

**CADILLAC FOREST MANAGEMENT UNIT****COMPARTMENT REVIEW PRESENTATION****COMPARTMENT # 103 ENTRY YEAR: 2013****Compartment Acreage (GIS Acres): 2130 County: Missaukee**

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**Revision Date: 10/07/2011 10:18 AM****Stand Examiner:** Steven Eisele, Forest Technician**Legal Description:** T21N, R5W, Sections 33,34,35,36.**Management Goals:** Maintain cover types and age class diversity.**Soil and Topography:** Mostly Grayling Rubicon and Saugatuck sands. Tawas and mucky peat near river. Terrain is mostly level.**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Mostly blocked state land with scattered small private parcels. Roscommon County to the east and Clare County to the south.**Unique, Natural Features (include only non-site specific and non-sensitive information):** The Muskegon River is in the SE portion of section 36. Potential for Goshawk and wood turtle near the river.**Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):** None Known**Special Management Designations or Considerations:** Access limited due to a 3-ton weight limit bridge on Dolph road north of the compartment.**Watershed and Fisheries Considerations:** No Fisheries comments at this time.**Wildlife Habitat Considerations: Priority Wildlife Species:** Those species associated with a mixed upland forest. Species include coyote, fox, bear, bobcat and raptors.**Habitat Objectives:** Fifty percent of this compartment falls within the Highplains Ecosystem, Grayling Outwash Plain Subsection, LTA 5111. Soils are deep, excessively drained, acidic soil. The other half of the compartment is in the Cadillac Subsection, LTA 3111 and 5149. Soils are deep, excessively drained, sands with low fertility. Historically, the area was composed of a matrix of dry-mesic, conifer forest and mixed lowland forests. The wildlife habitat objective is to maintain species and age-class diversity and to maintain and regenerate the oak component. (AH 09/29/11)**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift are the Pennsylvanian Grand River and Saginaw Formations. The Saginaw is quarried for clay/shale in other parts of the State. A gravel pit is located just south of the compartment and potential is considered good especially the upland areas. The compartment is located three miles east of Cranberry Lake Field. The field is a Stray Sandstone gas storage area (7.7 Bcf)

and a Richfield secondary recovery operation (1.7 MBO). All of the state's mineral rights are leased currently, and there may be Collingwood Formation potential.

**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 abandonment. 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:** Interior portions of section 33 do not have corners.

**Recreational Facilities and Opportunities:** The Leota ORV Trail is located throughout the compartment, this trail is heavily used. Other recreation users could be hunters, dispersed camping, berry pickers, and sightseers. 9-01-2011 BET

**Fire Protection:** Fuel types in the compartment could support a large crown carried wildfire. Access for suppression equipment is provided by local county roads and forest roads. There is an urban interface concern with the private ownership adjoining the compartment. 9-01-2011 BET

**Additional Compartment Information:** The following parcels are recommended for acquisition if they become available for sale: Sec. 33, NESW and NWSE. Sec. 35 NESE and SESE

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
  - ◆ **Cover Type by Age Class**
  - ◆ **Cover Type by Management Objective**
  - ◆ **Compartment Volume Summary**
  - ◆ **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 old growth**

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



	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	0	50	16	0	118	91	17	23	9	0	0	0	0	0	123	448
Herbaceous Openland	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Jack Pine	0	151	140	26	0	57	115	0	40	0	0	0	0	0	0	528
Low-Density Trees	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
Lowland Conifers	0	0	0	0	0	0	17	0	0	0	0	0	0	0	5	22
Lowland Deciduous	0	3	0	0	0	0	0	0	0	0	27	0	0	0	58	88
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
Lowland Shrub	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Marsh	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
Mixed Upland Deciduous	0	0	0	0	0	28	11	0	0	11	17	0	0	0	119	188
Natural Mixed Pines	0	0	7	0	0	0	0	30	0	0	0	0	0	0	20	58
Oak	0	18	0	0	22	0	0	0	0	126	41	0	0	0	62	269
Red Pine	0	0	0	0	0	0	55	219	0	0	0	0	0	0	44	318
Treed Bog	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16
Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Water	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
<b>Total</b>	<b>165</b>	<b>222</b>	<b>164</b>	<b>26</b>	<b>141</b>	<b>176</b>	<b>216</b>	<b>272</b>	<b>49</b>	<b>137</b>	<b>86</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>478</b>	<b>2130</b>



## Table 2 – Proposed Treatment Summaries

**Cadillac Mgt. Unit**  
**Year of Entry 2013**

**Compartment 103**  
**Total Compartment Acres: 2130**

### Acres by Treatment Type

Commercial Harvest - 457	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>	59	0	0	0	0	0	0	59
<b>Jack Pine</b>	102	0	0	0	0	0	0	102
<b>Lowland Conifers</b>	17	0	0	0	0	0	0	17
<b>Mixed Upland Deciduous</b>	12	0	0	17	0	0	0	29
<b>Natural Mixed Pines</b>	46	0	0	12	0	0	0	58
<b>Oak</b>	13	0	0	8	0	0	0	20
<b>Red Pine</b>	12	149	0	0	9	0	0	171
<b>Total</b>	<b>261</b>	<b>149</b>	<b>0</b>	<b>37</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>457</b>



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12	63103012-Cut	17.0	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	54	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal
<u>Prescription</u> Final harvest with reserves. Do mini clearcuts and edge areas. Cut about 1/3 of stand. Do not cut cedar, oak or hemlock. <u>Specs:</u> <u>Other</u> Stay out of wet areas <u>Comments:</u> <u>Next</u> <u>Steps:</u>									
19	63103019-Cut	12.2	42260 - Natural Pine, Mixed Deciduous	High Density Log	100	Harvest	Shelter Wood with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Thin pine down to approx 30-50 Ba. Mark larger diameter pine to cut. Remove all aspen, maple and jack pine. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u>									
20	63103020-Cut	17.5	4134 - Aspen, Spruce/Fir	High Density Pole	55	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Final harvest with reserves leave oak, stay out of low wet areas. Do a winter cut. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u>									
28	63103028-Cut	12.4	42110 - Planted Red Pine	High Density Log	53	Harvest	Clearcut	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Final harvest, re plant to red pine <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> Write FTP <u>Steps:</u>									
30	63103030-Cut	7.5	42260 - Natural Pine, Mixed Deciduous	High Density Sapling	17	Harvest	Clearcut	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut, scarify and re plant <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
32	63103032-Cut	11.4	4134 - Aspen, Spruce/Fir	High Density Pole	60	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Final harvest with reserves. Leave cedar and oak. Do a winter cut.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
34	63103034-Cut	7.6	4124 - Red with White Oak	Medium Density Log	90	Harvest	Shelterwood	4121 - Oak, Aspen	Cmpt. Review Proposal
<u>Prescription</u> Shelterwood leave about 30-50 basal area. Remove all aspen and maple.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
46	63103046-Cut	9.4	42110 - Planted Red Pine	High Density Pole	55	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Thin out defect, mangae towards poles.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
47	63103047-Cut	8.1	42260 - Natural Pine, Mixed Deciduous	High Density Pole	66	Harvest	Clearcut with Reserves	42201 - Natural White Pine, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Remove all white pine greater than 6 inch DBH. Let stand evolve to a mix of oak and pine.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
54	63103054-Cut	12.8	4123 - Red Oak	High Density Log	90	Harvest	Patch or Strip Clearcut	4124 - Red with White Oak	Cmpt. Review Proposal
<u>Prescription</u> do 3 mini clearcuts. Approx 5 acres each									
<u>Specs:</u>									
<u>Other</u> Adjacent stands that we're shelterwood cuts brought in high density red maple and very little oak.									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
57	63103057-Cut	17.4	4199 - Other Mixed Upland Deciduous	High Density Log	90	Harvest	Shelterwood	4124 - Red with White Oak	Cmpt. Review Proposal
<u>Prescription</u> Shelterwood but leave a little higher BA 50 to 60. to discourage red maple sprouting.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u> Consider a burn if red maple comes in thick									
<u>Steps:</u>									
59	63103059-Cut	9.3	4133 - Aspen, Mixed Pine	High Density Pole	70	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<u>Prescription</u> Final harvest with reserves, leave oak.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
62	63103062-Cut	9.6	4130 - Aspen	High Density Log	60	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<u>Prescription</u> Final harvest with reserves. Mark some red oak to leave for mast.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
63	63103063-Cut	26.1	42121 - Planted Jack Pine, Mixed Deciduous	High Density Pole	54	Harvest	Clearcut	42120 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Final harvest, plant to red pine. Do not cut areas of high density oak regen on north end.									
<u>Specs:</u>									
<u>Other</u> Stand has a wood wasp research plot.									
<u>Comments:</u>									
<u>Next</u> Write FTP									
<u>Steps:</u>									
66	63103066-Cut	12.0	4199 - Other Mixed Upland Deciduous	High Density Log	60	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<u>Prescription</u> Final harvest with reserves. Leave oak less than 6 inch DBH. Mark some mast oak to leave.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
67	63103067-Cut	11.2	4131 - Aspen, Oak	High Density Log	65	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<u>Prescription</u> Final harvest with reserves. Leave red oak.									
<u>Specs:</u>									
<u>Other</u> Buffer ORV trail									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
78	63103078-Cut	22.8	42221 - Natural Jack Pine, Mixed Deciduous	High Density Pole	55	Harvest	Patch or Strip Clearcut	42221 - Natural Jack Pine, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Do north/south strip clearcuts. 2 chains wide.									
<u>Specs:</u>									
<u>Other</u> Buffer ORV trail									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
82	63103082-Cut	82.0	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	65	Harvest	Single Tree Selection	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Thin red pine down to 70-90 basal area, take out larger diameters.									
<u>Specs:</u>									
<u>Other</u> Buffer ORV trail									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
85	63103085-Cut	14.4	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	65	Harvest	Single Tree Selection	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Remove all jack pine, thin red pine down to approx. 70 -90 basal area, remove larger diameters.									
<u>Specs:</u>									
<u>Other</u> Buffer ORV trail									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									
88	63103088-Cut	29.9	42110 - Planted Red Pine	High Density Log	65	Harvest	Single Tree Selection	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Remove all jack pine, thin red pine down to approx. 100-120 basal area. DO NOT treat retention island to the south.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u>									
<u>Steps:</u>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
92	63103092-Cut	13.8	42220 - Natural Jack Pine	High Density Pole	55	Harvest	Clearcut with Reserves	42221 - Natural Jack Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Final harvest with reserves, leave oak less than 6 inch DBH. Have logger scarify, no winter cut.

Specs:

Other Buffer ORV trail

Comments:

Next

Steps:

94	63103094-Cut	22.9	42110 - Planted Red Pine	High Density Log	60	Harvest	Single Tree Selection	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Remove all jack pine, thin red pine down to 70-90 basal area, take our larger diameters.

Specs:

Other

Comments:

Next

Steps:

100	63103100-Cut	25.0	42220 - Natural Jack Pine	High Density Pole	70	Harvest	Clearcut with Reserves	42221 - Natural Jack Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Final harvest with reserves, leave oak. Have logger scarify

Specs:

Other Some areas are wet, may not get to whole stand.

Comments:

Next

Steps:

105	63103105-Cut	30.2	42260 - Natural Pine, Mixed Deciduous	High Density Pole	65	Harvest	Clearcut with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Final harvest with reserves, leave oak and jack pine less than 6 inch DBH. Mark a few mast oak to leave. Have logger scarify. Use BMP guidelines

Specs:

Other

Comments:

Next

Steps:

107	63103107-Cut	14.5	42221 - Natural Jack Pine, Mixed Deciduous	Low Density Pole	70	Harvest	Clearcut with Reserves	42221 - Natural Jack Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Final harvest with reserves, leave oak. Apply BMP Guidelines

Specs:

Other

Comments:

Next

Steps:

**Total Treatment  
Acreage Proposed: 456.8**

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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**

**Out of YOE -- Treatments  
Prescribed with No Limiting Factor**

Year of Entry: 2013



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
63102_OutOfY OE_1-Cut	7.2				Harvest	Clearcut	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Final harvest plant to red pine								
<u>Specs:</u>								
<u>Other</u>								
<u>Comments:</u>								
<u>Next</u> Write FTP								
<u>Steps:</u>								
<b>Total Treatment Acreage Proposed:</b>		<b>7.2</b>						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4319 - Mixed Upland Forest	High Density Pole	9.4	Uneven Age	81-110	buffers water long narrow stand
5	4130 - Aspen	High Density Pole	58.4	37	81-110	lots of low areas
6	4130 - Aspen	High Density Log	2.0	60		Stand swapped from Non-Forested to Forested. leave as a retention buffer stand
8	4130 - Aspen	High Density Sapling	25.9	5		stand has been cut look up cut records
9	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	2.6	Uneven Age	81-110	New stand added. wet
10	4134 - Aspen, Spruce/Fir	High Density Pole	24.5	Uneven Age	111-140	a lot of low wet areas scattered super canopy white pine
11	6139 - Mixed Lowland Forest	High Density Pole	5.6	Uneven Age	81-110	wet scattered super canopy white pine oi stand 10
12	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	17.0	54	111-140	wet areas
14	4130 - Aspen	High Density Sapling	24.4	5		cut last year of entry good regen
16	429 - Mixed Upland Conifers	High Density Pole	15.3	Uneven Age	111-140	wet areas
18	4124 - Red with White Oak	High Density Log	4.4	Uneven Age	51-80	cut last year of entry good regen
19	42260 - Natural Pine, Mixed Deciduous	High Density Log	12.2	Uneven Age	81-110	
20	4134 - Aspen, Spruce/Fir	High Density Pole	17.5	55	111-140	
22	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	12.7	Uneven Age	51-80	has been treated look up cut records salvage sale in 99 treat next year of entry
24	4191 - Mixed Upland Deciduous with Conifer	High Density Log	3.0	Uneven Age	81-110	wet all around
25	4199 - Other Mixed Upland Deciduous	High Density Sapling	14.7	Uneven Age	1-50	stand has been cut log size oak over maple oak and jack pine saps look up cut records
28	42110 - Planted Red Pine	High Density Log	12.4	53	111-140	
29	4133 - Aspen, Mixed Pine	High Density Pole	17.8	35	81-110	a lot of wet areas

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## Cadillac Mgt. Unit

## 5 – Forested Stands

Compartment: 103  
Year of Entry: 2013

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
42260 - Natural Pine, Mixed Deciduous	High Density Sapling	7.5	17		final harvested in past coming back as a natural mix
4134 - Aspen, Spruce/Fir	High Density Pole	11.4	Uneven Age	81-110	wet areas
4131 - Aspen, Oak	High Density Pole	6.3	Uneven Age	81-110	final harvest next year of entry
4124 - Red with White Oak	Medium Density Log	7.6	90	51-80	
4130 - Aspen	High Density Pole	11.5	42	81-110	old oi stand 50
6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	2.7	Uneven Age	81-110	oi stand 13
429 - Mixed Upland Conifers	High Density Log	9.6	Uneven Age	81-110	wet all around it oi stand 32
4139 - Aspen, Mixed Deciduous	High Density Sapling	5.4	Uneven Age		New stand added. cut last year of entry good regen log size oak over aspen maple sprouts
4311 - Pine, Aspen Mix	High Density Log	6.5	Uneven Age	81-110	wet all around it
6117 - Lowland Deciduous, Mixed Coniferous	Low Density Sapling	3.0	5		Stand swapped from Non-Forested to Forested. wet but cut at some time poor regen
4124 - Red with White Oak	High Density Log	26.6	Uneven Age	51-80	treated last year of entry log size oak over good regen of oak, maple sprouts merge with 44 49
42110 - Planted Red Pine	High Density Pole	9.4	55	81-110	
42260 - Natural Pine, Mixed Deciduous	High Density Pole	8.1	Uneven Age	111-140	
4139 - Aspen, Mixed Deciduous	High Density Sapling	4.9	Uneven Age	1-50	cut last year of entry log size oak over aspen maple sprouts
4130 - Aspen	High Density Pole	19.4	Uneven Age	51-80	cut in 98 good regen
4130 - Aspen	High Density Pole	21.8	42	81-110	look up cut records oi stand 50
4124 - Red with White Oak	Medium Density Log	16.7	Uneven Age	51-80	cut last year of entry r
4130 - Aspen	High Density Pole	16.4	15	81-110	look up cut records oi stand 61 cut in 96

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## Cadillac Mgt. Unit

## 5 – Forested Stands

Compartment: 103  
Year of Entry: 2013

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
54	4123 - Red Oak	High Density Log	33.7	90	81-110	good solid red oak healthy
55	4199 - Other Mixed Upland Deciduous	High Density Pole	13.7	Uneven Age	51-80	look up cut records oi stand 67
56	4139 - Aspen, Mixed Deciduous	High Density Pole	16.1	40	81-110	look up cut records oi stand 53
57	4199 - Other Mixed Upland Deciduous	High Density Log	17.4	90	81-110	piece not cut last year of entry merge 55 a into 56
58	4199 - Other Mixed Upland Deciduous	High Density Sapling	19.4	Uneven Age	1-50	log size oak over aspen maple sprouts some areas of high density oak regen
59	4133 - Aspen, Mixed Pine	High Density Pole	9.3	70	111-140	
61	4122 - Oak, Pine	Medium Density Pole	14.2	Uneven Age	1-50	stand has been cut good regen of oak pine
62	4130 - Aspen	High Density Log	9.6	60	111-140	
63	42121 - Planted Jack Pine, Mixed Deciduous	High Density Pole	26.1	54	81-110	stand has research plots wood wasp?
64	4139 - Aspen, Mixed Deciduous	High Density Pole	20.0	35	81-110	came back to a good mix of oak aspen
65	4139 - Aspen, Mixed Deciduous	High Density Sapling	50.7	Uneven Age	1-50	log size oak over aspen maple sprouts
66	4199 - Other Mixed Upland Deciduous	High Density Log	12.0	Uneven Age	51-80	low quality
67	4131 - Aspen, Oak	High Density Log	11.2	65	81-110	oi stand 45
68	4126 - White, Black, N. Pin Oak	High Density Sapling	9.9	33	1-50	good regen of oak look up cut records
69	4199 - Other Mixed Upland Deciduous	High Density Sapling	43.5	Uneven Age	1-50	log size oak and aspen over oak aspen maple sprouts look up cut records
70	4139 - Aspen, Mixed Deciduous	High Density Pole	31.6	40		could cut some patch areas of solid aspen if another age class' needed
71	4130 - Aspen	High Density Pole	1.6	40		
73	4130 - Aspen	High Density Pole	8.3	40	111-140	New stand added. look up cut records oi stand 71

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## Cadillac Mgt. Unit

## 5 – Forested Stands

Compartment: 103  
Year of Entry: 2013

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4139 - Aspen, Mixed Deciduous	Medium Density Pole	22.1	35	111-140	look up cut records
42110 - Planted Red Pine	High Density Pole	9.2	55	81-110	third row thinned last year of entry
4199 - Other Mixed Upland Deciduous	High Density Pole	28.5	40		look up cut records good regen of oak
4129 - Mixed Oak	High Density Pole	12.6	30	81-110	thick/dense
42221 - Natural Jack Pine, Mixed Deciduous	High Density Pole	44.4	55	111-140	oi stand 77 red pine stand south of road doing well clare county
4126 - White, Black, N. Pin Oak	High Density Sapling	14.7	6		cut last year of entry good solid oak regen look up cut records
4199 - Other Mixed Upland Deciduous	Medium Density Pole	11.3	50	51-80	open /wolfy
42220 - Natural Jack Pine	High Density Pole	48.1	40	81-110	oi stand 81
42111 - Planted Red Pine, Mixed Deciduous	High Density Log	82.0	65	81-110	do not merge with 85
42221 - Natural Jack Pine, Mixed Deciduous	High Density Sapling	51.6	6		look up cut records good regen of oak jack pine
42210 - Natural Red Pine	High Density Log	3.5	65	81-110	retention island
42111 - Planted Red Pine, Mixed Deciduous	High Density Log	14.4	Uneven Age	81-110	
42220 - Natural Jack Pine	Low Density Sapling	99.3	6		recent red pine project clearcut is it going to be planted?
42210 - Natural Red Pine	High Density Log	23.9	58	81-110	treated last year of entry
42110 - Planted Red Pine	High Density Log	29.9	Uneven Age	111-140	
42220 - Natural Jack Pine	High Density Sapling	96.1	16		oi stand 82 look up cut records
4129 - Mixed Oak	Medium Density	3.3	6		Stand swapped from Non-Forested to Forested. cut the same time as 81
42220 - Natural Jack Pine	High Density Pole	25.9	25	81-110	New stand added.

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## Cadillac Mgt. Unit

## 5 – Forested Stands

Compartment: 103  
Year of Entry: 2013

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
92	42220 - Natural Jack Pine	High Density Pole	13.8	55	81-110	
94	42110 - Planted Red Pine	High Density Log	22.9	60	81-110	
95	42220 - Natural Jack Pine	High Density Pole	15.6	16	81-110	oi stand 93 look up cut records
97	42220 - Natural Jack Pine	High Density Pole	8.4	45	81-110	look up cut records oi stand 102
98	42110 - Planted Red Pine	High Density Log	110.2	65	51-80	has had all jack pine removed good regen of oak
99	42220 - Natural Jack Pine	Medium Density Pole	20.6	17	1-50	open grown wolfy oi stand 111
100	42220 - Natural Jack Pine	High Density Pole	25.0	70	81-110	
101	42120 - Planted Jack Pine	High Density Pole	8.2	17	81-110	look up plant records
103	4122 - Oak, Pine	Medium Density Pole	125.6	80	1-50	cut in winter of 05,06. good subcanopy of jack pine and oak . scattered oak and jack pole and log size left throughout stand
104	42221 - Natural Jack Pine, Mixed Deciduous	High Density Pole	30.9	50	51-80	smaller diameter jack pine stand has been cut all around it leave until next year of entry
105	42260 - Natural Pine, Mixed Deciduous	High Density Pole	30.2	65	51-80	decaying oak and mature jack
106	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	27.8	Uneven Age	81-110	New stand added. oxbow plain near river
107	42221 - Natural Jack Pine, Mixed Deciduous	Low Density Pole	14.5	70	51-80	New stand added. open area near river
108	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	16.4	Uneven Age	1-50	Stand swapped from Non-Forested to Forested. wet run near river
110	6118 - Lowland Deciduous with Cedar	High Density Pole	26.9	90	81-110	low and wet
111	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	13.7	Uneven Age		oxbow
113	4199 - Other Mixed Upland Deciduous	Medium Density Pole	11.3	80	1-50	most of the oak has died & blown down filling in with white pine no access floodplain



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	50 - Water	6.5	No	Unspecified	
3	6229 - Mixed lowland shrub	1.1	No	Unspecified	
4	6229 - Mixed lowland shrub	0.7	No	Unspecified	
7	6220 - Alder/willow	0.7	No	Unspecified	New stand added.
13	6239 - Mixed Emergent Wetland	0.7	No	Unspecified	
15	6239 - Mixed Emergent Wetland	0.9	No	Unspecified	New stand added.
17	6239 - Mixed Emergent Wetland	15.6	No	Unspecified	
21	6239 - Mixed Emergent Wetland	12.5	No	Unspecified	
23	50 - Water	2.0	No	Unspecified	
26	6220 - Alder/willow	0.8	No	Unspecified	Stand swapped from Forested to Non-Forested.
27	6224 - Treed Bog	10.9	N/A	Unspecified	trees are standing dead
31	6229 - Mixed lowland shrub	1.3	No	Unspecified	New stand added.
35	122 - Road/Parking Lot	4.6	Yes	Low (NonForested)	long road
37	3303 - Mixed Low Density Trees	4.2	No	Unspecified	open area with small pond and scattered trees
44	3102 - Grass	1.0	N/A	Unspecified	
45	6220 - Alder/willow	0.7	No	Unspecified	New stand added.
49	6224 - Treed Bog	7.3	No	Unspecified	trees are standing dead
60	3301 - Low Density Deciduous Tree	4.9	No	Unspecified	Stand swapped from Forested to Non-Forested. old landing



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
72	3303 - Mixed Low Density Trees	2.8	No	Unspecified	old landing starting to fill in
93	3303 - Mixed Low Density Trees	47.9	Yes	Natural Mixed Pines	New stand added. just cut for red pine project ?? Stand swapped from Forested to Non-Forested.
96	3102 - Grass	4.7	No	Unspecified	
102	6239 - Mixed Emergent Wetland	19.2	No	Lowland Conifers	flowing
109	50 - Water	13.5	No	Unspecified	muskegon river
112	50 - Water	0.9	No	Unspecified	muskegon river



### 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
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.

Compartment 103  
 T21N, R05W, Sec. 33-36  
 County: Missaukee  
 Unit: Cadillac  
 YOE: 2013  
 Acres: 2,130 GIS Calculated  
 Stand Examiner: Steve Eisele  
 Map Revised: 10/6/2011  
 Map Phase: Pre-Review

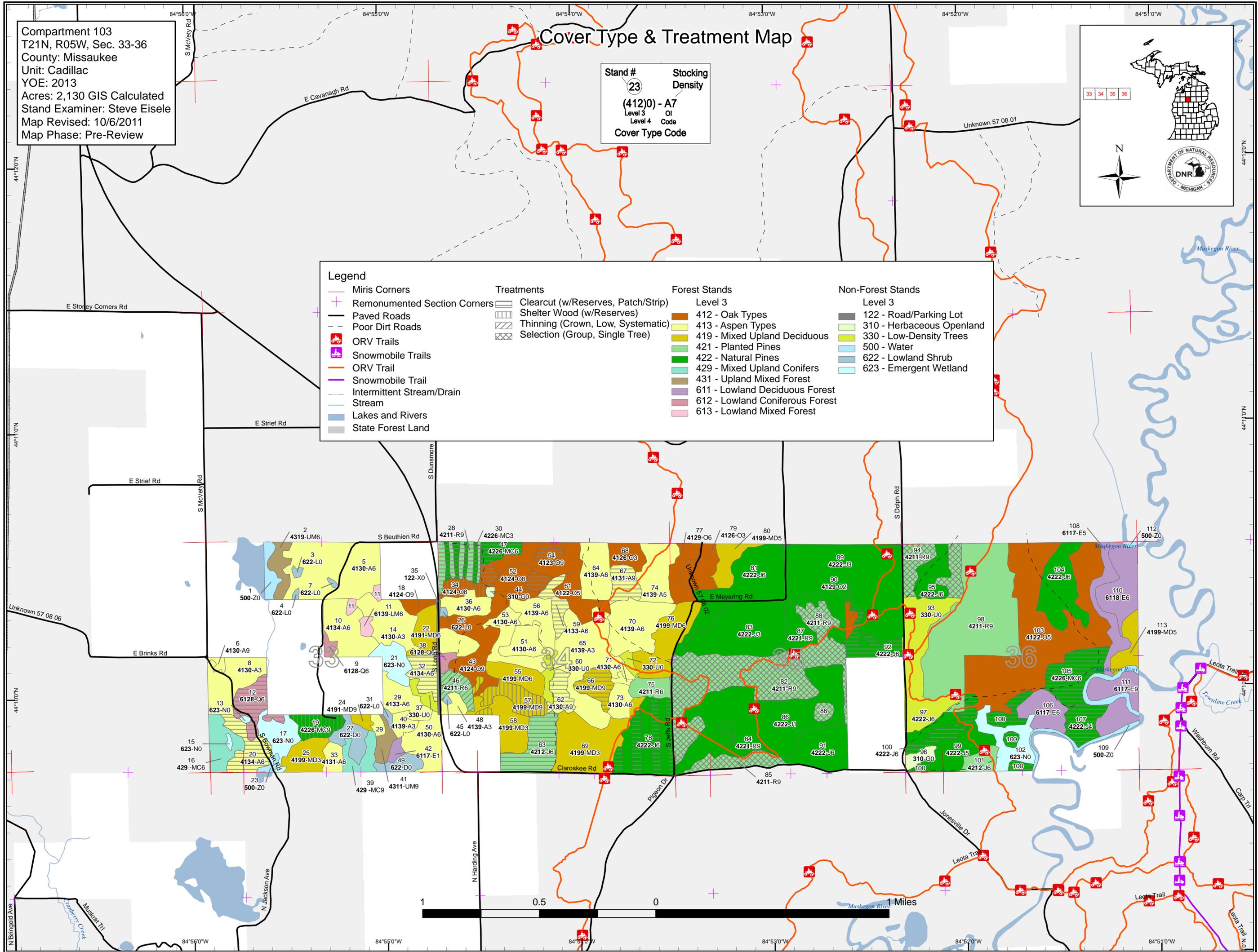
# Cover Type & Treatment Map

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



**Legend**

<ul style="list-style-type: none"> <li>— Miris Corners</li> <li>— Paved Roads</li> <li>— Poor Dirt Roads</li> <li>ORV Trails</li> <li>Snowmobile Trails</li> <li>ORV Trail</li> <li>Snowmobile Trail</li> <li>Intermittent Stream/Drain</li> <li>Stream</li> <li>Lakes and Rivers</li> <li>State Forest Land</li> </ul>	<p><b>Treatments</b></p> <ul style="list-style-type: none"> <li>Clearcut (w/Reserves, Patch/Strip)</li> <li>Shelter Wood (w/Reserves)</li> <li>Thinning (Crown, Low, Systematic)</li> <li>Selection (Group, Single Tree)</li> </ul>	<p><b>Forest Stands</b></p> <p>Level 3</p> <ul style="list-style-type: none"> <li>412 - Oak Types</li> <li>413 - Aspen Types</li> <li>419 - Mixed Upland Deciduous</li> <li>421 - Planted Pines</li> <li>422 - Natural Pines</li> <li>429 - Mixed Upland Conifers</li> <li>431 - Upland Mixed Forest</li> <li>611 - Lowland Deciduous Forest</li> <li>612 - Lowland Coniferous Forest</li> <li>613 - Lowland Mixed Forest</li> </ul>	<p><b>Non-Forest Stands</b></p> <p>Level 3</p> <ul style="list-style-type: none"> <li>122 - Road/Parking Lot</li> <li>310 - Herbaceous Openland</li> <li>330 - Low-Density Trees</li> <li>500 - Water</li> <li>622 - Lowland Shrub</li> <li>623 - Emergent Wetland</li> </ul>
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Compartment 103  
 T21N, R05W, Sec. 33-36  
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 Unit: Cadillac  
 YOE: 2013  
 Acres: 2,130 GIS Calculated  
 Stand Examiner: Steve Eisele  
 Map Revised: 10/6/2011  
 Map Phase: Pre-Review

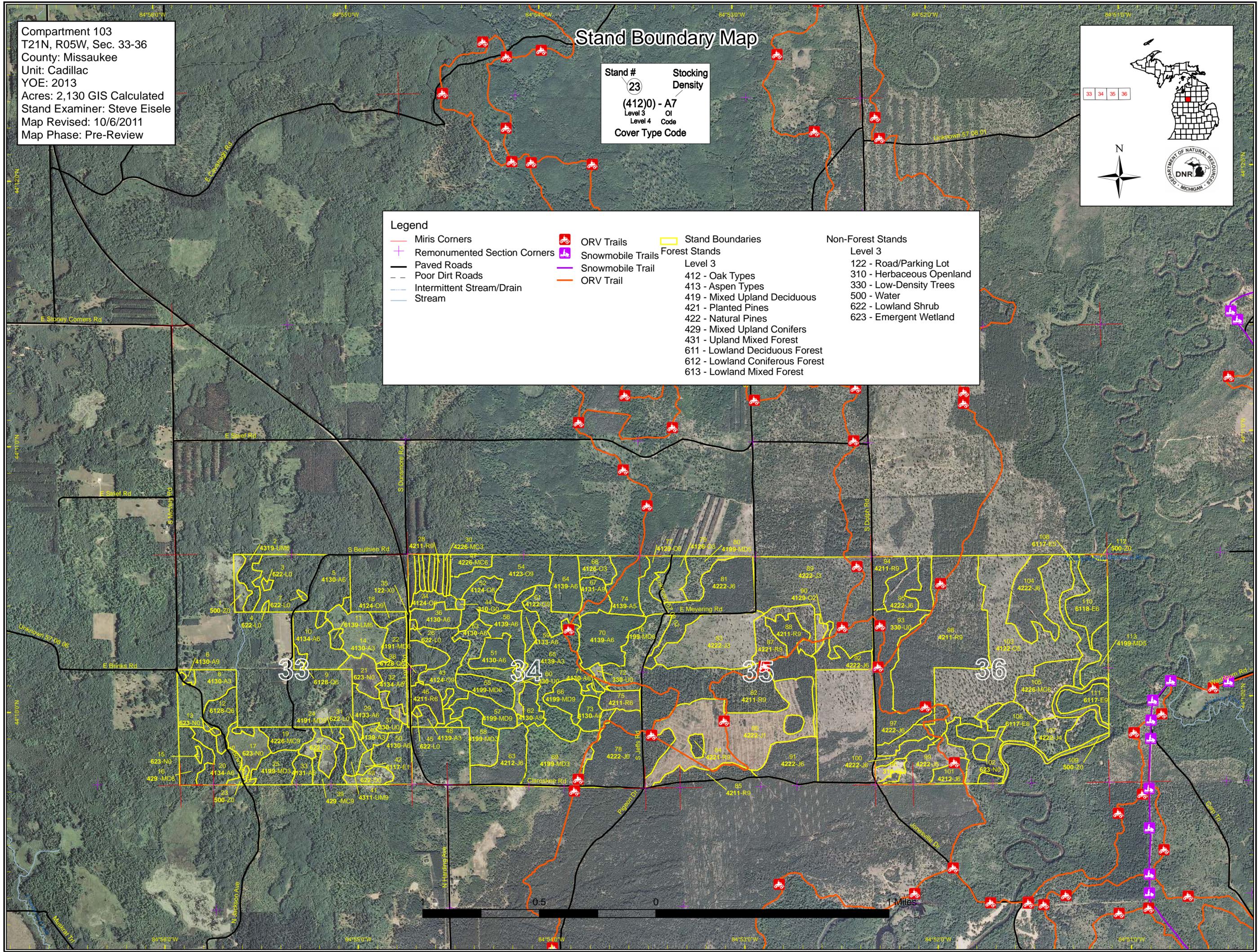
# Stand Boundary Map

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



## Legend

- |                              |                   |                                 |                           |
|------------------------------|-------------------|---------------------------------|---------------------------|
| Miris Corners                | ORV Trails        | Stand Boundaries                | <b>Non-Forest Stands</b>  |
| Remonumented Section Corners | Snowmobile Trails | <b>Forest Stands</b>            | <b>Level 3</b>            |
| Paved Roads                  | Snowmobile Trail  | <b>Level 3</b>                  | 122 - Road/Parking Lot    |
| Poor Dirt Roads              | ORV Trail         | 412 - Oak Types                 | 310 - Herbaceous Openland |
| Intermittent Stream/Drain    |                   | 413 - Aspen Types               | 330 - Low-Density Trees   |
| Stream                       |                   | 419 - Mixed Upland Deciduous    | 500 - Water               |
|                              |                   | 421 - Planted Pines             | 622 - Lowland Shrub       |
|                              |                   | 422 - Natural Pines             | 623 - Emergent Wetland    |
|                              |                   | 429 - Mixed Upland Conifers     |                           |
|                              |                   | 431 - Upland Mixed Forest       |                           |
|                              |                   | 611 - Lowland Deciduous Forest  |                           |
|                              |                   | 612 - Lowland Coniferous Forest |                           |
|                              |                   | 613 - Lowland Mixed Forest      |                           |



Compartment 103  
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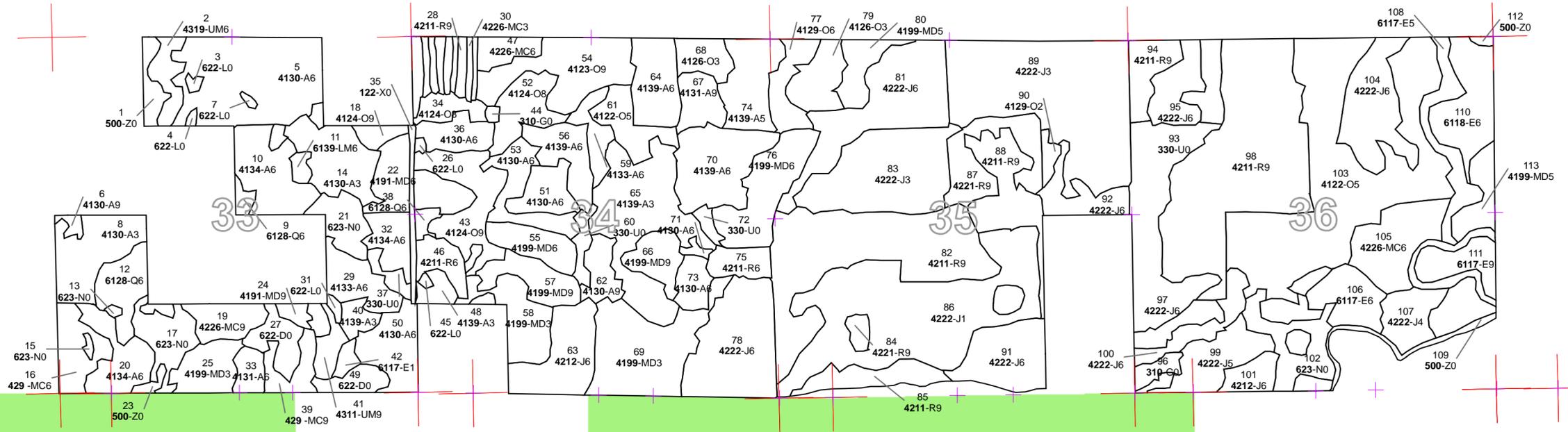
# Dedicated & Proposed Special Conservation Area Map

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



**Legend**

— Miris Corners	<b>Forest Stands</b>	<b>Non-Forest Stands</b>
+ Remonumented Section Corners	Level 3	Level 3
□ Stand Boundaries	412 - Oak Types	122 - Road/Parking Lot
▨ Proposed Special Conservation Areas	413 - Aspen Types	310 - Herbaceous Openland
▨ SCA - Special Conservation Area	419 - Mixed Upland Deciduous	330 - Low-Density Trees
▨ SCA Removal	421 - Planted Pines	500 - Water
▨ Dedicated Special Conservation Area	422 - Natural Pines	622 - Lowland Shrub
■ Kirtland Warbler Habitat	429 - Mixed Upland Conifers	623 - Emergent Wetland
	431 - Upland Mixed Forest	
	611 - Lowland Deciduous Forest	
	612 - Lowland Coniferous Forest	
	613 - Lowland Mixed Forest	



84°56'0"W 84°55'0"W 84°54'0"W 84°53'0"W 84°52'0"W 84°51'0"W

44°12'0"N

44°11'0"N

44°10'0"N

44°12'0"N

44°11'0"N

44°10'0"N