

## CADILLAC FOREST MANAGEMENT UNIT



### COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 026 ENTRY YEAR: 2007

Compartment Acreage (GIS Acres): 2455 County: Lake

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**Revision Date:** 10/31/2005 3:34 PM

**Stand Examiner:** Cheryl Nelson, Forester

**Legal Description:** T18N R12W, Sec. 18, 30-32  
T18N R13W, Sec. 13-15, 22-26, 35, 36

**RMU:** 311, Recreation

**Management Goals:** The RMU will be managed to maintain the integrity of the recreational developments and the natural features within its boundaries. Management will strive to maintain the age class and cover type diversity.

**Soil and Topography:** Graycalm-Grayling sands: Nearly level to moderately steep, excessively drained Grayling soils and somewhat excessively drained Graycalm soils on outwash plains, till plains, and low moraines. Kalkaska: Nearly level to steep, somewhat excessively drained and well drained sandy soils on outwash plains, till plains, and moraines. Both the Graycalm-Grayling sands and the Kalkaska soils are located throughout the compartment. Tawas-Croswell-Lupton: Nearly level and undulating, very poorly drained and moderately well drained mucky and sandy soils in bogs, depressions, and drainage ways and on low flats and benches. This soil complex is located in the southern part of the compartment.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Blocks of state ownership widely divided by private lots and acreages. The state owns many small tax-reverted lots in this RMU which are not manageable because of their size and location. The small isolated lots should be disposed of.

**Unique, Natural Features:** This area includes Bray Lake, Big Leverentz Lake, and Little Leverentz Lake. The Baldwin River, Cole Creek, Sanborn Creek, and Bray Creek flow through the compartment.

The Michigan Natural Features Inventory lists the following as occurring/having occurred in the compartment: Spotted turtle, Eastern box turtle, Karner blue butterfly, Great Plains spittlebug, Massasauga rattlesnake, Oak-pine barrens, Hill's thistle, Alleghany plum, and Bog bluegrass. The compartment has the potential for the Persius duskywing, Frosted elfin, Dusted skipper, Grizzled skipper, red legged spittlebug, Pine tree cricket, Great blue heron rookery, Rough fescue, Pale agoseris, and Prairie smoke.

**Special Management Designations or Considerations:** Approximately 60 acres adjacent to the Bray Creek Campground contain scattered old-growth white pine. This area will be managed as an old-growth natural area.

**Watershed and Fisheries Considerations:** Bray Creek, Leverentz Creek, Sanborn Creek and the Baldwin River all lie within this compartment and are designated tributaries to the Pere Marquette River, a state natural river. Also within the compartment are Bray Lake, Big and Little Leverentz Lakes, and Whelan Lake. Under the natural river zoning rules, a vegetative buffer of 75 feet along the Baldwin River and 50 feet along the tributaries is maintained. Any cutting within this area requires a permit from the river zoning administrator, Dan Pearson. Fisheries Division requests a 100 foot buffer be maintained on all of the listed water bodies.

**Wildlife Habitat Considerations:** This compartment is the only one in the RMU and it calls for an allowed conversion of some of the jack pine type to red pine or white pine. Many stands within the compartment have a heavy understory of white pine. Regenerating the oak component has been a problem. Featured wildlife species are deer, turkey, and bear. The river and creek corridors provide valuable habitat to bobcat and bear. (L.Smith, 7/19/05)

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are the Pennsylvanian Saginaw Formation and the Mississippian Bayport Limestone. The Saginaw is quarried for clay/shale products and the Bayport for limestone in other areas of the State. Gravel pits are located in Section 23 and potential is considered good. The nearest production is at Peacock Field located eight miles to the southwest. The Field produced nearly 1,700,000 BO from the Traverse Limestone. None of the compartment is currently leased for oil and gas exploration.

There is a Michigan-Wisconsin Gas pipeline that runs through the northwest part of the compartment.

**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. Proposed new roads or roads recommended for substantial improvement are noted below:

**Recreational Facilities and Opportunities:** Bray Creek and Leverentz Lake Campgrounds are in the compartment. The Bray Creek Campground has 9 sites, Big Leverentz Lake has 18 sites and Little Leverentz Lake has 7 sites. At the Big Leverentz Campground, an ADA floating "T" dock provides fishing access to Big Leverentz Lake. The access road to Big and Little Leverentz Lakes Campgrounds was re-graded and graveled in the spring of 2005. The Pine Valley Pathway is located in the compartment for biking and hiking opportunities. The Bray Creek Pathway is also in this compartment, and provides hiking opportunities near the Baldwin River, with the trailhead being located at Bray Creek Campground. There is a proposed treatment area that has approximately 0.26 miles of the pathway running through it.

**Fire Protection:** This area has a high potential for urban interface fires. Most of the area has a high fuel loading. The numerous lakes and streams in the area, could limit access for heavy equipment.

#### **Additional Compartment Information:**

- **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**

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Michigan Department of Natural Resources - Operations Inventory System  
Individual Compartment Report

PERE MARQUETTE STATE FOREST

CADILLAC MGT UNIT

LAKE COUNTY

COMPARTMENT: 26

Table 3

(acres shown in boxes)

STAND AGE CLASS

COVER TYPE	Not Coded	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150-159	All Aged	Total
Aspen		20	48	57	12				14										151
Bog or Marsh	58																		58
Grass	9																		9
Hemlock									9										9
Jack Pine		124	241	103	69			73	182	93									885
LowInd Brush	9																		9
Marsh	29																		29
Oak		142		11					128	336	16								633
Red Pine		51		94			160												305
Swamp Hrdwds									109	55									164
Water	21																		21
White Pine		73						37	46									26	182
<b>Total</b>	<b>126</b>	<b>410</b>	<b>289</b>	<b>265</b>	<b>81</b>		<b>160</b>	<b>110</b>	<b>488</b>	<b>484</b>	<b>16</b>							<b>26</b>	<b>2455</b>

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Michigan Department of Natural Resources - Operations Inventory System  
Individual Compartment Report

PERE MARQUETTE STATE FOREST

CADILLAC MGT UNIT

LAKE COUNTY

COMPARTMENT: 26

Table 3A

(acres shown in boxes)

MANAGEMENT OBJECTIVE TYPE

COVER TYPE	A	S	V	C	G	H	J	I	L	P	N	Q	X	O	B	R	K	Y	F	E	T	D	U	M	Z	W	Total
A Aspen	151																										151
V Bog or Marsh			58																								58
G Grass					9																						9
H Hemlock						9																					9
J Jack Pine							810							24												51	885
L LowInd Brush									9																		9
N Marsh											29																29
O Oak														633													633
R Red Pine																305											305
E Swamp Hrdwds																				164							164
Z Water																									21	21	
W White Pine														46												136	182
<b>Total</b>	151		58		9	9	810		9		29			703		305				164					21	187	2455

PERE MARQUETTE STATE FOREST

CADILLAC MGT UNIT

LAKE COUNTY

COMPARTMENT: 26

**Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS**

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	5908 Cds	Hardwood	1603 Cds
Hardwood	1584 Mbf	Hardwood	424 Mbf
Softwood	7087 Cds	Softwood	3574 Cds
Softwood	1225 Mbf	Softwood	474 Mbf
Sum TotVol	18613 Cds	Sum CutVol	6973 Cds
<b>Total Cmpt Acres</b>		Acres Proposed For Cut.....	723
2455			

**CADILLAC MGT UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 26**

**Entry Year: 2007**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	DFD Status
2	J6	31	59	50	jack pine	low quality	final harvest	2		
comnts Fmd : Very small amount of oak saplings in stand. Green mark to leave occasional mature oak for mast. Do not cut any oak regeneration under 2.0" DBH. White pine in stand that did not show up in cruise. Cut all white pine 8" and above.										
7	W6	46	75	55	oak	low quality	seed tree	1	other - specify in remarks	
comnts Fmd : Large, wolfy oaks. Small amount of red pine and jack pine in stand that did not fall in plots. There is a lot of mortality in the jack pine. There is a small amount of oak seedlings in open areas but most of the sapling/pulpwood oaks have been overtopped and are falling out of the stand. Cut all jack pine, red maple, and white pine. Cut all oak EXCEPT mark large wolfy oaks to leave for seed and mast. There is a wet area to the west of the stand. Some hemlock, ash, and cedar that did not show up in cruise. Do not cut hemlock or cedar. Consider a winter cut. TRENCH AFTER HARVESTING.										
14	J6	29	79	50	jack pine	immature	seed tree	1		
comnts Fmd : Scattered white oak regen throughout stand. Cut all JP. Mark white and mixed oak GREEN to leave. James Rd. runs along the western edge of the stand.										
15	O9	10	85	55	oak	mature	thinning	1		
comnts Fmd : Oak stand with ash becoming heavier on the wetter, southwest side of the stand. Merrillville Rd. runs along the east side of stand. There is about 1/2 mile of private line. Leave white pine 8" and under.										
17	O6	15	75	50	oak	mature	seed tree	3		
comnts Fmd : Green mark to leave occasional mature oak for mast and seed source. 24th street runs along the southern edge of the stand. Avoid 'G' type on east side of stand.										
21	J6	21	60	50	jack pine	mature	seed tree	1		
comnts Fmd : White oak in stand that did not show up in cruise. Do not cut any oak regeneration under 2.0". Mark oak GREEN to leave. Small amount of white pine that did not show up in cruise. Cut wp 8" and over.										
22	O6	96	84	40	oak	mature	seed tree	1	other - specify in remarks	
comnts Fmd : Leave 1 healthy mature sawlog tree every 75'. Green mark healthy oak along M-37. Cut all jack pine. Burn stand after harvest. Burn during conditions that will give us the hottest fire possible to set grass back and ensure mineral soil for acorn drop during the fall after the burn.										
25	J9	24	84	46	oak	low quality	seed tree	1		
comnts Fmd : M-37 runs along the eastern edge of this stand. John's Road runs along the western edge. There is a utility line that runs parallel to M-37 on the eastern edge. Heavier JP regen towards southern part of stand. Cut all Jack Pine. Do not cut JP under 4". Mark mature oaks GREEN to leave. Do not cut any oak under 4.0".										
28	J5	18	76	50	jack pine	mature	final harvest	3		
comnts Fmd : Stand has 120 chains (1.5 miles) of private boundary line due to shape of the stand. 24th Street borders on the north and Merrillville Rd. borders on the East. 2.5 acres of private land is totally surround by this stand. Do not cut any oak. Dispose?										
36	O6	29	75	50	oak	low quality	seed tree	1		
comnts Fmd : Aspen clones scattered in stand. JP and WP scattered in stand. Cut all Aspen, JP, WP. Green mark to leave mixed oak sawlogs for seed source. Do not cut WO. Ski trail runs through stand. 40th street borders south side, Bronson road on east side of stand. Trench after harvest.										
50	R6	46	50	60	red pine	immature	thinning	2		
comnts Fmd : Dead and dying JP throughout. Mark to thin RP. Evidence of past fire.										
58	R9	5	50	70	red pine	mature	thinning	1		
comnts Fmd : Mark to thin red pine.										
63	R6	61	55	65	red pine	mature	thinning	1		
comnts Fmd : Mark to thin red pine. Cut all aspen, jack pine. Cut all oak EXCEPT green mark oak sawlogs to leave. Clearcut all species in heavy aspen areas to expand the aspen type. Mark oak/red pine a little heavier along trail.										
64	R9	10	55	65	red pine	mature	thinning	2		
comnts Fmd : Mark to thin red pine. Areas of jack pine not in plots. JP dead/dying in stand. Remove all JP. Small amount of white pine that did not show up in cruise. Thin white pine. Stay back 150' from Baldwin River edge per natural rivers plan.										
67	R9	6	55	65	red pine	mature	thinning	2		
comnts Fmd : Cross-country ski trail runs through stand. Private land along the northern boundary. Mark to thin red pine.										

**CADILLAC MGT UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 26**

**Entry Year: 2007**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
68	L3	9			lowland brush	low quality	final harvest	1	natural regeneration	
comnts Fmd : Wildlife habitat cut. Forest Rd. runs along western boundary. Edge by road has some sawlog aspen (falling apart), some pulp sized white pine, a small amount of white oak, a small amount of jack pine (falling apart), and a small amount of elm.										
70	J6	17	75	60	white pine	low quality	shelterwood-seed	1		
comnts Fmd : Some aspen that did not show up in plots. Cut all aspen, red maple, and jack pine. Cut white pine sawlog trees 10" DBH and over. Green mark quality oak to leave. White oak was found in the stand but did not show up in the plots. Private property runs along the southern boundary. Forman road runs along the east.										
72	J1	29	5	45	jack pine	sparse		0	other - specify in remarks	
comnts Fmd : Stand treated 1997 sale # 16-97-01. Regeneration is poor. Trench for jack pine and to close short (illegal) access road due to trash dumping.										
83	O9	66	75	50	oak	immature	seed tree	1		
comnts Fmd : Cut all jack pine. Cut all oak over 4". Leave 1 healthy mature black oak every 150'. Green mark white oak to leave.										
84	A6	17	8	50	aspen (upland)	mature	final harvest	1		
comnts Fmd : STAND TREATED 1997 SALE 201-97-02 MERRILL BROS. **1997 sale only allowed for the removal of oak sawlogs. This stand has mature aspen, some log tree red maple, and a small amount of white pine. There is also oak that didn't show up in the plots and wasn't harvested. FINAL HARVEST THIS STAND.										
89	H6	9	75	50	hemlock	mature	selection	1		
comnts Fmd : Small amount of red pine in stand that did not show up in plots. Areas of aspen and red maple. Cut all aspen and red maple. Selectively mark white pine and red pine orange to be removed. In hemlock areas, selectively mark white pine and red pine orange to be removed by handcutting AND MARK GREEN with the amount of top to be left in stand (1/3 to 1/2). Wildlife, with the assistance of forestry, will delimb the tops and place the logs on the ground in hemlock areas to aid in hemlock regeneration.										
90	O8	10	80	50	oak	mature	shelterwood-seed	1		
comnts Fmd : Small amount of red pine in stand that didn't show up in plots. Cut all red pine 12" DBH and over. Cut all jack pine. Do not cut any white oak. Green mark black oak to leave for mast.										
93	O8	5	85	50	oak	in process of regeneration	final harvest	1		
comnts Fmd : NORTHERN EDGE OF STAND COULD NOT BE CUT COMMERCIALY. HAVE WILDLIFE HABITAT CUT IT. Thinned in 1998,sale #63-208-97-01. Spec for sale: Cut all bid spp. EXCEPT oak. Do not cut or damage any red pine and avoid damage to all oak and pine regeneration.										
99	O6	15	80	50	oak	mature	shelterwood-seed	2		
comnts Fmd : Small amount of red pine not in plots. Cut all white pine and red pine. Green mark black oak sawlogs to leave. Leave all white oak.										
102	J6	10	75	50	jack pine	mature	final harvest	3		
comnts Fmd : Green mark oak sawlogs to leave for mast. Small amount of aspen scattered throughtout stand.										
106	J9	18	75	50	jack pine	mature	final harvest	2		
comnts Fmd : Leave 1 healthy oak sawlog tree every 75'. Trench after harvest.										
114	J6	27	79	50	jack pine	mature	final harvest	2	direct seeding	
comnts Fmd : MO and WO saplings scattered throughout stand. Cut all JP. Leave one healthy oak sawlog tree every 75'. Do not cut any oak regeneration under 2.0". 24th Street runs along southern border. Trench and seed after harvest.										
121	J6	45	75	50	jack pine	mature	final harvest	2		
comnts Fmd : Small amount of white oak saplings in the stand. Areas of oak seedlings. Cut all jack pine and oak EXCEPT leave 1 healthy oak every 75'. Cut all red pine and white pine. Trench after harvest. Cut only the upland edge on the northern part of the stand.										
122	J6	6	75	50	jack pine	mature	final harvest	2		
comnts Fmd : Cut all jack pine. Do not cut oak sawlogs 10" DBH and over. Small amount of white pine in stand that didn't show up in plots. Do not cut any oak under 2.0"DBH. Trench after harvest.										
129	J5	2	76	50	jack pine	mature	final harvest	3		
comnts Fmd : Stand is the same as #28. 24th Street borders on the north and Merrillville Rd. borders on the East. 2.5 acres of private land is totally surround by this stand. Do not cut any oak. Dispose?										

**CADILLAC MGT UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 26**

**Entry Year: 2007**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
<b>130</b>	<b>J5</b>	7	76	50	jack pine	mature	final harvest	3		
comnts Fmd : Stand is the same as #28. 24th Street borders on the north and Merrillville Rd. borders on the East. 2.5 acres of private land is totally surround by this stand. Do not cut any oak. Dispose?										
<b>214</b>	<b>J6</b>	13	79	50	jack pine	mature	seed tree	2		
comnts Fmd : MO and WO saplings scattered throughout stand. Cut all JP. Leave one healthy oak sawlog tree every 75'. Do not cut any oak regeneration under 2.0". 24th Street runs along southern border.										
<b>Total Acres.....</b>		<b>752</b>								

**Proposed Treatments  
With Limiting Factors**

**Compartment: 26**

**Entry Year: 2007**

<b>Stand</b>	<b>Cover Type</b>	<b>Acres</b>	<b>Age</b>	<b>Site Index</b>	<b>Mgt Obj</b>	<b>Condition</b>	<b>Method Cut</b>	<b>Harvest Priority</b>	<b>Cultural Need</b>	<b>FD Status</b>
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TREATMENT LIMITING FACTORS:

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Total Acres..... 0

