



**TRAVERSE CITY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 120 ENTRY YEAR: 2007

Compartment Acreage: 1689 County: Kalkaska

Stand Examiner: Patrick Ruppen

Legal Description: T26N R5W Sec. 6 and T26 N R6W Sec. 1,2

Management Goals: The Pere Marquette State Forest Management Plan indicates that management should be habitat/vegetative-wildlife intensive. The direction given is to increase aspen type and decrease northern hardwood type, to focus on aspen management especially for deer and to preserve oak in the vicinity of winter deer cover where oak makes up a portion of another timber type. Recreational enhancements include part of the Cranberry Lake Snowmobile Trail, a designated trail, a portion of the Kalkaska ORV trail and a boat launch and access site at Cranberry Lake.

Soil and Topography: Lupton Muck, Saugatuck Sand & Rubicon Sand. Much of the compartment is low wet ground, containing the Sigma Swamp and the Cranberry Lake Swamp.

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

Ownership within compartment is primarily state but there are three private inholdings. Ownership to the south and west is nearly all state. East of the compartment is private and there is mixed ownership to the north. Private inholdings are rural in nature.

Unique, Natural Features (include only non-site specific and non-sensitive information):

Part of Cranberry Lake is on state ownership as well as part of the Sigma Swamp Deer Yard which is one of the major deer yards in Kalkaska County.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): There is an old logging camp located on the southern border of this compartment called Angling Siding.

Special Management Designations or Considerations: The south 1/2 of the compartment is within the 1984 DMA (20 year lease)

Watershed and Fisheries Considerations: Compartment 120 - The North Branch of the Manistee River, Morrison Creek and an un-named tributary to Morrison Creek, all in section 2, are designated Natural Rivers as part of the Manistee River system. A 175-foot native vegetation buffer is required along the North Branch, while a 100-foot buffer is required along the tributaries. The buffer zone on the North Branch may be larger if a bluff rises from within 175 feet of the river and will be larger on the tributaries if slopes exceed 10%. No clearcutting is permitted within these buffer zones. Limited thinning of "row trees" is permitted in the buffer zone if necessary to convert those areas to a more natural state. Selective cutting is permitted no closer than 50 feet from the edge of the tributaries subject to seasonal, wetland and topographic restrictions.

Stand 58 abuts the North Branch, while stands 53 and 64 are in close proximity to the North Branch. All stands are prescribed for final harvest. No clearcutting cutting may take place in these stands within 175 feet

of the river. The North Branch of the Manistee River and Morrison Creek flow through Compartment 120. The North Branch of the Manistee River and Morrison Creek are both Designated Trout Streams. The North Branch of the Manistee River is one of the best wild brook trout streams in the northwest lower peninsula. The Upper Manistee River is a State-designated Natural River, including the North Branch and Morrison Creek. On the North Branch, the Natural Rivers plan calls for a minimum 175' (more if there's a bluff) buffer from the river.

Cranberry Lake is a 14-acre inland lake located within Compartment 120. It has a small public access site with a gravel boat launch. Cranberry Lake provides fishing opportunity for bluegill, largemouth bass, and northern pike.

Wildlife Habitat Considerations: Most of this compartment falls on an outwash plain (LTA 5149) that is characterized by poorly drained soils. Habitat types found on these wet soils include lowland hardwoods, lowland brush, and lowland conifers. The North Branch of the Manistee River and Morrison Creek flow through the west half of the compartment and add an important riparian component to the area. Parts of the Cranberry Lake and Flowing Well deer yards are found here. Care should be taken to maintain the integrity of this winter thermal cover. Occasional inclusions of dry sandy soil supports aspen and northern hardwoods. These pockets of "upland" habitat scattered within the larger swamp complex provide a benefit for wildlife by increasing the amount of edge between upland and lowland communities. Edge helps to increase species diversity by offering resources from 2 or more different habitat types. Wildlife utilizing these mainly lowland communities include: white-tailed deer, bobcat, black bear, snowshoe hare, alder flycatcher, Eastern milk snake, and wood turtle.

Several stands near the east edge of the Flowing Well deer yard were prescribed by FMFM for final harvest but are most likely unmerchantable. These cuts may be picked up by WLD as winter habitat cuts. A white pine thinning near one section of lowland conifer will benefit deer, hares, and other species by opening up the canopy and stimulating scattered aspen regeneration. This will provide browse as well as maintain species diversity within these stands.

Several openings managed for herbaceous browse are located adjacent to deer yards in this compartment. One rye field, which borders private property, will be converted to a perennial mix which will need less maintenance. Management of the remaining openings will remain unchanged for this entry period.

West of Cranberry Lake is an inclusion of dry sandy soil which supports a mix of aspen, red maple, cherry, oak, and pine. An old opening here, which is being slowly reforested, has been scheduled for hand felling of some woody encroachment, and then burning to stimulate native herbaceous cover. This addition of semi-open habitat will increase the diversity in the area and provide crucial habitat for species like white-tailed deer, northern flicker, rose-breasted grosbeak, hog-nosed snake, and broad-winged hawk.

The very eastern extreme of the compartment bears dry sandy soils (LTA 3121) and supports several different age classes of upland aspen as well as several red pine plantations. An upland brush community of little bluestem, black cherry, and red maple has been prescribed for burning to retain this area in a semi-open condition and to stimulate native herbaceous vegetation.
consider enhancing Snowshoe Hare habitat during timber sales if possible.

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 200 and 400 feet. Beneath the glacial drift is the Mississippian Marshall Sandstone. The Marshall was previously used as a building stone. The nearest gravel pit is located 2.5 miles to the east, but there

should be potential on the uplands. This area is located six miles southwest of the Niagaran reef trend. There are no leases currently in the Compartment, but leases are located to the south.

Vehicle Access: Sunset Road passes through the compartment and is a moderately traveled county road. Kniss Road follows the south boundary and Cranberry Lake road gives access to Cranberry Lake boat launch. There are not many interior roads due to the low/wet ground conditions.

Survey Needs: None

Recreational Facilities and Opportunities: Hunting & fishing are the main forms of recreation in this compartment. Snowshoe hare, deer, bobcat, and bear hunting occur frequently in the swamps of the area. Parks & Recreation Division provides an access site on the north side of Cranberry Lake. There is a Director's Order prohibiting camping at this location. The Kalkaska ORV Trail runs north-south through the compartment. The Cranberry Lake Snowmobile Trail runs along the entire east boundary.

Fire Protection: This area is protected by the Kalkaska DNR Field Office as well as Stations 6 and 8-township fire departments.

Additional Compartment Information:

****** Cover type details, proposed treatments and stands designated as FDF are listed in the attached reports:**

- 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 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

TRAVERSE CITY FOREST MGT UNIT

KALKASKA COUNTY

COMPARTMENT: 120

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		84	154	67	100	82	11	12										6	516
Black Spruce								18		58									76
Bog or Marsh	15																		15
Cedar									3	49									52
Grass	27																		27
Hemlock										7									7
Lowlnd Brush	85																		85
Lowlnd Poplr									5										5
Marsh	23																		23
Mx Swmp Cnfr								27	51	44	27								149
Paper Birch								8											8
Red Pine						32	5	11											48
Spruce Fir							12			5									17
Swamp Hrdwds					6	55		12	72	16	31								192
Treed Bog	44																		44
Upland Brush	84																		84
Upland Hdwds		23			6		43	59	16										147
Water	6																		6
White Pine				9			73	14	33			52						7	188
Total	284	107	154	76	112	169	144	161	180	179	58	52						13	1689

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

PERE MARQUETTE STATE FOREST

TRAVERSE CITY FOREST MGT UNIT

KALKASKA COUNTY

COMPARTMENT: 120

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	516																										516
S Black Spruce		76																									76
V Bog or Marsh			15																								15
C Cedar				52																							52
G Grass					27																						27
H Hemlock						7																					7
L Lowlnd Brush									85																		85
P Lowlnd Poplr	5																										5
N Marsh											23																23
Q Mx Swmp Cnfr												149															149
B Paper Birch															8												8
R Red Pine																48											48
F Spruce Fir	7																		10								17
E Swamp Hrdwds																				192							192
D Treed Bog																						44					44
U Upland Brush																								84			84
M Upland Hdwds																									147		147
Z Water																									6		6
W White Pine															8											180	188
Total	528	76	15	52	27	7			85		23	149			8	56			10	192		44	84	147	6	180	1689

PERE MARQUETTE STATE FOREST

TRAVERSE CITY FOREST MGT UNIT

KALKASKA COUNTY

COMPARTMENT: **120**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	7839 Cds	Hardwood	405 Cds
Hardwood	603 Mbf	Hardwood	23 Mbf
Softwood	7749 Cds	Softwood	696 Cds
Softwood	2191 Mbf	Softwood	281 Mbf
Sum TotVol	21176 Cds	Sum CutVol	1709 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	
1689		115	

TRAVERSE CITY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 120 Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
1	R6	20	44	53	red pine	immature	thinning	1		
Wld : 2005 SGG: Concur with FMFM.										
2	U0	14			upland brush	nonstocked		0	opening maintenance	
comnts Fmd : POSSIBLE PRESCRIBED BURN Wld : 2005 SGG: Little bluestem, black cherry, and red maple. Burn to retain area in a semi-open condition and to stimulate native herbaceous vegetation.										
6	W6	8	60	62	red pine	immature	seed tree	2		
comnts Fmd : MAY NEED TO SCARIFY SITE. 2005 pmr- no evidence of this treatment taking place. Follow prescription. Wld : 2005 SGG: Concur with FMFM.										
8	R6	5	55	60	red pine	mature	thinning	1		
comnts Fmd : 2005 pmr. Thin stand by amrking to crown release best trees and manage for diversity. Wld : 2005 SGG: Concur with FMFM.										
14	R6	4	44	43	red pine	immature	thinning	1		
comnts Fmd : 2005 PMR Third row thin 2005. Total BA 180 Wld : 2005 SGG: Concur with FMFM.										
19	W6	33	68	46	white pine	immature	thinning	2		
comnts Fmd : CONGLOMERATE OF MANY SMALL STANDS 1996/mixed up stand Aspen mixed in. Areas of large scattered WP and younger age class mixed in. Section with large red pine and some beech in understory. Thin stand by marking. Remove larger old trees and cut aspen. Thin younger age class. 2005 pmr Areas of large scattered wp and younger age class mixed in. Aspen mixed in as well and a little beech in understory. Heavily stocked. Thin-remove larger trees and aspen. Wld : 2005 SGG: Concur with FMFM.										
27	W6	17	56	53	white pine	immature	thinning	1		
comnts Fmd : 2005 pmr. Areas of larger scattered wp and younger age class. Aspen and rp mixed in. Heavy stocking. Thin to release crop trees and promote species diversity. Wld : 2005 SGG: Concur with FMFM.										
30	R6	8	42	64	red pine	immature	thinning	1		
Wld : 2005 SGG: Concur with FMFM.										
53	P7	5	75	57	aspen (upland)	high risk	final harvest	1		
comnts Fmd : HABITAT CUT FOR WILDLIFE 2005 pmr. Older large aspen most is dead/dying. Some scattered cherry. Prescribed for habitat cut 1995 but wasn't accomplished. .Could be if desired. Not sure about access. Wildlife wants to keep as habitat cut for them to accomplish to regenerate aspen. Wld : Potential wildlife habitat cut. Would be non commercial winter cut.										
58	M5	8	70	55	northern hardwood	low quality	final harvest	1		
comnts Fmd : CUT PORTION SOUTH OF DRAINAGE COMMERCIALY, NORTH HABITAT CUT 2005 pmr 1994 inventory called for treatment but none took place. Ash/aspen/maple/spruce/cedar. 10"avg medium stocking. Spruce/fir and cherry understory. Wld : Potential wildlife habitat cut. Would be non commercial winter cut.										
64	F6	7	53	48	aspen (upland)	immature	final harvest	1	other - specify in remarks	
comnts Fmd : HABITAT CUT IF UNABLE TO CUTCOMMERCIALY Wld : Potential wildlife habitat cut. Would be non commercial winter cut. Cut only deciduous component.										
400	G0	7			grass	nonstocked		0	opening maintenance	
comnts Fmd : RYE FIELDS Wld : Continue annual herbaceous plantings. Nice opening with plenty of edge and near deer yard. -SGG 11/2/05										

TRAVERSE CITY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 120 **Entry Year: 2007**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
406	U0	9			upland brush	sparse		0	opening maintenance	
<p>Wld : Old opening being slowly reforested. Lots of little bluestem present. Hand fell encroaching brush and then burn to stimulate native herbaceous cover.</p>										
430	G0	8			grass	nonstocked		0	opening maintenance	
<p>comnts Fmd : RYE FIELD</p> <p>Wld : This stand has been maintained in annual rye. Suggest we convert this stand to perennial mix which would only need periodic maintenance since this opening borders 160 acres of private property with multiple ownerships. The mailboxes on Jyla Road make this opening appear to be private property. -SGG 11/2/05</p>										
480	G0	9			grass	nonstocked		0	opening maintenance	
<p>comnts Fmd : RYE FIELD</p> <p>Wld : This stand has been converted to a mix of perennial grass and clover and is maintained annually by mowing and fertilizing. Continue this treatment. -SGG 11/2/05</p>										
Total Acres.....		162								

**Proposed Treatments
With Limiting Factors**

Compartment: 120 **Entry Year: 2007**

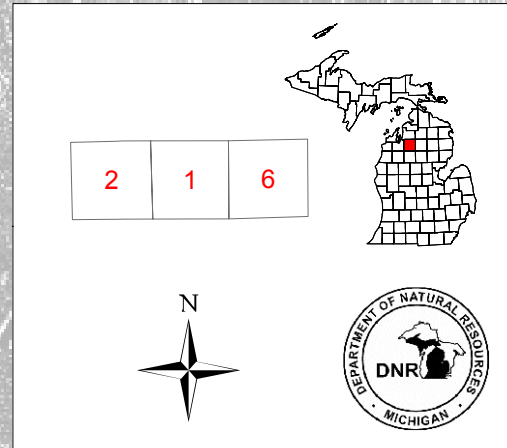
Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
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TREATMENT LIMITING FACTORS:

Total Acres..... 0

Field Map

Compartment 120
 T26N, R5W, Sec. 6
 T26N, R6W, Sec. 1, 2
 County: Kalkaska
 Unit: Traverse City
 YOE: 2007
 Acres: 1,689 GIS Calculated
 Stand Examiner: Patrick Ruppen
 Map Revised: 10/25/2005
 Map Phase: Pre-review



Legend

- Miris Corners
- Paved Roads
- - -** Gravel Roads
- - -** Poor Dirt Roads
- - -** Trails
- Snowmobile Trails
- ORV Trails
- Stand Boundary
- 026 - Opening Maintenance
- 027 - Opening Maintenance/Prescribed Burning
- 100 - Final Harvest
- 191 - Final Harvest/Other/Hand Tools
- 200 - Seed-tree
- 400 - Thinning

Name Public Gravel Roads
 Name Public Dirt Roads
 Name Trails
 Name Water Features

