



**GRAYLING FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 242 ENTRY YEAR: 2007

Compartment Acreage: 1744 County: CRAWFORD

Revision Date: 4/28/05

Stand Examiner: Lucas Merrick

Legal Description: T28N R03W Sections: 24, 25 and 36

Management Goals: To provide for military training while improving forest health, productivity, and species/structural diversity by actively managing flora and fauna in sustainable manner using all applicable “best management practices”. Military training has precedence over resource management and recreational activities. Recreational opportunities will be encouraged where they do not conflict with military training needs.

To maintain current oak and aspen cover types and to improve hardwood cover types through various harvesting operations. These prescriptions will benefit the vegetation and the wildlife species associated with them. The planted strips of pine along County road 612 are over mature and need to be addressed.

Soil and Topography: Topography varies from slightly rolling to hilly with areas of swampy lowland. The soils in section 36 are a Tawas-Leafriver-Lupton association. This association is nearly level, very poorly drained with mucky soils and outwash plains found on low flats, depressions, and drainage ways. Sections 24 and 25 are a Rubicon-Kalkaska-Blue Lake association. This association is characterized by broad upland flats, knolls, hills and ridges. These are sandy soils on outwash plains, stream terraces, and remnant moraines.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Approximately 1/3 of the parcels in this compartment are State Military Board Lands. The remainder of state land in the compartment is under the 1935 long term lease agreement (L-1479) with the Michigan National Guard (Department of Military and Veteran Affairs) to provide for military usage with no permanent buildings or improvements to be erected (Act 154, P.A., 1935). Military training has precedence over resource management activities on these lands. The DNR will coordinate all prescribed activities with the National Guard to ensure they are compatible with military training needs.

A small portion of the Military’s Range 40 can be found in the northeast corner of the compartment. This area is fenced and not open to public use. Jones Lake Base Camp which has permanent structures is located in the southeast of section 25. There is approximately 175 acres of private property found in the northwest of section 36 and much of the south ½ of section 25 within this compartment. These vary in size from 40 acre blocks to “small tracts”.

Unique, Natural Features: *Gavia immer* (Common Loon) has been known to exist in this compartment.

Archeological, Historical, and Cultural Features: The town of Hardgrove was abandoned in this compartment over one hundred years ago. There is still some existing evidence of the town throughout the area.

Special Management Designations or Considerations: This area is provided for National Guard training. Jones Lake Base Camp and a portion of the Range 40 impact area are located in this compartment. Range 40 is closed to the public and is bound by a fence. The area is posted and may contain hazardous ordinances. There are scattered firing point locations within the compartment used by different types of military operations for target practice.

Watershed and Fisheries Considerations: The East Branch of the Au Sable River a type 1 trout stream flows through section 36. Hardgrove Lake is found in section 25.

Wildlife Habitat Considerations: The cedar/spruce corridor along the Au Sable River provides a winter deer yard. Upland grouse, snowshoe hare may be found in this compartment and should be acknowledge through management activities where applicable.

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 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. The compartment is 2/3 leased and developed for the Antrim Shale

Vehicle Access: County road 612 splits the compartment. A small portion of a military tank trail is in the southeast of section 36. Vehicle access is limited in the west half of section 36. The rest of the compartment is easily accessible by two-tracks and military trails. No roads have been identified for closure.

Survey Needs: The southeast of section 25. The corners along the private boundary should be re-established prior to timber prep work.

Recreational Facilities and Opportunities: Dispersed recreational use occurs throughout the compartment. There are various hunting, fishing, and gathering opportunities. Hardgrove Lake is not a major fishery but does have a primitive launch in the north.

Fire Protection: Range 40 is found in the Northeast of section 24 and is frequented by fire activity. The majority of cover types found in this compartment however, are not prone to frequent fire events. If a wildfire does occur, Hardgrove Lake, Jones Lake, and the East Branch Au Sable River are water sources available for suppression needs. The west half of section 36 poses several problems for vehicle access.

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**

09/22/2005 9:30:30 AM

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

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

CRAWFORD COUNTY

COMPARTMENT: 242

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			203		122			91											416
Black Spruce										82									82
Cedar										176									176
Grass	140																		140
Jack Pine		13					48		10										71
Local Name	18								6										24
Lowlnd Brush	44																		44
Lowlnd Poplr					2														2
Mx Swmp Cnfr								24		34									58
Oak									27										27
Spruce Fir							14												14
Swamp Hrdwds										57									57
Upland Brush	66																		66
Upland Hdwds																		498	498
Water	28																		28
White Pine							37			4									41
Total	296	13	203		124		99	115	43	353								498	1744

09/22/2005 9:30:38 AM

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

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

CRAWFORD COUNTY

COMPARTMENT: 242

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	378																							38			416
S Black Spruce		82																									82
C Cedar				176																							176
G Grass					140																						140
J Jack Pine							61									10											71
I Local Name								18								6											24
L LowInd Brush									44																		44
P LowInd Poplr										2																	2
Q Mx Swmp Cnfr												58															58
O Oak														27													27
F Spruce Fir																			14								14
E Swamp Hrdwds																				57							57
U Upland Brush																								66			66
M Upland Hdwds																								498			498
Z Water																									28		28
W White Pine																										41	41
Total	378	82		176	140		61	18	44	2		58		27		16			14	57			66	536	28	41	1744

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

CRAWFORD COUNTY

COMPARTMENT: **242**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	13338 Cds	Hardwood	2986 Cds
Hardwood	402 Mbf	Hardwood	79 Mbf
Softwood	4906 Cds	Softwood	626 Cds
Softwood	29 Mbf	Sum CutVol	3770 Cds
Sum TotVol	19106 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	328
1744			

GRAYLING FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 242 Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
1	O6	27	75	62	oak	mature	seed tree	2		
comnts Fmd : Topography will be a concern for equipment (but not limiting). Oak looks good. Aspen over mature. Scattered hdwd through stand. Recommend a seed tree cut. Leave 10 BA of Oak for vertical structure, and a mast/seed source. This cut will maintain the oak component of the stand. The sale will help to expose mineral soil for the remaining seed trees helping to establish regen by acorn, oak that are cut will stump sprout. Most of the other species in stand are also prolific stump sprouters and should have no problem re-establishing in stand. Also, recommend that the Beech (not many) be left. The Beech will provide wildlife habitat and another mast source. Would like to see oak regen but any natural regeneration at full stocking with some oak should be considered an success. Designate boundary around sale area to discourage vehicle use.										
6	M6	193		55	northern hardwood	unevenaged	thinning	2		
comnts Fmd : Excellent looking clumps of basswood. A few cankers in stand but didn't notice any borer damage. Regen in stand is pathetic. Recommend a thinning combined w/ several small 1-4 acre clearcut/regen holes (15-20 acres worth). Try to avoid aspen clones when setting up regen gaps. Purpose of cut is to improve the standing timber and to enhance the stand age and size class diversity. Designate heavier BA along trails to limit vehicle access.										
19	A6	27	59	53	aspen (upland)	mature	final harvest	2		
comnts Fmd : Recommend a final harvest. Leave a buffer along the Q-type to the north (stand 21). Leave pine and oak. The aspen will regenerate quickly and help to prevent snow drift along County Road 612 after the pine rows are cut. There are some scattered logs in stand.										
23	J6	5	75	50	red pine	mature	final harvest	2	planting	
comnts Fmd : PLANTED STRIP ALONG COUNTY ROAD. OVERMATURE TREES CONTINUING TO DECLINE RAPIDLY. LEAVE WHITE AND RED PINE. PLANT BACK TO JACK OR RED. (underplant if stand is not designated for harvest)										
24	I6	6	75	50	red pine	mature	final harvest	2	planting	
comnts Fmd : PLANTED STRIP ALONG COUNTY ROAD (MOSTLY SCOTCH PINE). STAND IN DECLINE. LEAVE WHITE AND RED PINE - A FEW AREAS WHERE RED PINE WAS PLANTED. PLANT BACK TO JACK OR RED. (underplant if not designated for harvest)										
25	J6	5	75	50	red pine	mature	final harvest	2	planting	
comnts Fmd : PLANTED STRIP ALONG COUNTY ROAD. STAND IN DECLINE. PLANT BACK TO JACK OR RED. (underplant if not designated for harvest)										
26	A5	3	30	55	aspen (upland)	immature	final harvest	3		
comnts Fmd : Junk. Chip it. Protect conifer regen. The cut should create an aspen stand w/ a mixed conifer component.										
27	A6	18	59	53	aspen (upland)	mature	final harvest	2		
comnts Fmd : MAJORITY OF ASPEN LOOKS HEALTHY. PURPOSE OF CUT IS TO MAINTAIN ASPEN COVER TYPE. SOME AREAS OF JACK PINE IN STAND.										
37	F5	14	55	36	spruce-fir (uplands- including upland black spruce)	immature	final harvest	2		
comnts Fmd : PUT UP W/ STAND 38. MAJORITY OF STAND ON HIGH GROUND. BUT WILL NEED TO BE A WINTER CUT DUE TO ACCESS. THIS STAND IS STARTING TO FILL IN THE ADJACENT E-TYPE. CUT W/ THE E-TYPE TO PREVENT THE E-TYPE FROM CONVERTING TO AN F-TYPE. CUT ALL FIR AND SPRUCE 2" OR GEATER. STAND SHOULD REGENERATE BACK TO AN F-TYPE WITH SCATTERED HDWD.										
38	E6	30	80	47	swamp hardwoods	mature	final harvest	2		
comnts Fmd : 1995: INACCESSABLE FIR TAKING OVER SOME HAVE BEEN CUT FOR DEER FOOD 2005: Old cutting was on west part of stand. Nice looking E-Type. Stand is more than ready for treatment and the cut would benefit wildlife. Major concerns are access (do not think it is inaccessible) and the proximity to the river. Treatment must be limited to winter months due to wet conditions. Some hemlock and cedar in stand (reserve and protect). Drop some conifer nurse logs around the hemlock. Leave tops if military allows.										

Total Acres..... 328

GRAYLING FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 242 **Entry Year: 2007**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
9	A6	38	65	50	northern hardwood	mature		0	natural regeneration	

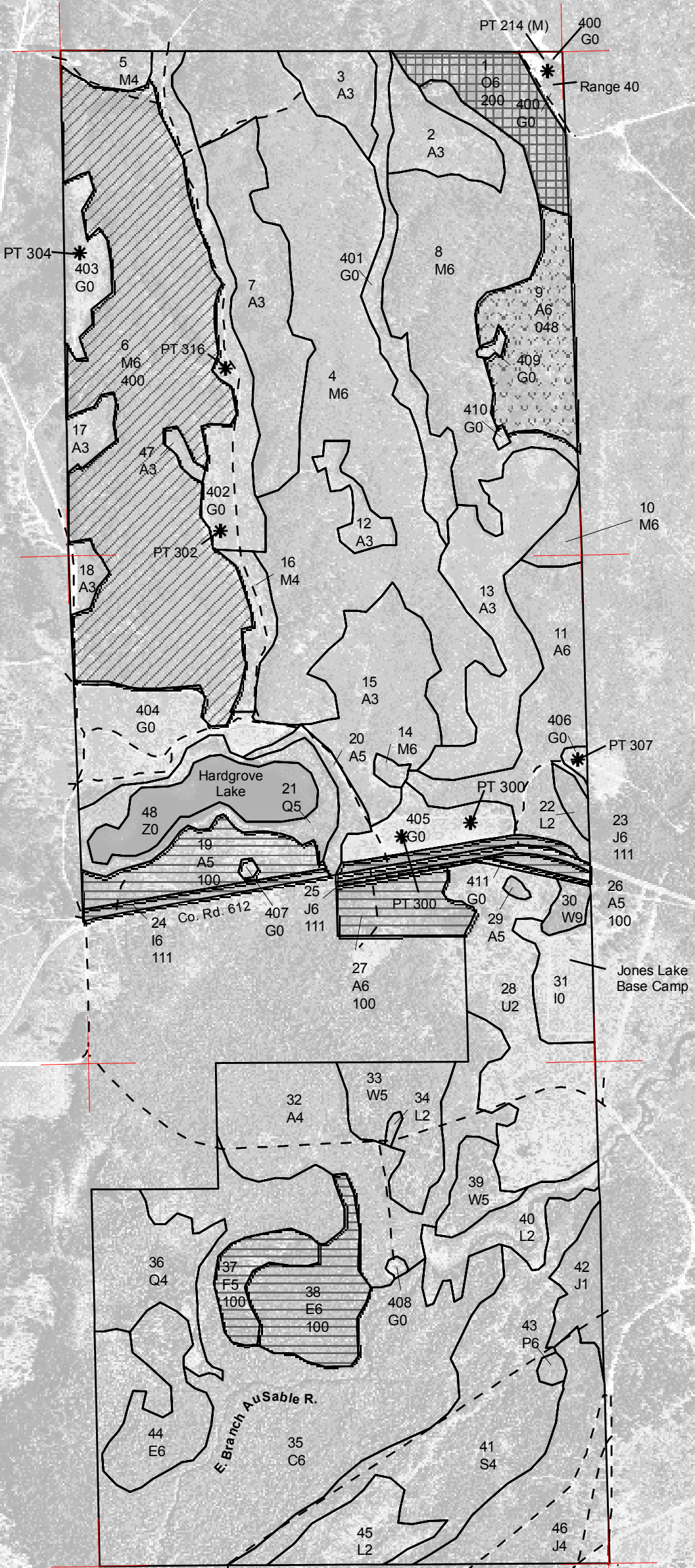
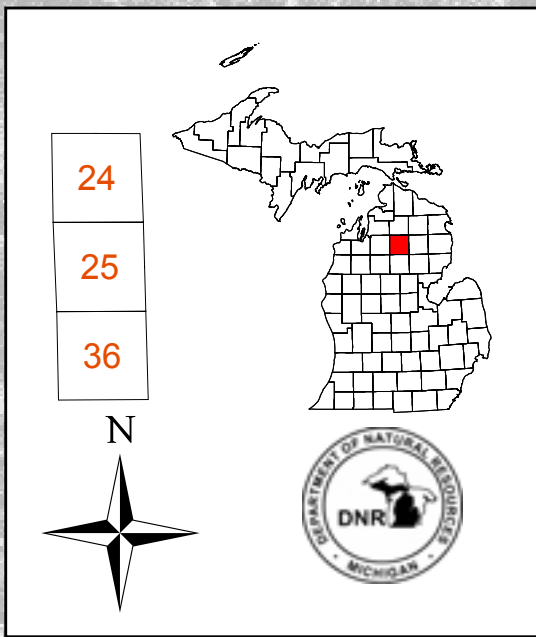
TREATMENT LIMITING FACTORS: Retention of stand for regeneration purposes (ie. shelterwood)

comnts Fmd : this stand has the best hard maple regen in the compartment M2-M3 (5 - 10'). Looks like it was picked through when stand 11 was cut in late 70's. There are pockets of aspen (mostly overmature/poor quality), others of hdwd, some areas of A3, others of M3. Area is kind of a mess. I recommend that we let the hdwd regen better establish and let the aspen fall down. Maybe NYOE what is left in the overstory can be removed.

Total Acres..... 38

Field Map

Compartment 242
 T28N, R3W, Sec. 24, 25, 36
 County: Crawford
 Unit: Grayling
 YOE: 2007
 Acres: 1,744 GIS Calculated
 Stand Examiner: Lucas Merrick
 Map Revised: 9/15/2005
 Map Phase: Pre-review



Legend

- Miris Corners
- - Poor Dirt Roads
- * Firing Points
- Stand Boundary
- ▨ 048 - Natural regeneration/Other
- ▨ 100 - Final Harvest
- ▨ 111 - Final Harvest/Planting/Hand tools
- ▨ 200 - Seed tree
- ▨ 400 - Thinning

Name County Dirt Road

Name Water Features

