



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

COMPARTMENT # 128 ENTRY YEAR: 2009

Compartment Acreage: 3129 County: Kalkaska

Stand Examiner: Donna Hagan

Legal Description: T26N, R5W, Sec. 19 & 30 - T26N, R6W, Sec. 23-26 & 35

Management Goals: Visual management along the Manistee River corridor, along with erosion control.

Soil and Topography: Emmet sand, Rubicon and Newton loamy sand, Rifle peat and Lupton muck. Topography ranges from upland, well drained flat to rolling uplands and steep sand bluffs to poorly drained swamps.

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

There is a large private parcel in section 24 and 2 smaller ones just east of that. Another small private parcel in section 35 borders the Manistee River. Also by the Manistee River is a 33 acre parcel that is an acquired Consumers Lease parcel, stands 93 and 94. That lease expires in 2011. Ownership patterns around the compartment are mixed ownership-intermingled state, especially around the south side of the Manistee River and King Road. The North part of the CCC Bridge State Forest Campground falls within this compartment. The land uses in and around the compartment are camping, fishing, snowmobiling, ORVing and hunting.

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

This compartment falls within landtype associations (LTAs) **3121**, **5111**, and **5149** of sub-subsection VII.2.2. **LTA 3121**, which occurs in the northwest portion of the compartment, is characterized by large irregular ice-contact ridges, few kettle lakes, and well drained loamy sand. **LTA 5111**, which occurs throughout the compartment, is characterized by broad flat outwash plains with few kettle lakes and excessively drained sand. **LTA 5149**, which occurs in the southeastern portion of the compartment, is a broad outwash plain with very poorly drained peat or muck.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): None listed.

Special Management Designations or Considerations: The Manistee River and its tributaries are under the Natural Rivers Act and also fall under HCVA (High Conservation Value Area). All prescriptions within 400 feet of the river and tributaries further the conservation goals of these HCVA's. Section 23 is under a 10 year lease to The Department of Military and Veterans Affairs. This 2004 - 10 year lease is a renewable ten year agreement that may be terminated by mutual agreement at any time. The Consumer's Lease parcel (stands 93 and 94), which expires in 2011, has 29 acres of red pine on it. Recommendation would be to thin this stand as soon as the lease expires.

Watershed and Fisheries Considerations: The Manistee River and several unnamed tributaries flow through Compartment 128. All are Designated trout streams. The Manistee River is a nationally-known trout stream with naturally reproducing populations of brook, brown, and rainbow trout. In any operations near these streams, all BMPs and Natural Rivers rules should be followed. Per Natural Rivers rules, the

buffer for the Manistee River should be at least 175' (could be more depending on slopes) and for the tributaries 100' (again could be more depending on slopes).

Wildlife Habitat Considerations: Compartment 128 is located in south central Kalkaska County and is bordered on the south by the Manistee River. Habitat types found within this compartment of State Forest are influenced by three types of glacial formations found here. A large area of outwash plain (LTA 5149) consisting of poorly drained organic soils can be found north of, and along the Manistee River. These wet soils support lowland conifers (Black Creek Deer Yard) and lowland brush communities. The adjacent terrain is of a different type of outwash plain (LTA 5111), consisting of excessively drained sands, which support several red pine plantations, aspen, and upland brush communities. Fire was a major disturbance on these dry soils and should be considered a valuable treatment tool in perpetuating these fire driven ecosystems. The hilly region of this compartment is underlain by steep, broken ice contact ridges (LTA 3121). The sandy soils found on these ridges have moderately low fertility and low available moisture. Even though much of this area was probably once covered with various northern hardwood communities, the dry soils did allow occasional wildfires on this landscape.

Proposed treatments within the lowland complex include some prescribed burning to promote and expand a wet prairie community. Several lowland aspen stands have also been prescribed for harvest. Several annual herbaceous plantings adjacent to this lowland complex will be continued. These plantings provide fall and early spring forage for yarding deer and other wildlife. Many species make use of lowland communities, including: blackburnian warbler, northern saw-whet owl, snowshoe hare, red squirrel, bobcat, and wood frog.

Aspen harvests should be designed to mimic wildfires of various intensities, when possible. This creates a mosaic of age classes and increases structural diversity within an area. The creation of dead and downed logs should be incorporated into timber prescriptions to provide habitat for various wildlife species. Standing dead timber is usually left during harvest operations unless deemed a safety hazard. Important habitat considerations for northern hardwood treatments include, providing for coarse woody debris, promoting diversity of tree species, preserving snags and den trees, and protecting unique features like vernal ponds.

One upland brush stand has been prescribed for burning to set back woody encroachment and stimulate native herbaceous vegetation. A variety of species make use of habitats found on these dry sandy soils, including: Kirtland's warbler, deer, ruffed grouse, smooth green snake, wild turkey, eastern box turtle, and badger. Several small forest openings have been scheduled for hand felling to set back woody encroachment.

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 100 and 400 feet. Beneath the glacial drift are the Mississippian Michigan Formation and Marshall Sandstone. The Michigan is quarried for gypsum and the Marshall was previously used as a building stone. Gravel pits are not located in the area, but there is potential on the uplands. This area is located six miles southeast of the Niagaran reef trend. There are no leases currently in the Compartment, but active leases are located to the north.

Vehicle Access: Major roads within the compartment are Sunset Trail and Riverview Road. Numerous trail roads run off of these roads throughout the compartment.

Survey Needs: None needed at this time.

Recreational Facilities and Opportunities: The north part of the CCC Bridge State Forest Campground, with 8 sites north of the river and 24 sites south of the river, lies within this compartment. One and a half

miles of the Cranberry Lake Snowmobile Trail runs through sections 23 and 26 of this compartment. One and a half miles of the Kalkaska ORV Trail runs through sections 19 and 24 of this compartment.

Fire Protection:

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: 128

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			183	101	352	122	36	4	6										804
Cedar										27						331			358
Grass	52																		52
Lowlnd Brush	559																		559
Lowlnd Poplr								84											84
Marsh	28																		28
Non Stocked						2													2
Oak								3											3
Red Pine		11				667													678
Swamp Hrdwds										14	3								17
Upland Brush	74					1													75
Upland Hdwds																		401	401
Water	68																		68
Total	781	11	183	101	352	792	36	91	6	41	3					331		401	3129

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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: 128

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	804																										804
C Cedar				358																							358
G Grass					52																						52
L Lowlnd Brush									559																		559
P Lowlnd Poplr										84																	84
N Marsh											28																28
X Non Stocked													2														2
O Oak														3													3
R Red Pine															678												678
E Swamp Hrdwds																			17								17
U Upland Brush																								75			75
M Upland Hdwds																								401			401
Z Water																									68		68
Total	804			358	52				559	84	28		2	3	678				17					75	401	68	3129

PERE MARQUETTE STATE FOREST

TRAVERSE CITY FOREST MGT UNIT

KALKASKA COUNTY

COMPARTMENT: **128**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	13511 Cds	Hardwood	4228 Cds
Hardwood	864 Mbf	Hardwood	459 Mbf
Softwood	39093 Cds	Softwood	13671 Cds
Softwood	177 Mbf	Softwood	11 Mbf
Sum TotVol	54686 Cds	Sum CutVol	18839 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	
3129		1085	

TRAVERSE CITY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 128 Entry Year: 2009

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
4	A6	6	71	70	aspen (upland)	mature	final harvest	1		
comnts Fmd : Gate trespass in this stand.										
14	R6	5	42	70	red pine	immature	thinning	1		
comnts Fmd : Timber sale was set up and sold in 1995, #25-95. No cutting occurred, so the sale was closed out and bond was retained.										
16	A6	36	50	75	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : Clearcut with retention. Place retention stand west of private property.										
18	R6	4	42	70	red pine	immature	thinning	1		
comnts Fmd : Timber sale was set up and sold in 1995, #25-95. No cutting occurred, so the sale was closed out and bond was retained.										
23	P5	68	65	56	balsam poplar & swamp aspen and swamp white birch	mature	final harvest	3		
comnts Fmd : To harvest in this area, 2 temporary bridges and up to 7 culverts will be needed.										
25	R6	39	42	65	red pine	immature	thinning	3		
comnts Fmd : To harvest in this area, 2 temporary bridges and up to 7 culverts will be needed. Go into next compartment and pick up the rest of the red pine there if thinning this stand. Maybe 3-4 acres.										
29	R6	12	42	65	red pine	immature	thinning	3		
comnts Fmd : To harvest in this area, 2 temporary bridges and up to 7 culverts will be needed.										
32	L0	7			lowland brush	nonstocked		0	cleaning & weeding	
comnts Fmd :										
33	P5	2	65	56	balsam poplar & swamp aspen and swamp white birch	mature	final harvest	3		
comnts Fmd : To harvest in this area, 2 temporary bridges and up to 7 culverts will be needed.										
34	R6	33	42	65	red pine	immature	thinning	3		
comnts Fmd : To harvest in this area, 2 temporary bridges and up to 7 culverts will be needed.										
38	P5	6	65	56	balsam poplar & swamp aspen and swamp white birch	mature	final harvest	3		
comnts Fmd : To harvest in this area, 2 temporary bridges and up to 7 culverts will be needed.										
39	P5	4	65	56	balsam poplar & swamp aspen and swamp white birch	mature	final harvest	3		
comnts Fmd : To harvest in this area, 2 temporary bridges and up to 7 culverts will be needed.										
40	P5	4	65	56	balsam poplar & swamp aspen and swamp white birch	mature	final harvest	3		
comnts Fmd : To harvest in this area, 2 temporary bridges and up to 7 culverts will be needed.										
44	R6	38	42	65	red pine	immature	thinning	3		
comnts Fmd : To harvest in this area, 2 temporary bridges are needed and up to 7 culverts to harvest the rest.										
51	R6	9	42	65	red pine	immature	thinning	3		
comnts Fmd : To harvest in this area, 1 temporary bridge is needed.										
52	R6	3	42	65	red pine	immature	thinning	3		
comnts Fmd : To harvest most of this stand, 1 temporary bridge is needed. This is right next to CCC State Forest Campground.										

TRAVERSE CITY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 128 Entry Year: 2009

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status	
64	M6	225		62	northern hardwood	unevenaged	selection	1			
comnts Fmd : 2007 - Hagan - A good bit of aspen in the stand. Take the aspen out. No whole tree harvesting in this stand.											
71	U0	56			upland brush	nonstocked		0	opening maintenance		
comnts Fmd : Scattered cherry.											
75	A6	14	35	55	aspen (upland)	immature	final harvest	2	natural regeneration		
comnts Fmd : Do not cut the pine. Pick up addition aspen in adjacent stand in next compartment, 125.											
76	U0	9			upland brush	nonstocked		0	opening maintenance		
comnts Fmd : Scattered cherry, red maple and red pine..											
78	A6	17	35	55	aspen (upland)	immature	final harvest	2	natural regeneration		
comnts Fmd : Do not cut the pine.											
86	A5	1	30	55	aspen (upland)	immature	final harvest	1	natural regeneration		
comnts Fmd : 2007 - Hagan - Aspen within red pine plantation. Cut with red pine.											
87	R6	337	42	51	red pine	immature	thinning	1		stand with fdf potential	
92	R6	27	42	59	red pine	immature	thinning	1			
comnts Fmd :											
99	R6	5	42	59	red pine	immature	thinning	1		stand with fdf potential	
100	R6	21	42	59	red pine	immature	thinning	1		stand with fdf potential	
105	R6	14	42	59	red pine	immature	thinning	1		stand with fdf potential	
111	A5	38	42	50	aspen (upland)	mature	final harvest	1			
comnts Fmd : Clearcut with retention. Place retention along ORV trail. When stand 5 is cut continue retention to the north.											
112	R6	56	42	51	red pine	immature	final harvest	1	planting	stand with fdf potential	
113	R6	10	42	51	red pine	immature	final harvest	1	planting	stand with fdf potential	
114	R6	22	42	51	red pine	immature	final harvest	1	planting	stand with fdf potential	
400	G0	2			grass	nonstocked		0	planting		
comnts Fmd : Rye field. Keep planting to rye.											
401	G0	5			grass	nonstocked		0	planting		
comnts Fmd : Rye field. Keep planting to rye.											
Total Acres.....		1135									

TRAVERSE CITY FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 128 **Entry Year: 2009**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
94	R6	29	42	59	red pine	immature	thinning	1		

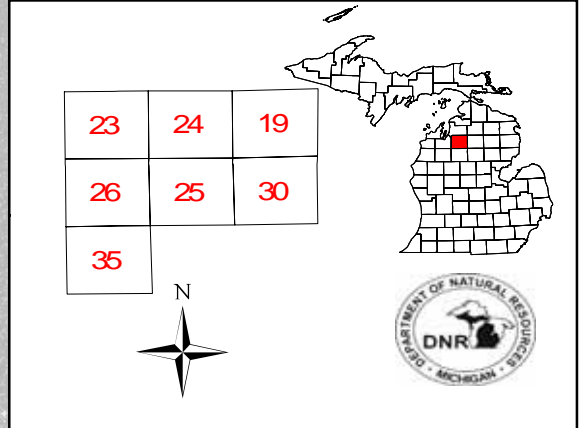
TREATMENT LIMITING FACTORS: Other Dept./Div. procedures or practices (describe in comment)

comnts Fmd : 2007 - Hagan - This stand lies upon a parcel that was purchased from Consumer's Power Company in about 1994. A valid lease is in effect to a private individual until 2011. No timber management will be practiced until after the lease expires.

Total Acres..... 29

Field Map

Compartment: 128
 T26N, R05W, Sec. 19, 30
 T26N, R06W, Sec. 23-26, 35
 County: Kalkaska
 Unit: Traverse City
 YOE: 2009
 Acres: 3,129 GIS Calculated
 Stand Examiner: Donna Hagan
 Map Revised: 10/25/2007
 Map Phase: Pre-review



Legend

- RIs Corners
- Miris Corners
- County Gravel Roads
- Poor Dirt Roads
- Trails
- Water Features
- CCC Bridge State Forest Campground
- ORV Trails
- Snowmobile Trails
- 016 - Planting
- 021 - Opening Maintenance/Hand Tools
- 027 - Opening Maintenance/Prescribed Burning
- 067 - Cleaning - weeding/Prescribed Burning
- 100 - Final Harvest
- 116 - Final Harvest/Planting
- 148 - Final Harvest/Natural Regeneration/Other
- 400 - Thinning
- 800 - Selection
- Stand Boundary

