



**GRAYLING FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 266 ENTRY YEAR: 2009

Compartment Acreage: 1350 County: Crawford

Revision Date: 3/7/07

Stand Examiner: Patrick Cotant

Legal Description: T28NR2W Sections 22, 23,24 NW Lovells Township

Management Goals: To provide an area that allows for National Guard training while maintaining forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment.

Soil and Topography: Soils within this compartment belong to the Grayling-Klackling complex. This soil association is typical of flats, low knolls, outwash plains and moraines. The soils are well drained, often times excessively drained and have slight hazards for water erosion. Wind erosion can be an issue if the vegetative cover is lost. Major management concerns within this soil complex include equipment limitation, seedling mortality and plant competition.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Ownership within this compartment includes mostly state land. There is an area of county owned land used as a gravel pit. A mix of Military board and lease lands are present throughout the compartment. Numerous firing points exist in this compartment as well, mainly concentrated to the grassy openings. Most of the compartment is under the 1935 long-term lease agreement L-1479 (Act 154 P.A. 1935) with the Michigan National Guard, Department of Military Affairs. The agreement provides for use by the military during their encampment, with no permanent buildings or improvements to be erected. Military needs take precedence over resource management needs on long-term lease lands. The DNR will coordinate all prescribed activities with the National Guard to ensure they are compatible with military training needs.

Unique, Natural Features (include only non-site specific and non-sensitive information): The Lovells Bog lies within this compartment. This is a unique natural land form with many unique and in some cases rare plant species. The area is also used heavily by many species of wildlife. A management plan is being drafted for this ERA. There is potential for dry grass prairie plants in grassy openings such as Hill's thistle, rough fescue, Alleghany plum, and pale agoseris. There is potential for dusted skipper, grizzled skipper, secretive locust, red legged spittlebug, Kirtland's Warbler, and prairie warbler in young jack pine stands. Possible raptors for the area include goshawk, bald eagle, and red shouldered hawk. Within riparian zones one may find blanding's turtle, wood turtle, and common loon. False violet was found near this compartment.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): The compartment has a great deal of military influence.

Special Management Designations or Considerations: Military and the Lovell's Bog ERA

Watershed and Fisheries Considerations: Some small water bodies, mostly bogs with open water existing in the center.

Wildlife Habitat Considerations: This area is used heavily by many species of wildlife throughout the year. There is a great deal of aspen present in the area occupying multiple age classes and therefore a great deal of deer and grouse can be found. Turkey, fox and other small mammals were also observed while field work was being conducted. Numerous birds of prey were seen as well including a bald eagle. Timber management prescriptions have taken these facts into account, along with the heavy use of this area for hunting.

Mineral Resource and Development Concerns and/or Retrictions:

There is no mineral development or leasing in the compartment due to military ownership. Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Coldwater Shale. The Coldwater does not have a current economic use. A gravel pit is located in Section 22, and potential is good on the upland areas. None of the Compartment is currently leased for oil and gas development, but leases are located 1.5 miles to the northeast. The nearest production is from the Antrim Shale to the north.

Vehicle Access: Vehicle access throughout this compartment is plentiful. There is a multitude of 2-tracks traveling throughout the area, along with many maintained roads traversing the sections. All originate from CR612. Due to military training, this area has restricted public access during active training periods. This area is traveled by recreational enthusiasts along with military personnel throughout the year.

Survey Needs: Survey needs are minimal. Some areas where state land adjoins county ownership may need to be looked at, namely the isolated '40' that was prescribed during the last YOE.

Recreational Facilities and Opportunities: This area is used heavily for recreational purposes, notably hunting, bird watching and snowmobiling. Summer recreational activities are limited due to summer training limiting public access to the area. No state-owned trails or facilities exist in this area except snowmobile trail no. 47 runs in the SE corner of section 24 just south of CR612. .

Fire Protection: Adequate access by roads provide ample opportunity for fire protection.

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

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

CRAWFORD COUNTY

COMPARTMENT: 266

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	800																										800
V Bog or Marsh			8																								8
G Grass					96																						96
J Jack Pine							49																				49
N Marsh											37																37
X Non Stocked													2														2
O Oak														273													273
R Red Pine																60											60
U Upland Brush																								22			22
Z Water																									3		3
Total	800		8		96		49				37		2	273		60								22		3	1350

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

CRAWFORD COUNTY

COMPARTMENT: **266**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	8213 Cds	Hardwood	3045 Cds
Hardwood	1400 Mbf	Hardwood	499 Mbf
Softwood	1180 Cds	Softwood	64 Cds
Softwood	335 Mbf	Softwood	56 Mbf
Sum TotVol	12863 Cds	Sum CutVol	4219 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	
1350		190	

GRAYLING FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 266 Entry Year: 2009

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
2	A4	6	45	60	aspen (upland)	low quality	final harvest	1	natural regeneration	
comnts Fmd : THE STAND IS HEAVILY INFECTED WITH HYPOXYLON CANCKER. NEED TO CUT.										
17	A9	9	81	50	aspen (upland)	mature	final harvest	1		
comnts Fmd : Mixed stand of oak and aspen with some red and white pine in understory. Lot's of decline in most species present. Red pine and aspen is of fair quality. There is some scattered large, declining jack pine with some big snags present that are providing good cover and habitat for many species. Some areas are heavier to aspen, again overall quite variable. Some areas of stand are more open with low stocking. Areas of A6/A9. Remove aspen and red maple and maintain oak component for residual. Also protect pine species (white, red and jack) both over and understory size classes. Some aspen should be left to account for retention. Preferably these should be located along CR 612 to provide a more effective visual buffer. Use dead and down creation spec to provide more on the ground woody debris. (old comment) Hold untill next Y.O.E. then remove all aspen and red maple										
18	O9	16	73	48	oak	mature	seed tree	1		
comnts Fmd : Lot's of DWD. Large diameter oak, limby/poor quality in areas, descent relative quality overall. Aspen pockets scattered around stand, definitely a substantial component. Lot's of fuelwood cutting has occurred and has resulted in some areas of thick stump sprout regeneration which makes up the majority of the oak regen present. Lot's of cherry in understory as regen along with some aspen and some red maple. Treat stand by removing all aspen regardless of size. Leave red pine, red maple and 20 BA of best quality oak for resisual following harvest. Protect regen and use dead and down spec to enhance on the ground coarse woody debris. (no old comment)										
25	A6	39	72	67	aspen (upland)	immature	final harvest	1		
comnts Fmd : Fair quality aspen with significant white/red pine component. Dense understory in spots. Aspen beginning to decline in areas throughout stand. Scattered birch and red oak with overall smaller DBH north of 2-track. More pine in north. Fair amount of snags and DWD. Small (<1 ac) pockets of A2/A3. Treat stand by removing aspen and red maple. Leave oak and pine species with 3-5 islands, closer to CR 612, uncut. Islands should be 1-2 acres in size with irregular shapes to enhance edge zones throughout stand. Regeneration will mainly be aspen with some oak, pine and red maple being acceptable. (old comment) HAS MIXTURE OF SOIL SO REGENERATION WILL BE VARIABLE										
27	R9	7	67	61	red pine	immature	thinning	1		
comnts Fmd : THIN TO 90 SQ. FE. OF RESIDUAL BA PENDING APPROVAL BY NATIONAL GUARD.										
53	R9	7	66	63	red pine	immature	thinning	1		
comnts Fmd : Very good quality R9 and great site for red pine. A few small localized areas of pocky damage, mainly on suppressed and smaller diameter red pine within stand. Small amounts of natural regen has dropped in adjacent A3 stand to the east. Stand tapers into adjacent stand to the north and west with some residual red pine being found quite a ways into these stands. I would not prescribe this stand to be final harvested which I am assuming was meant by the old comment, due to the lack of conifer component throughout this compartment. It is also exhibiting superior growth and form. Treat stand by thinning to a BA of 100 square ft/acre. Remove any poorly formed individuals, suppressed individuals and trees with porcupine damage while focusing on even spacing throughout. Stand can be extended to the west to pick up the small pockets of red pine existing in the southern portions of stands 50 and 52. (old comment) CUT NEXT TIME STAND IS ENTER										
55	A6	39	64	54	aspen (upland)	mature	selection	1		
comnts Fmd : REMOVE ALL ASPEN AND RED MAPLE. Houses near by visual management . LEAVE OAK AND PINE										
61	A6	30	61	54	aspen (upland)	immature	final harvest	1		
comnts Fmd : Aspen are declining/falling. Lot's of standing snags and DWD. Numerous oak spalings present with some oak poles and sawlogs sized individuals present, albeit poor quality. Some open areas throughout stand. Lot's of browse. Some hawthorn thickets and sweetfern in these openings. Some areas of low stocking, smaller DBH. Treat stand by final harvesting. Leave oak and some larger diameter aspen for diversity and vertical structure. (old comment) NEED TO BURN GROUND COVER TOCONTROL HYPOXYLON CANCKER										
Total Acres.....		153								

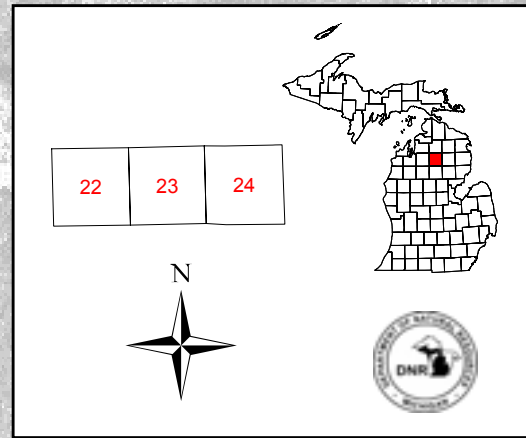
Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
21	A6	37	70	68	aspen (upland)	mature	final harvest	1		

TREATMENT LIMITING FACTORS: Delayed treatment for age/size class diversity

comnts Fmd : Descent oak logs, moreso in eastern side of stand and south of frost pocket. Aspen is declining in some areas, with pockets, mostly on western side of stand, where aspen is growing very well. Scattered paper birch, oak is of variable quality at edges. Some red maple sawlogs. Treat stand by removing aspen and leaving 10-20 BA of oak. This may require marking oak to leave where BA is higher. Also remove red maple, leaving a few of the large sawlog sized individuals in order to maintain and enhance overall diversity. Leave a few paper birch throughout stand to increase diversity and account for retention within stand following harvest. Didn't see much, if any hypoxylon within stand. (old comment) THERE ARE A FEW POCKETS OF HEALTHY ASPEN. MOST ARE SHOWING SIGNS OF DECAY (CONKS, HYPOXYLON CANKER. GREAT SITE FOR ASPEN.

Total Acres..... 37

Compartment 266
 T28N, R2W, Sec. 22-24
 County: Crawford
 Unit: Grayling
 YOE: 2009
 Acres: 1,350 GIS Calculated
 Stand Examiner: Patrick Cotant
 Map Revised: 8/29/2007
 Map Phase: Pre-review



Field Map

Legend

- RLS Corners
- Miris Corners
- County Paved Roads
- Poor Dirt Roads
- Firing Points
- Stand Boundary
- 100 - Final Harvest
- 146 - Final Harvest/Natural Regeneration
- 200 - Seed Tree
- 400 - Thinning
- 800 - Selection

