Gwinn FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION

COMPARTMENT #237 ENTRY YEAR: 2010
Compartment Acreage: 1568 County: Marquette

Revision Date: July 18, 2008

Stand Examiner: Tom Seablom

Legal Description: T45N R28W Sec's 19, 20, and 21

RMU (if applicable):

Management Goals: Management goals range from maintaining and, if possible, improving timber quality and production to improving wildlife habitat as well as protecting water quality. Timber types within this compartment will continue to be managed on an even-aged basis mainly for fiber production with some saw log production occurring on the more productive sites. Managing as such will provide both cover and feed for wildlife.

Soil and Topography: Soil composition ranges from sandy outwash to low peat and muck wetlands. Topography is nearly level to slightly rolling with steep ridges surround bogs and swamps. Soils range from the Rubicon-Keweenaw complex to Greenwood and Dawson peat. Soil productivity is higher in this compartment with respect to the surrounding landscape to the north and west. Soils grade from sands in the west to loamy sands in the east.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Ownership in and around the compartment is almost entirely state land. There are some private parcels within the compartment and a hunting club immediately to the northwest of the compartment. There is no development besides the Flat Rock Road and the old ELF ROW. Land use is in timber production and recreation.

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

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

Special Management Designations or Considerations: There are 10 stands that were designated as potential old growth at the last entry and have been carried forward for review. These stands include: 5, 6, 19, 20, 33, 37, 39, 40, 41, and 69.

Watershed and Fisheries Considerations: The Flat Rock, Whiskey, and Wild West Creek all flow in or around this compartment. Care will be taken when setting up timber sale's to protect the water quality of the creeks.

Wildlife Habitat Considerations: Special Conservation Areas along Flatrock Creek and smaller tributaries that run through this compartment for riparian protection and wildlife corridor. Maintain or increase oak types and strive to increase hard mast production. Try to attain best possible age class distribution in aspen habitat types.

Mineral, Oil and Gas Considerations: Sections 19 - 21, T45N-R28W, Marquette County
Surface sediments consist of coarse-textured till and peat & muck. There is insufficient data to determine the glacial drift thickness. The Precambrian Archean Granite/Gneiss subcrops below the glacial drift. This rock could be used as dimension stone and there is a rock quarry is located in Section 19. Sand and gravel are not known in this area. The abandoned Republic iron mine is located eight miles to the northwest. This Compartment was not previously leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access: Primary access to this compartment is via Co. Rd. CAA (Flat Rock Road). Various two tracks allow access through the remainder of the compartment. Closed roads do exist that will be reopened temporarily for timber sale purposes.

Survey Needs: A survey is required to establish ownership boundary along the private parcel within the compartment as 20 acres were acquired since the last entry period.

Recreational Facilities and Opportunities: No developed recreation exists in the compartment. Potential for snowmobile trail along the old ELF ROW does exist.

Fire Protection: This compartment is located within the South Ishpeming-581 Zone dispatch area. Predominate cover type surrounding the compartment is jack pine. Fire prone species do exist within the compartment but not at the scale as adjacent compartments. The majority of this compartment is dominated by aspen. Adequate roads exist to aid in fire protection within the area.

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

ESCANABA RIVER STATE FOREST | GWINN FOREST MGT UNIT | MARQUETTE COUNTY | COMPARTMENT: **237**

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		42	213	294	190	28			20	2									789
Black Spruce								21	75	98									194
Cedar										12									12
Grass	66																		66
Jack Pine		29	25	5		16													75
Lowlnd Brush	93																		93
Mx Swmp Cnfr								14	20										34
Non Stocked	6																		6
Oak										44									44
Paper Birch									55	5	59								119
Red Pine						59												5	64
Spruce Fir									8										8
Treed Bog	53																		53
Upland Hdwds										10									10
Water	1																		1
Total	219	71	238	299	190	103		35	178	171	59							5	1568

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

ESCANABA RIVER STATE FOREST | GWINN FOREST MGT UNIT | MARQUETTE COUNTY | COMPARTMENT: **237**

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	789																										789
S Black Spruce		194																									194
C Cedar				12																							12
G Grass					66																						66
J Jack Pine							75																				75
L Lowlnd Brush									93																		93
Q Mx Swmp Cnfr												34															34
X Non Stocked													6														6
O Oak														44													44
B Paper Birch	21														75	23											119
R Red Pine																64											64
F Spruce Fir																			8								8
D Treed Bog																						53					53
M Upland Hdwds																										10	10
Z Water																									1		1
Total	810	194		12	66		75		93			34	6	44	75	87			8			53			1	10	1568

ESCANABA RIVER STATE FOREST | GWINN FOREST MGT UNIT | MARQUETTE COUNTY | COMPARTMENT: **237**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY

TOTAL VOLUME		CUT VOLUME	
Hardwood	7623 Cds	Hardwood	3904 Cds
Hardwood	178 Mbf	Hardwood	19 Mbf
Softwood	4392 Cds	Softwood	538 Cds
Softwood	22 Mbf	Sum CutVol	4480 Cds
Sum TotVol	12415 Cds		

Total Cmpt Acres

1568

Acres Proposed For Cut..... 276

GWINN FOREST MGT UNIT | **Proposed Treatments With NO Limiting Factors** | **Compartment: 237** | **Entry Year: 2010**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
13	**B6**	23	76	65	red pine	mature	final harvest	1	planting	

comnts Fmd : Clearcut leaving only oak, herbicide, trench and plant red pine, 2-0 or 3-0 stock at a stocking of approx. 600-650 trees per acre. Hardwood is very poor quality as is birch. There are a few aspen clones within the stand and some scattered oak. Cut no existing red pine.

Wld : Leave the few scattered large oak, white pine and red pine as legacy trees.

17	**R6**	13	44	65	red pine	immature	thinning	1		

comnts Fmd : Row thin every third row. Row's are discernable but some effort will be needed. Crown ratio is 40-50%. Aspen should be left to provide for diversity and retention.

Wld : Leave any oak and white pine if it exists in this stand.

28	**R6**	18	44	65	red pine	immature	thinning	1		

comnts Fmd : Free thin to 120 sq. ft. residual basal area, concentrate removal on smaller diameter stems. Leave aspen for diversity. Try to protect cherry during harvesting.

31	**A6**	28	46	65	aspen (upland)	immature	final harvest	3		

comnts Fmd : 9/18/2009: It was decided to clearcut this stand during the 2010 YOE. Aspen with patches of jack pine (7/9/2008). 43 Acre controled burn on 5-31-1963 to insure regeneration of jack pine. Was commercially cut prior to this burn, permit #9/62; Alfred Millimaki. Completed Nov. 1962, 25 acres cut. Also note that jack pine seed trees were left in this sale (1997 comments).

46	**A6**	54	33	60	aspen (upland)	immature	final harvest	3		

comnts Fmd : It was decided to clearcut this stand during the 2010 YOE.

49	**M6**	10	79	69	white pine	mature	shelterwood-prep	1	planting	

comnts Fmd : This stand is to be clearcut, reserving some white birch and hardwood (30-40 sq. ft) and planted with white pine at a density of 650 trees per acre.

Wld : This stand is comprised of mostly of maple, birch, and aspen, but contains a few large wolf tree oak and scattered pine. Cut no white pine, red pine, or oak, and leave advanced regen of same. Reserve some birch as seed trees. Plant to white pine after harvest.

51	**O6**	44	79	63	oak	immature	shelterwood-seed	1	planting	

comnts Fmd : Remove all birch, aspen, sugar and red maple. Some oak may be harvested for manuverability only if needed. Where the oak is removed use the stump as a center point and open up around it at least 2 tree lengths to allow for stump sprouting to occur and oak to seed in. Underplant with white pine upon completion of harvesting. Wildlife will assist with the marking of this stand.

Wld : (1999 Comments) Per our mini-review held on 6-22-99, it was agreed to drop all oak cuts scheduled for 2000 (even though they were to be intermediate cuts with no actual oak cut), to try to get into better compliance with our Forest Plan which calls for approx. 100 acres of oak type to be treated per year. We are already over this acreage in this decade. (2008 Comments) Stand is heavy to oak type with component of red maple, paper birch, and aspen. Aspen and birch are mature and dying back at tops. Closed canopy stand with little to no regeneration or recruitment except at edges where sunlight stimulates by edge effect. Old white pine stumps are prevalent throughout stand which is evidence of a species long ago removed. By harvesting maple, birch, aspen, and limited oak, we should be able to encourage sunlight penetration to allow for regeneration and recruitment of maple and oak through seed and stump sprouting, increased acorn production as oak will be able to crown out at tops which will also increase trunk diameters, and increase and restore diversity by underplanting with white pine after harvest.

55	**B6**	59	95	58	paper birch	mature	seed tree	1		

comnts Fmd : Seed tree harvest (birch) leaving all oak and any softwood. Cut all maple regardless of merchantability.

Wld : Cut no oak, white pine, or red pine. Protect advanced regeneration of oak and white pine.

61	**A5**	6	76	63	aspen (upland)	mature	final harvest	1		

comnts Fmd : Clearcut this stand retaining any oak (if present). Mark out some of the mature aspen, particularly along the edges, for wildlife trees. Access this stand from the north.

Wld :

64	**B6**	21	76	62	aspen (upland)	mature	final harvest	1		

comnts Fmd : Clearcut this stand leaving some birch where aspen is lacking in stocking. Retain any oak, cut all spruce, balsam fir and red maple regardless of merchantability. Retain 3% by acreage through transition zone protection on the south side and east end of this stand.

Total Acres..... 276

8/31/2009

Proposed Treatments With Limiting Factors

Compartment: 237 **Entry Year: 2011**

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

TREATMENT LIMITING FACTORS:

Total Acres..... **0**

Cover Type and Treatment

Compartment 237
T45N, R28W, Sec. 19, 20, 21
County: Marquette
Unit: Gwinn
YOE: 2010
Acres: 1,568 GIS Calculated
Stand Examiner: Thomas Seablom
Map Revised: 8/25/2009
Map Phase: Post-review

Legend

- Miris Corners
- County Paved Roads
- Paved Roads
- Water Features
- Stand Boundary
- 100 - Final Harvest
- 115 - Final Harvest/Planting/Mechanical, Other
- 200 - Seed Tree
- 311 - Shelterwood - Seed/Planting/Hand Tools
- 400 - Thinning
- 711 - Shelterwood - Prep/Planting/Hand Tools

- A - Aspen
- B - Paper Birch
- C - Northern White Cedar
- D - Treed Bog
- F - Upland Spruce or Fir
- G - Grass
- J - Jack Pine
- L - Lowland Brush
- M - Northern Hardwoods
- O - Oak
- Q - Mixed Swamp Conifers
- R - Red Pine
- S - Black Spruce Swamp
- X - Non-Stocked
- Z - Water