



**GRAYLING FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 192 ENTRY YEAR: 2007

Compartment Acreage: 1854 County: Crawford

Revision Date: September 7, 2005

Stand Examiner: Craig Farrer

Legal Description: T25N, R04W, Sections 21, 28, and 33. Beaver Creek Township

RMU (if applicable): N/A

Management Goals: To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management.

Soil and Topography: Soils consist primarily of well drained Grayling sands. In the north, topography within the compartment is primarily flat to slightly rolling Jack Pine plains and in the south, gently rolling to steep sand hills of Oak, Aspen and Pine.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is virtually surrounded by state ownership. There is a 40 acre parcel of private land in section 28 and should be placed on the priority acquisition list for the unit in an attempt to consolidate ownership. There is also two private parcels bordering on the north border of the compartment. A majority of the compartment, especially section 21 and 28 are under oil and gas lease and development.

Unique, Natural Features (include only non-site specific and non-sensitive information): Northern shrub thicket exists within the compartment and the potential for Kirtland's Warbler and Prairie Warbler exists within the young Jack Pine in the compartment. There is also the potential for Goshawks in the mature timber throughout the compartment.

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

Special Management Designations or Considerations: Visual management along Fletcher Road corridor is a primary consideration.

Watershed and Fisheries Considerations: The headwaters of Beaver Creek begin in the center of section 28. It is not significant for fish habitat, but streamside management corridor will be maintained along the stream.

Wildlife Habitat Considerations: To manage and maintain existing cover types within the compartment and to improve habitat conditions for a wide variety of non-game and game wildlife.

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 400 and 600 feet. Beneath the glacial drift is the Michigan Formation. The Michigan is quarried for gypsum elsewhere in the State. The entire compartment is leased for oil and gas and part of it is in the Beaver Creek Field. The field has produced over 21 MBO from the Devonian Richfield and over 5 Bcf gas from the Ordovician Prairie du Chien.

Vehicle Access: The compartment can be accessed initially from three main county roads. Seven Mile Road borders the north side of the compartment. Fletcher Road traverses east and west between section 21 and 28 of the compartment and Moorestown Road borders a portion and traverses through a portion of the compartment in the south. The majority of the compartment within its borders is broken up into 40's by trail roads created for fire suppression access and fuel breaks and large portion of these trail roads are now used by oil and gas companies to access well sites developed under lease. No roads have been identified for closure.

Survey Needs: No surveys are needed at this time in and surrounding the compartment. Several registered corners can be found throughout the compartment.

Recreational Facilities and Opportunities: No recreational facilities, such as State Forest Campgrounds and Snowmobile/ORV parking lots exist within the boundary of the compartment. However, several recreational trails traverse through the south portion of the compartment. The recreational trails include the MCCT trail, Beaver Creek ORV trail and the Beaver Creek Snowmobile trail. Other recreational opportunities that exist within this compartment include hunting, mushrooming, wildlife watching and hiking or walking the trail roads.

Fire Protection: This compartment falls under the jurisdiction of the Beaver Creek Volunteer Fire Department and the Roscommon and Grayling DNR. The compartment is designated as a no plow zone area due to its many oil/gas well sites, pipelines and sour gas wells. Cover or fuel types consist of Jack Pine, Red Pine and Aspen of different age classes in the north half of the compartment and Oak, Aspen, Oak/Pine and Red and Jack Pine of different age classes in the south half of compartment. Fire suppression access is not a problem due to the majority of the compartment is dissected 40's surrounded by trail roads. The only major water source within the area is the Beaver Creek Volunteer Fire Station.

LOTS Compartment Acreage: 1880

- **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: 192

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	469																										469
G Grass					62																						62
J Jack Pine							407																			36	443
I Local Name								6																			6
N Marsh											21																21
Q Mx Swmp Cnfr												62															62
X Non Stocked													1														1
O Oak														211													211
R Red Pine																479											479
E Swamp Hrdwds																				24							24
U Upland Brush																								3			3
Z Water																									3		3
W White Pine																										70	70
Total	469				62		407	6			21	62	1	211		479				24				3	3	106	1854

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

CRAWFORD COUNTY

COMPARTMENT: 192

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	4579 Cds	Hardwood	476 Cds
Hardwood	600 Mbf	Hardwood	138 Mbf
Softwood	7544 Cds	Softwood	1050 Cds
Softwood	2353 Mbf	Softwood	878 Mbf
Sum TotVol	18029 Cds	Sum CutVol	3558 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	280
1854			

GRAYLING FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 192 Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	DFD Status
17	R9	38	85	54	red pine	immature	final harvest	1	planting	
comnts Fmd : Mature Red Pine stand. Thinned in winter 1998 (Quigley Red Pine 72-022-97-01) Stand borders Quigley Road on the east side and Hazel Road on the west side. Oil/Gas well on the west side of stand. Also one in the northeast corner of the stand and on the south side of stand. Pipelines run from two track on south side up to the well site through the stand on the west side. Understory is O1/J1 with patches of White Pine regeneration on the northwest side of stand. Ground cover consists of sedges and blueberry. Recommend final harvest and replant to Red Pine.										
23	R9	17	60	55	red pine	immature	thinning	1		
comnts Fmd : Red Pine plantation (planted in close spacing) W2 understory. Ground comver consists of Bracken Fern with some wintergreen and sedge. Recommend marked thinning stand down to 100 BA. Concerns would be oil/gas wells and pipelines. East side of stand borders Alice Road and the south side borders Fletcher Road.										
30	R9	37	85	52	red pine	immature	thinning	1		
comnts Fmd : Red Pine stand mixed with some Jack Pine. North side of the stand borders Fletcher Road and the south sided borders Spade Road. Marney Road cuts through the middle of the stand. Alice and Hazel Roads border the west and east side of the stand. The north side of the stand has more of a Jack Pine component. Stand was previously thinned in 1966 and 20 acres again in 1984 according to old data. Recommend marked thinning, removing all Jack Pine and removing some Red Pine pole and sawtimber. (90BA). Oil/Gas well and pipeline throughout the stand.										
55	R6	27	81	56	red pine	immature	thinning	1		
comnts Fmd : Red Pine stand with an O1 understory. More Maple regeneration in the south end of stand. Hunters Truck Trail passes through the center of the stand east and west. Oil/gas pipeline follows Hunters Truck Trail. Northend of the stand borders a swamp. Recommend marked thinning . Old notes said it was thinned in 75 and 84, but doesn't look that way. Thin stand to 110 BA.										
60	O9	65	90	63	oak	mature	thinning	1		
comnts Fmd : Mix Oak and White Pine stand with a fair amount of Aspen and Red Maple in the north half of stand(north of two track that runs east and west). Level terrain in the north and south facing slope in the south with many ridges and valleys Pockets of M2/A2 scattered throughout the stand. Recommend marked thinning , removing the merchantable Aspen, Red Maple and Oak. Also recommend short wood operation to protect pockets of Aspen/Red Maple/ White Pine regeneration. South end of stand borders two track and powerline. East and west side of stand border two tracks. Thin to 70 BA. According to old data, this stand was thinned in 1963 and in 1968.										
61	O6	19	80	58	oak	two aged	thinning	1		
comnts Fmd : Oak stand that was underplanted to Red Pine. Stand is now a mix of Oak and Red Pine in both pulpwood and sawtimber. Height of Red Pine varies from overstory to understory. W1 understory exists. Ground cover consists of a fair amount of Witch Hazel (medium shrub layer) and vary little sedges and Bracken fern. North side of stand borders Beaver Creek snowmobile trail and powerline. Snowmobile trail cut south through stand. MCCC trail traverses through a portion of the stand. Could manage stand for Red Pine or Oak. Could also manage it for both. Habitat type say its good Pine site. Recommend and marked thinning from below, removing suppressed Red Pine and Oak and favoring good quality Red Pine and Oak stems within the stand. Thin to 70BA and look at spacing also. Place ORV and Snowmobile specifications into the sale.										
71	R9	10	105	52	red pine	old growth (potential or actual)	final harvest	1	planting	
comnts Fmd : 2005 Notes: Mature Red Pine stand with an O2 understory in seedling and saplings. East and south side of stand borders snowmobile trail (). MCCCT trail borders the north west side of the stand. Recommend final harvest and replant to Red Pine. Two other options include thinning stand or leaving stand for Big Tree management.										
73	R6	11	65	52	red pine	immature	thinning	1	other - specify in remarks	
comnts Fmd : Red Pine stand that was thinned in 1976. Stand was possibly planted. South side of stand borders Morsetown Road. Recommend marked thinning to 90BA and underburning to remove duff for natural regeneration of Red Pine. Late summer burn. Treat with stand 77, 74 and 75.										
74	R6	4	65	52	red pine	immature	thinning	1	other - specify in remarks	
comnts Fmd : Red Pine stand mixed with Jack pine. Stand borders Morsetown Road to the south. Recommend marked thinning to remove Jack Pine and Red Maple and than underburn in late summer in the attempt to regenerate Red Pine naturally. O2 understory with some browse to it. Stand is a plantation, can just make out rows within it. Treat with stands 77, 73 and 75.										
75	R6	8	65	52	red pine	immature	thinning	1	other - specify in remarks	
comnts Fmd : Red Pine stand that was planted (barely make out some rows) Stand is mixed with Jack pine (lots of dead Jack Pine) Stand borders Morsetown Road on the north and swamp to the south. Recommend marked thinning stand by removing all Jack Pine and removing and 10 to 20 BA of Red Pine. Under burn following treatment in late summer to attempt natural regeneration of Red Pine. Understory is an F2. Treat with stands 77, 73 and 74.										

GRAYLING FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 192 **Entry Year: 2007**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
77	R9	28	105	52	red pine	immature	thinning	1	other - specify in remarks	
<p>comnts Fmd : Mature Red Pine stand. 150BA. Understory consists of White Pine in the east portion of the stand and o2 in the west portion of the stand. Ground cover consists of Brackent Fern, Wintergreen, Blueberry and some sedges. North west side of the stand borders Morsetown Road. South side of stand is the Roscommon / Crawford count line. Recommend marked thinning stand (removing all Jack Pine, Oak, Aspen and some Red Pine 10-20BA in the larger 14 inch dbh class. Cut with stands 73,74,and 75. Also recommend thinning stand in adjacent compartment (194) stand 9 with this stand.</p>										
81	O9	4	80	58	oak	immature	thinning	1		
<p>comnts Fmd : Small Mature Oak stand that was underplanted to Red Pine. Stand was part of stand 61 last inventory. South side of stand border Beaver Creek snowmobile trail and powerline. Recommend marked thinning to 70BA. Remove Aspen and Red Maple. Remove suppressed Red Pine and Oak. Favor the be quality Oak, Red and White Pine. Look at spacing also. Place snowmobile restrictions into the sale.</p>										
82	O6	6	80	58	oak	mature	thinning	1		
<p>comnts Fmd : Oak Stand with an White Pine understory. White Pine varies from pole size down to seedlings. Two track to the east of stand and two track and powerline north of the stand. Recommend a marked thinning. Thin to 70BA. Thin suppressed Oak from below and release better White Pine poles. Also focus on leaving the best quality Oak and look at spacing. Place snowmobile specifications into the sale.</p>										
83	O9	6	80	58	oak	two aged	thinning	1		
<p>comnts Fmd : Oak stand with an White Pine understory. White Pine varies from pole size down to seedlings. Two track and powerline border north side. Recommend a marked thinning to 70 BA. Remove suppressed Oak, all Red Maple and Aspen if any and thin Oak and Pine to leave the better quality and spacing. Place ORV and Snowmobile specifications into the sale.</p>										
Total Acres.....		280								

GRAYLING FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 192 **Entry Year: 2007**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
54	O9	64	105	60	oak	mature		0	other - specify in remarks	

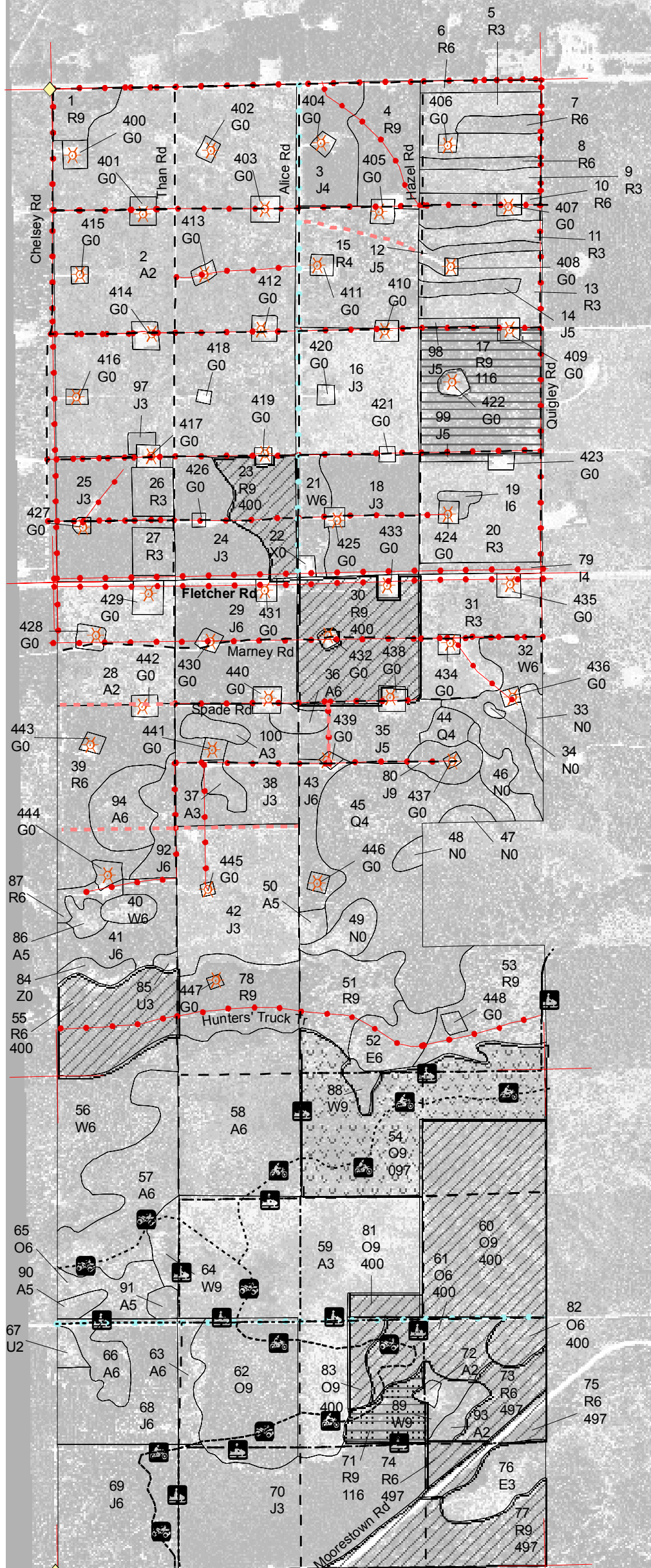
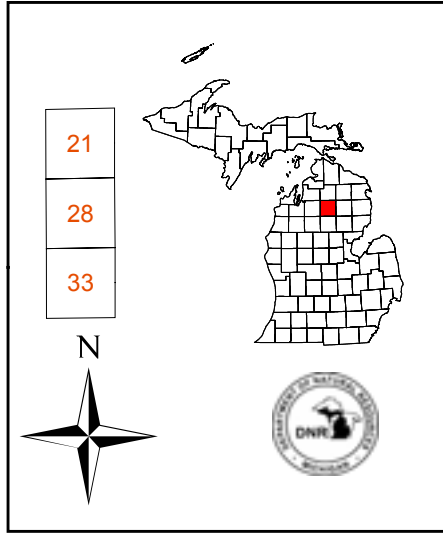
TREATMENT LIMITING FACTORS: Delayed to take advantage of exceptional site quality or growth

comnts Fmd : Cut in 1999 under contract #045-97-01, Hunters Trail Thin. Mature Oak. White Pine left uncut in stand. M2 understory with Braken fern for ground cover. Some sedges present. ORV/CCC trail traverses through a portion of the stand. The Snowmobile trail traverses through a portion of the stand. Recommending a prescribed burn to set back Red Maple.

Total Acres..... 64

Field Map

Compartment 192
 T25N, R4W, Sec. 21, 28, 33
 County: Crawford
 Unit: Grayling
 YOY: 2007
 Acres: 1,854 GIS Calculated
 Stand Examiner: Craig Farrer
 Map revised: 9/26/2005
 Map Phase: Pre-review



Legend

- RLS Corners
- Miris Corners
- Poor dirt roads
- Trails
- Closed Roads
- Powerlines
- Pipelines
- Oil Wells
- Snowmobile Trails
- ORV Trails
- MCCCT Trails
- Stand Boundary
- Biodiversity/Old growth area
- 097 - Other/Prescribed burning
- 116 - Final harvest/Planting
- 400 - Thinning
- 497 - Thinning/Other/Prescribed burning

Name Paved Roads
 Gravel Roads
 Name Poor Dirt Roads

