mixed Upland Shrub	26.9	Yes	Mixed Upland Deciduous	Stand treated timber sale #63-001-06-01, "CRS". Treated in 2009. Heavy amount of white and black oak seedlings. Scattered saplings throughout. Seedlings were observed above snow level.
62	2113 - Forage Crops	2.1	Unspecified	Unspecified	
71	3205 - Mixed Upland Shrub	7.2	Yes	Aspen	Jack pine, aspen, oak, and white pine regen.
73	2113 - Forage Crops	3.4	Yes	High	Maintained wildlife opening.
82	3102 - Grass	0.5	No	Unspecified	ORV Trailhead Parking Lot
84	3102 - Grass	11.8	No	Unspecified	Powerline
87	6225 - Bog	1.1	No	Unspecified	Leatherleaf bog.
90	2113 - Forage Crops	1.8	Yes	High	Maintained wildlife opening.