



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

COMPARTMENT # 106 ENTRY YEAR: 2008

Compartment Acreage: 2335 County: Kalkaska

Stand Examiner: Ken Rouston

Legal Description: T27N R5W, Sections 13, 14, 15, 22, 23 & 24.

Management Goals: Expand and maintain the diversity, health and structural integrity of the cover types that exist in the compartment. Productive timber stands and essential non-timber habitat support a wide range of plants and animals. Diversity should focus upon age classes, cover types and species composition within the forested stands and allowance for a proper mixture of non-forested/semi-open or open areas. Fragile wetland areas and drainages that are predominantly located east of Deward Road in the Deward Tract need protection. The direct perimeter areas or transition zones that are adjacent to these fragile stands are unique and must be evaluated during timber sale preparation, for special consideration whether they are identified as stands or not.

Soil and Topography: The topography in this compartment ranges from flat to slightly rolling to hilly. Poor sandy soils are found in much of this part of Kalkaska County. Soils east of Deward Road are mostly poorly drained loamy sands and peat.

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

The state ownership is fragmented in the west two thirds of the compartment. Private lands and development are most prevalent around the lakes and upon the better soils. Sections 13 & 24 are exclusively state owned. Much of the compartment is bounded by other state owned lands. A lone forty acre state owned parcel is found in Section 22 and it is landlocked by private ownership. That parcel should be disposed of since we have no access. In contrast, there are three "forties" and a twenty acre parcel that are landlocked by state lands. These private parcels were listed as desired forest land acquisitions in the Pere Marquette State Forest plan and they should remain on our list of desired properties. Only scattered seasonal development is found scattered through the private forestlands.

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

Bald Eagle, Common Loon and Eastern Massasauga rattlesnake have been documented in the compartment.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):

There is evidence of some old homesteads and lots of old abandoned railroad grades scattered around through the compartment. Otherwise, no listed sites are known to exist in this compartment.

Special Management Designations or Considerations: The portions of Sections 13 and 24 east of Deward Road are part of the Deward Tract which is a special management area. Motorized vehicles are banned from entering the Deward Tract except upon roads that are designated and posted as open for use. Within the Deward Tract is a 42.5 acre area that was proposed as a Pine Stump Preserve to commemorate the 1900's white pine timber stands that once occupied this area. The very southwest portion (+/- 5 acres) of the Pine Stump Preserve falls in Compartment 106 (stand #82).

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Watershed and Fisheries Considerations: The Manistee River flows just to the east of Compartment 106. North Blue Lake, Big Blue Lake, and Bass Lake are within the compartment boundary, although they are not directly bordered by state forest land. North Blue and Big Blue Lakes are stocked with lake trout by MDNR Fisheries Division. The Manistee River in the Deward Tract supports outstanding populations of wild brook and brown trout, and is a Blue Ribbon Trout Stream.

Wildlife Habitat Considerations: :

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 600 and 1,000 feet. Beneath the glacial drift is the Mississippian Coldwater Shale. The Coldwater does not have an economic use. The nearest gravel pit is located one mile to the west and potential is good on the uplands. This area is located in the Niagaran reef trend with many producing wells. The Antrim Shale gas play may be too deep to produce in this area. Most of the Compartment is currently leased for oil and gas development.

Vehicle Access: The road system should be maintained as it is. Summit Road (bisecting sections 14 & 23) is essentially a two track trail but it is a certified county road that is classified as seasonal.

Survey Needs: The majority of the survey corners are in place however, there are a few missing.

Recreational Facilities and Opportunities: The Kalkaska ORV trail and the Blue Bear Snowmobile Trail both wind through Sections 13, 14, 15 and 24. There is a significant amount of mushroom hunting and berry picking activity. Deer hunting pressure is found to be relatively high. The main fishing opportunities exist at Bass Lake and the two Blue Lakes where access is available.

Fire Protection: The timber types in this compartment do not present the potential for a catastrophic fire occurrence. Natural fire breaks in the form of open spaces, lowland brush areas and closed canopy hardwood stands will aid in the control of wildfires. Travel time to the area for initial attack is rather lengthy for DNR equipment but the Blue Lake Township VFD is closeby.

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: 106

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		336		59	131	16	30	89											661
Black Spruce									6										6
Grass	53																		53
Jack Pine								8											8
Lowlnd Brush	223																		223
Mx Swmp Cnfr				133														24	157
Red Pine				208		217	4	22	61										512
Upland Brush	55																		55
Upland Hdwds						173	123	33	55									222	606
Water	16																		16
White Pine						3		16					4					15	38
Total	347	336		400	131	409	157	168	122				4					261	2335

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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: 106

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	661																										661
S Black Spruce		6																									6
G Grass					53																						53
J Jack Pine																									8	8	
L Lowlnd Brush									223																		223
Q Mx Swmp Cnfr												157															157
R Red Pine	168													56	270											18	512
U Upland Brush																							55				55
M Upland Hdwds																								606			606
Z Water																									16	16	
W White Pine																										38	38
Total	829	6			53				223			157		56	270								55	606	16	64	2335

PERE MARQUETTE STATE FOREST

TRAVERSE CITY FOREST MGT UNIT

KALKASKA COUNTY

COMPARTMENT: **106**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	13246 Cds	Hardwood	2616 Cds
Hardwood	1033 Mbf	Hardwood	369 Mbf
Softwood	10997 Cds	Softwood	3552 Cds
Softwood	2041 Mbf	Softwood	1165 Mbf
Sum TotVol	30391 Cds	Sum CutVol	9236 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	724
2335			

TRAVERSE CITY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 106 Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
2	M6	81	55	55	northern hardwood	immature	selection	3		
comnts Fmd : 2005 kgr comments: Northern Hardwood stand featuring Sugar Maple. There is some Beech, Basswood and Aspen mixed in the stand. Lots of small dbh timber. Pockets with a fair amount of Aspen. It will be going to a lot of trouble to remove the aspen. Rolling terrain. Stand is bounded on the south by a pipeline and is bisected by a Snowmobile Trail. There is also a pipeline/trail road along the east edge of the stand. 1995 Comments: CUT THE ASPEN CLONES IN TEN YEARS										
3	M6	3	55	55	northern hardwood	immature	selection	3		
comnts Fmd : 2005 kgr comments: Northern Hardwood stand featuring Sugar Maple. There is some Beech, Basswood and Aspen mixed in the stand. Lots of small dbh timber. Pockets with a fair amount of Aspen. It will be going to a lot of trouble to remove the aspen. Rolling terrain. Stand is bounded on the north by a pipeline and by private land on the south. 1995 Comments: CUT THE ASPEN CLONES IN TEN YEARS										
4	R6	6	45	58	red pine	immature	thinning	1		
comnts Fmd : 2005 kgr Comments: This is a Red Pine plantation with North/South rows. The stand is bounded on the north side by the Snowmobile Trail/pipeline. Stand needs to be row thinned. Remove every third row.										
5	R6	41	45	58	red pine	immature	thinning	1		
comnts Fmd : 2005 kgr Comments: This is a Red Pine plantation with North/South rows. The stand is bounded on the south by the Snowmobile Trail/pipeline. Stand needs to be row thinned. Remove every third row.										
6	A4	5	56	51	aspen (upland)	sparse	final harvest	2		
comnts Fmd : 2005 kgr comments: Quaking Aspen pocket growing in a low area between the plantations. Aspen is in poor condition and may regenerate if harvested now. Stand is wet and may flood more heavily once these trees are cut. Regenerating this stand could be a bit of a risk. There is good wildlife cover here now which is especially valuable since it is positioned between the plantations. The stand is bounded on the south by the pipeline/snowmobile trail. Old site index information was used.										
7	R6	22	45	58	red pine	immature	thinning	1		
comnts Fmd : 2005 kgr Comments: This is a Red Pine plantation with North/South rows. The stand is bounded on the south by the Snowmobile Trail/pipeline and the east side is up against Blue Lake Road.. Stand needs to be row thinned. Remove every third row.										
8	A4	7	56	51	aspen (upland)	sparse	final harvest	2		
comnts Fmd : 2005 kgr comments: Quaking Aspen pocket growing in a low area between the plantations. Aspen is in poor condition and may regenerate if harvested now. Stand is wet and may flood more heavily once these trees are cut. Regenerating this stand could be a bit of a risk. There is good wildlife cover here now which is especially valuable since it is positioned between the plantations. The stand is bounded on the north by the pipeline/snowmobile trail and the south boundary is against private land. Old site index information was used.										
9	R6	18	45	58	red pine	immature	thinning	1		
comnts Fmd : 2005 kgr Comments: This is a Red Pine plantation with North/South rows. The stand is bounded on the north side by the Snowmobile Trail/pipeline, the south side is against private land and the east side is along Blue Lake Road. Stand needs to be row thinned. Remove every third row.										
17	A6	20	64	63	aspen (upland)	immature	final harvest	1	natural regeneration	
comnts Fmd : 2005 KGR stand exam comments: Snowmobile trail/pipeline is the south boundary the stand. North and west sides of the stand are private property. Stand contains plenty of Aspen in many areas. Clearcut these Aspen dominated areas. Leave pockets that are pure hardwoods. Stand varies considerably from mixed aspen/hardwood, to heavy hardwood, to heavy aspen. Lots of small dbh stems. Many places, the stand is not uniform spacing and there are lots of multiple stem clumps. Terrain is rolling to hilly.										
20	A6	40	64	63	aspen (upland)	immature	final harvest	1	natural regeneration	
comnts Fmd : 2005 KGR stand exam comments: Snowmobile trail bisects the stand. Stand contains plenty of Aspen in many areas. Clearcut these Aspen dominated areas. Leave pockets that are pure hardwoods. Stand varies considerably from mixed aspen/hardwood, to heavy hardwood, to heavy aspen. Lots of small dbh stems. Many places, the stand is not uniform spacing and there are lots of multiple stem clumps. Terrain is rolling to hilly.										
29	A6	14	64	63	aspen (upland)	immature	final harvest	1	natural regeneration	
comnts Fmd : 2005 KGR stand exam comments: Stand contains plenty of Aspen in many areas. Clearcut these Aspen dominated areas. Leave pockets that are pure hardwoods. Stand varies considerably from mixed aspen/hardwood, to heavy hardwood, to heavy aspen. Lots of small dbh stems. Many places, the stand is not uniform spacing and there are lots of multiple stem clumps. Terrain is rolling to hilly.										
30	A6	9	64	63	aspen (upland)	immature	final harvest	1	natural regeneration	
comnts Fmd : 2005 KGR stand exam comments: Stand contains plenty of Aspen in many areas. Clearcut these Aspen dominated areas. Leave pockets that are pure hardwoods. Stand varies considerably from mixed aspen/hardwood, to heavy hardwood, to heavy aspen. Lots of small dbh stems. Many places, the stand is not uniform spacing and there are lots of multiple stem clumps. Terrain is rolling to hilly with a mostly East aspect..										
32	A6	6	64	63	aspen (upland)	immature	final harvest	1	natural regeneration	
comnts Fmd : 2005 KGR stand exam comments: Stand contains plenty of Aspen in many areas. Clearcut these Aspen dominated areas. Leave pockets that are pure hardwoods. Stand varies considerably from mixed aspen/hardwood, to heavy hardwood, to heavy aspen. Lots of small dbh stems. Many places, the stand is not uniform spacing and there are lots of multiple stem clumps. Terrain is rolling to hilly with a mostly East aspect..										

TRAVERSE CITY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 106 Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
33	R6	4	45	56	red pine	immature	thinning	1		
comnts Fmd : 2005 kgr stand exam comments: Red Pine plantation that is mostly polesize now. A few sawlog size stems. Remove every third row now. Caution: The south end of the stand extends onto private land.										
38	R6	21	45	56	red pine	immature	thinning	1		
comnts Fmd : 2005 kgr stand exam comments: Red Pine plantation that is mostly polesize now. A few sawlog size stems. Remove every third row now. Caution: The south end of the stand extends onto private land.										
41	R6	6	45	70	red pine	immature	thinning	1		
comnts Fmd : 2005 kgr stand exam comments: This stand is planted red pine on a rolling hilly site. A trail road bisects the stand and the west side of the stand bounds against private property. Very few sawbolts here, it is mostly pulpwood. Row thin this along with other nearby red pine stands. Rows are distinguishable but many places are confusing and may need judgement calls by the harvester or marker. Not sure that we have access rights on the existing trail road across the private land.										
43	R6	1	45	70	red pine	immature	thinning	1		
comnts Fmd : 2005 kgr stand exam comments: This stand is planted red pine on a rolling hilly site. It is an extension of the larger pine stand located a few chains north and west of here. The south boundary of the stand is against private property. Very few sawbolts here, it is mostly pulpwood. Row thin this along with other nearby red pine stands. Rows are distinguishable but many places are confusing and may need judgement calls by the harvester or marker. Not sure that we have access rights on the existing trail road across the private land.										
48	R8	152	19	60	aspen (upland)	two aged	delayed removal	2		
comnts Fmd : 2005 KGR stand exam comments: Stand was cut in the late 1980's. All except Red Pine was cut. There is a good stocking of Quaking Aspen regeneration. Lots of Red Pine seedlings and saplings are coming in beneath the residual Red Pine log trees. Jack Pine, Oak and White Pine can be found in the stand in places. Some areas will convert to oak. Not attempting to manage for Red Pine due to the intense competition from aspen and other species that are already established. Remove the merchantable Red Pine now. Snowmobile Trail/ORV Trail & ORV Route all bisect this stand. Terrain within this stand is flat.										
49	R9	61	71	63	red pine	two aged	selection	2	natural regeneration	
comnts Fmd : 2005 KGR stand exam comments: Stand was cut in 1987 when all except Red Pine was removed. Some areas have good advanced oak regeneration beneath the Red Pine overstory. Lots of Red Maple sprouts too. Stand needs to be marked. Basal area varies from 160 - 20 square feet. Reduce residual Red Pine BA to about 40 square feet in an effort to promote more of the oak seedlings. A classic example of the use of pine overstory to nurse along oak seedlings in the understory.										
50	R7	56	19	55	oak	immature	delayed removal	1		
comnts Fmd : 2006 KGR stand exam comments: Stand was cut in 1987. All was curt except Red Pine. There is good advanced oak regeneration in place along with some natural red pine regeneration in places. There is also a lot of stump sprouted Red Maple and Cherry and some scattered patches of Aspen regeneration. Some Jack Pine is mixed in too. Basal Area of merchantable timber varies from 70 - 10 square feet. Stand could hold for 10 more years.										
51	J6	8	61	48	white pine	mature	selection	2	natural regeneration	
comnts Fmd : 2005 KGR stand exam comments: This stand is difficult to type. Clearly, the jack pine is old and needs to come out. Prescription is to remove all jack pine, red maple and aspen now. Leave all other species. Some oak component and lots of Red Pine and White Pine along the East edge. Various species of regeneration in place now. New stand will be mixed and will evolve from the natural regeneration that is already in place and from the spouts and stump sprouts that will evolve after the harvest. A mixed composition will be acceptable as long as the stocking is at least in the medium category. The stand is within the Deward Tract.										
56	R6	4	48	66	red pine	immature	thinning	2		
comnts Fmd : 2005 KGR stand exam comments: Red Pine that appears to have been planted but rows were not obvious. Do not row thin this stand. This must be an individual tree marking sale with some extra thought required regarding placement of skid roads and which trees to remove since we should strive to achieve the appearances of a stand that developed naturally and try to promote the white pine seedlings so that they develop. This stand is within the Deward Tract.										
60	R6	60	44	70	red pine	immature	thinning	1		
comnts Fmd : 2005 KGR stand exam comments: Red Pine plantation that is ready for row thinning. Remove every third row using care not to open up a travel route into the stand from Cameron Bridge Road. Leave trees at the ends of the rows so vehicles cannot access the stand. Rows are clearly visible so the sale can be set up using a specification rather than marking the individual rows with paint. Some areas have lots of sawlog sized trees and others are mostly pulpwood size stems. No Clearcut here since there is some sparsely vegetated area along the West and North edges of this stand. Another factor is that this stand is in the Deward Tract and there is not much timber in the south part of this special management unit.										

TRAVERSE CITY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 106 **Entry Year: 2008**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
62	R6	6	44	70	red pine	immature	thinning	1		
<p>comnts Fmd : 2005 KGR stand exam comments: Red Pine plantation that is ready for row thinning. Remove every third row using care not to open up a travel route into the stand from Cameron Bridge Road. Leave trees at the ends of the rows so vehicles cannot access the stand. Rows are clearly visible so the sale can be set up using a specification rather than marking the individual rows with paint. Some areas have lots of sawlog sized trees and others are mostly pulpwood size stems. No Clearcut here since there is some sparsely vegetated area along the West and North edges of this stand. Another factor is that this stand is in the Deward Tract and there is not much timber in the south part of this special management unit.</p>										
65	R6	18	61	48	white pine	mature	selection	2	natural regeneration	
<p>comnts Fmd : 2005 KGR stand exam comments: This stand is difficult to type. Clearly, the jack pine is old and needs to come out. Prescription is to remove all jack pine, red maple and any aspen now. Leave all other species. Some oak component and lots of Red Pine and White Pine along the East edge. Various species of regeneration in place now. New stand will be mixed and will evolve from the natural regeneration that is already in place and from the spouts and stump sprouts that will evolve after the harvest. A mixed composition will be acceptable as long as the stocking is at least in the medium category. The stand is within the Deward Tract.</p>										
79	R8	6	45	60	aspen (upland)	two aged	delayed removal	2		
<p>comnts Fmd : 2005 KGR stand exam comments: Stand is mostly Red Pine and White Pine. Some stocking of Quaking Aspen regeneration. Red Pine seedlings and saplings are coming in beneath the residual Red Pine log trees. Jack Pine, Oak and White Pine can be found in the stand in places. Remove the merchantable Red Pine and White Pine now. Terrain within this stand is flat.</p>										
80	R8	10	45	60	aspen (upland)	two aged	final harvest	2		
<p>comnts Fmd : 2005 KGR stand exam comments: Stand lies north of trail road. Some Red Pine seedlings and saplings are in place. Jack Pine, Oak and White Pine can be found in the stand in places. Some areas will convert to oak. Terrain within this stand is flat.</p>										
Total Acres.....		685								

TRAVERSE CITY FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 106 Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
1	M6	39	56	54	northern hardwood	immature	selection	1		

TREATMENT LIMITING FACTORS: Land survey needed
Adjacent landowner denies access

comnts Fmd : 2005 kgr comments: Northern Hardwood stand that features Sugar Maple. Stand has never been treated. Need to explore disposal of this parcel since it is landlocked by private property. Did not visit this stand. Plot taken in similar appearing stand based on aerial photograph interpretation. Used Site Index of record. Survey would be necessary to launch a timber sale. Only one corner is established.
LANDLOCKED 40, DISPOSE OF IT

Total Acres..... 39

