

CADILLAC FOREST MANAGEMENT UNIT



COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 98 ENTRY YEAR: 2007

Compartment Acreage (GIS Acres): 1,641 County: Missaukee

Revision Date: 10/21/2005 8:16 AM

Stand Examiners: Jason Hartman - Forester

Legal Description: T21N R5W: Sections 1 thru 4

RMU : Mixed Use

Management Goals: Maintain and enhance forest health, wildlife habitat, recreational opportunities, and timber production.

Soil and Topography: Sandy areas contain Rubicon, Croswell, and Kalkaska soils. Wet areas are composed of Histosols and Lupton muck.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The parcel in the southwest quarter of the southwest quarter of section 3 is new ownership. Desirable parcels include private land south of Cadillac Rd. and west of the Muskegon River and the two 80 ac parcels in the south ½ of section 4. The 80 acre parcel in the s1/2 of the se quarter of section 4. This parcel has northern hardwoods covering most of it, which is unique for this area.

Unique, Natural Features: Osprey and massasauga have been identified in areas near the eastern portion of the compartment. A Great Blue Heron rookery was past identified in the dead cedar flooding, but it is no longer present. Eagles are present to the east and northeast and wood turtles are present to the southeast.

Archeological, Historical, and Cultural Features: Indian cemetery, mounds, and prehistoric pits are located in this compartment. Several old homesteads with intact foundations are still present.

Special Management Designations or Considerations: This is one of a complex of compartment in this vicinity that have very similar forest types. Age class distributions should be given more of a landscape consideration than at the compartment level.

Watershed and Fisheries Considerations: The Muskegon River runs southerly through the center of this compartment. The fishery is primarily walleye and northern pike. The standard buffer of 100 feet is requested.

(Jason's comments-The beaver dam in the south-central area of the compartment is flooding and killing the cedar stands to the northwest of the dam.)

Wildlife Habitat Considerations: This compartment is one of three in the original RMU agreement. That agreement called for no major change in cover types. Since that agreement, there has been a net loss in the aspen acreage and a small increase in the red and pine pine acreage. This RMU contains a variety of wildlife habitats, numerous deer yarding areas, and numerous wetland complexes. Maintaining this variety of

habitats at various age classes will continue to provide valuable habitat to numerous game and non-game species. Species of particular interest in this compartment are deer, ruffed grouse, woodcock, turkey, beaver, and bobcat. It is important to retain the oak component in this compartment for mast production.(L.Smith,7/20/05)

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium and fine-textured till. The glacial drift thickness varies between 400 and 600 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 to the northwest and potential is considered to be good on the uplands. South prosper Field is located two miles to the northwest. The field has produced over 1 million BO from the Devonian Dundee Formation. There are no current oil and gas leases in 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.

Survey Needs:

Recreational Facilities and Opportunities: Stratford-Higgins Snowmobile Trail is located this compartment. There are hunting and fishing opportunities in the compartment. Some dispersed camping also occurs within the compartment.

Fire Protection: Mostly hardwoods, with limited amounts of pine. Access should be fairly good for suppression equipment. Bridge load limits may create a problem for equipment. There are some private land within the compartment, which could cause Urban Interface concerns.

Additional Compartment Information: This compartment is within a notorious firewood theft area. Treatments in section 1 should minimize some of this problem.

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

PERE MARQUETTE STATE FOREST

CADILLAC MGT UNIT

MISSAUKEE COUNTY

COMPARTMENT: 98

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	6	140	38	79	25	67	27	57	16										455
Bog or Marsh	1																		1
Cedar									11	69									80
Grass	33																		33
Jack Pine	1			1	21		1												24
Lowlnd Brush	122																		122
Lowlnd Poplr	1							32											33
Marsh	45																		45
Mx Swmp Cnfr									5	55									60
Oak										6	48								54
Red Pine	6			24		67	82	109					11						299
Spruce Fir					7														7
Swamp Hrdwds	4	6			35			9	3		6	9						126	198
Treed Bog	93																		93
Upland Hdwds									36	23								4	63
Water	49																		49
White Pine					2	3	20												25
Total	361	146	38	104	90	137	130	207	71	153	54	9	11					130	1641

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

PERE MARQUETTE STATE FOREST

CADILLAC MGT UNIT

MISSAUKEE COUNTY

COMPARTMENT: 98

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	455																										455
V Bog or Marsh			1																								1
C Cedar				79							1																80
G Grass					29											4											33
J Jack Pine	1						23																				24
L LowInd Brush									122																		122
P LowInd Poplr										33																	33
N Marsh											45																45
Q Mx Swmp Cnfr												60															60
O Oak														54													54
R Red Pine																299											299
F Spruce Fir																			7								7
E Swamp Hrdwds																				198							198
D Treed Bog																						93					93
M Upland Hdwds																								63			63
Z Water																									49		49
W White Pine																										25	25
Total	456		1	79	29		23		122	33	46	60		54		303			7	198		93		63	49	25	1641

PERE MARQUETTE STATE FOREST

CADILLAC MGT UNIT

MISSAUKEE COUNTY

COMPARTMENT: **98**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	7757 Cds	Hardwood	1652 Cds
Hardwood	1133 Mbf	Hardwood	235 Mbf
Softwood	8858 Cds	Softwood	2188 Cds
Softwood	1364 Mbf	Softwood	145 Mbf
Sum TotVol	21609 Cds	Sum CutVol	4600 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	398
1641			

CADILLAC MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 98

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
7	R9	2	50	65	red pine	immature	thinning	2		
comnts Fmd : low end hdwd site. Probably vvb, but no virburnum seen. Could have waited till next entry to benefit vertically, but still has some defect. Do a light thinning focusing on defect. Wait to pluck poles till next time. Don't open it up too much yet. Great access. Copy of stand 10										
10	R9	32	50	65	red pine	immature	thinning	2		
comnts Fmd : low end hdwd site. Probably vvb, but no virburnum seen. Could have waited till next entry to benefit vertically, but still has some defect. Do a light thinning focusing on defect. Wait to pluck poles till next time. Don't open it up too much yet. Great access.										
17	A6	16	70	55	aspen (upland)	mature	final harvest	2		
comnts Fmd : mark some oak to leave or cut all oak. Don't use the leave all oak spec.										
20	O9	6	85	65	oak	mature	thinning	3		
comnts Fmd : low priority. Mark the high-risk oak to cut. Consider an understory burn. Look at again. Also need origin and SI.										
23	A6	5	63	60	aspen (upland)	mature	final harvest	2		
comnts Fmd : split from stand 21. Not cut when stand 21 was harvested. Leave oak.										
25	E5	6	95	50	swamp hardwoods	sparse	improvement	3		
comnts Fmd : Low priority. Could make a small sale to cut the sawlog size basswood and black ash that are overtopping cedar along the east edge.										
30	C4	1	85	24	marsh	high risk	final harvest	6		
comnts Fmd : Dead cedar. Salvage in progress. Modders Cedar 2 #63-20-05-02										
31	M9	14	75	65	northern hardwood	two aged	selection	2		
comnts Fmd : The only n. hdwd stand in the compartment and rare for the area. Somewhat low SI, but good quality stems. The understory has only a few craplings. Most of the understory stems have decent crowns. Don't clean the understory. Succession has been doing us a favor. Faciliate those processes by girdling aspen. Leave birch. Target red maple and high risk hdwd logs. Treat as same sale with stand 32. Access from south. Acquired land. Landowner to west has some nice hdwds. Potential for more acquisition?										
32	C9	17	85	30	cedar	mature	improvement	3		
comnts Fmd : Cedar doing much better here. SI probably not correct. Remove RM log trees to release overtopped cedar. Sell only the logs and leave tops to provide browse protection for potential cedar regeneration. This will also allow lighter production impact. Same sale with hdwds in stand 31, but make separte units.										
51	A6	3	61	65	aspen (upland)	mature	final harvest	3		
comnts Fmd : winter cut. Try to spread aspen clone into the G-type.										
56	R6	11	43	55	red pine	immature	thinning	1		
58	R6	9	43	55	red pine	immature	thinning	1		
64	M6	11	72	52	northern hardwood	mature	thinning	2		
comnts Fmd : hummcky ground. Winter harvest. spec cut aspen. Mark hdwds and pine to cut. Clean up around aspen clones. Combine sale with stand 65.										
65	F6	7	36	65	spruce-fir (uplands- including upland black spruce)	nonstocked	selection	2		
comnts Fmd : contains a couple small pockets of more mature hemlock and wp. Avoid these areas Pluck high risk rm logs and take balsam needed for access and felling . Shortwood only. Leave ironwood. It is the blue-beech variety. Same sale with stand 64. Low priority. Buffer stream.										
66	R6	10	43	55	red pine	immature	thinning	1		
67	A6	9	48	55	aspen (upland)	sparse	final harvest	3		
comnts Fmd : patchy low quality quaking aspen. Bigtooth has decent form. Good site for jack pine, but housing proximity is too close. Discuss at pre-rev.										

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Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDf Status
69	J6	1	55	55	jack pine	high risk	final harvest	1		
comnts Fmd : Mark a few healthy jack pine to leave for visual concerns and seed source.										
70	A6	10	48	70	aspen (upland)	two aged	final harvest	3		
comnts Fmd : Leave oak. Could hold if we want to treat 42 and not this stand or vice-versa.										
72	J5	1			aspen (upland)	immature	final harvest	0		
comnts Fmd : clump of jack pine in back yard of house. Final harvest to reduce fire hazard. Aspen will likely spread in from stand 70. Might also add some acreage to stand 71- G-type.										
80	R9	23	49	65	red pine	mature	selection	2		
comnts Fmd : Maintain structure. Do not thin from below. Take high risk, defect, and stems that are obviously suppressed. Then look to diameter distribution. Long-term uneven-aged management. Leave a small jack pine component. Overall target residual BA= 80 ft. Same sale with stands 117 and 101.										
88	R9	3	49	65	red pine	mature	selection	2		
comnts Fmd : Maintain structure. Do not thin from below. Take high risk, defect, and stems that are obviously suppressed. Then look to diameter distribution. Long-term uneven-aged management. Leave a small jack pine component. Overall target residual BA= 80 ft. Same sale with stands 117 and 101. Copy of stand 80.										
93	W8	9	54	45	white pine	sparse	selection	3		
comnts Fmd : skewed site index due to bushy growth on dominant white pine. Target these poorer stems and high risk oak. Mark to cut pine and oak and spec red maple and aspen. Long-term oak/pine mgmt. An aspen component can also be maintained. Clean up around aspen clones.										
94	E6	3	72	60	swamp hardwoods	mature	thinning	3		
comnts Fmd : mark to cut high risk and do a crop tree release. Contains some elm										
95	R6	11	110	55	red pine	two aged	selection	1		
comnts Fmd : Prescribed last time, but not cut. Potentially three-aged. Year of origin is for the monarchs. Mark to cut high risk, defect, and obviously suppressed stems. Clean up around oaks. Spec cut red maple and jack pine. Maintain structure where younger patches still have some vigor. Thin in poletimber for u-poles next time. Consider shortwood only.										
101	O8	48	93	55	oak	high risk	shelterwood-seed	2		
comnts Fmd : High risk oak. Firewood theft area. Mark oak to leave and pine to cut. Long-term oak/pine management. Clean up some gaps. A fire burned part of this stand about 30 years ago. Add the northeast part of stand 114 to this trmt.										
104	R9	9	46	70	red pine	immature	thinning	2		
comnts Fmd : thin in same sale with stand 95. Still has some defect. Light thinning. Look at again.										
106	A6	14	45	60	aspen (upland)	mature	final harvest	2		
comnts Fmd : aspen would hold, but we may lose the jack pine before next YOY. Final harvest. Mark some jack pine to leave.										
108	M9	6	75	58	northern hardwood	two aged	thinning	3		
comnts Fmd : same sale with stand 109. Stands were split due to conifer understory. Mark to hdwds cut. Spec cut balsam and aspen. Leave cedar, oak, and any hollow aspen.										
109	M9	5	75	58	northern hardwood	two aged	thinning	3		
comnts Fmd : same sale with stand 108. Mark to hdwds cut.										
113	M6	12	80	45	northern hardwood	low quality	final harvest	3		
comnts Fmd : can be done commercially. Some green ash? Leave oak.										
117	R6	71	64	55	red pine	immature	selection	2		
comnts Fmd : mixed pine - pine/oak management. Mark to cut. Light selection. Clean up suppressed pine around healthy oak. Cut high risk oak. Create some gaps to create another cohort of regeneration.										
401	G0	4			red pine	nonstocked		0	planting	
comnts Fmd : cannot burn for opening maintenace with housing proximity need to control illegal ORV traffic and other persistant illegal uses. Wood pile and garden appear to be in trespass. Trench and plant to red pine or jack pine. Block trail going through the L-type.										

CADILLAC MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

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Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
402	G0	2			grass	nonstocked		0	opening maintenance	
Total Acres.....		391								

comnts Fmd : when stands 56 and 58 are sold use producer to do mechanical opening maintenance. Basically, shear a few jack pine and aspen, leave cherry.

CADILLAC MGT UNIT

**Proposed Treatments
With Limiting Factors**

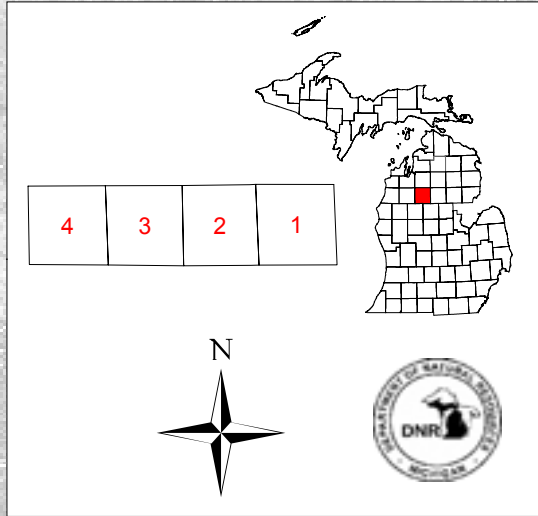
Compartment: 98

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDf Status
115	Q8	5	70	60	mixed swamp conifer	nonstocked	final harvest	3		
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : has some upland islands that could be habitat cut. The aspen is decaying.										
220	A5	4	48	50	aspen (upland)	sparse	final harvest	3		
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : habitat cut										
251	A5	1	60	50	aspen (upland)	sparse	final harvest	3		
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : habitat cut										
253	A5	1	60	50	aspen (upland)	sparse	final harvest	3		
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : habitat cut										
260	A8	2	60	50	aspen (upland)	sparse	final harvest	3		
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : habitat cut										
Total Acres.....		13								

Field Map

Compartment 98
 T21N, R5W, Sec. 1-4
 County: Missaukee
 Unit: Cadillac
 YOY: 2007
 Acres: 1,641 GIS Calculated
 Stand Examiner: Jason Hartman
 Map Revised: 10/14/2005
 Map Phase: Pre-review



- Legend**
- Miris Corners
 - County Gravel Roads
 - Forest Roads
 - Trails
 - Powerline
 - Water Features
 - Beaver Dam
 - Natural Material
 - ORV Trails
 - Snowmobile Trails
 - Stand Boundary
 - 015 - Planting/Mechanical, other
 - 026 - Opening Maintenance
 - 100 - Final Harvest
 - 300 - Shelterwood-seed
 - 400 - Thinning
 - 800 - Selection
 - 900 - Improvement
- Name** County Paved Roads
Name County Gravel Roads
Name Forest Roads
Name Trails
Name Water Features

