



**GRAYLING FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 171 ENTRY YEAR: 2008

Compartment Acreage: 1907 County: Crawford

Revision Date: 08/30/2006

Stand Examiner: Mark Montei

Legal Description: T28N R04W Sections 16, 17 & 18. Frederic Township.

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: Section 18 consists of Grayling/Rubicon sands on level terrain. Section 17 consists of gently rolling terrain to steep hills of Kalkaska and Rubicon sands. Section 16 is hilly terrain consisting of Blue Lake loamy sands.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is primarily surrounded by State land. There is some residential development along Deward Road north of the compartment. The area receives heavy recreational use. The area has 13 well sites for oil and gas extraction.

Unique, Natural Features (include only non-site specific and non-sensitive information): The Manistee River (a Natural River) traverses north/south through section 16.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): A portion of section 18 is part of the Deward Management Area. The Deward Tract was designated in 1980 to limit access to and prevent indiscriminate use of ORV's to protect the area along the Manistee River. Today the Deward Tract consists of old foundations and railroad grades. A portion (2 acres) of the Pine Stump Preserve is located in the northwest corner of the compartment. The Pine Stump Preserve is an area that contains a concentration of white pine stumps that were cut around 1900.

Special Management Designations or Considerations: The Manistee River (a Natural River) traverses north/south through section 16. The compartment contains part of the Deward Tract, a Special Management Area.

Watershed and Fisheries Considerations: The Manistee River (a Natural River) traverses north/south through section 16. The Manistee River is a quality trout stream. The river is surrounded by the Deward Management Area. Controlled access points are provided along the river in the Deward Area.

Wildlife Habitat Considerations: There are numerous signs of turkey, deer and grouse. There is a mix of aspen, oak, upland brush, red pine and upland hardwoods in the compartment.

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 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 10 and potential is good in the upland areas. The compartment is leased and partially developed for Niagran reefs and Antrim Shale gas. Thirteen wells (State Frederic VI (sections 16 & 17) and State Frederic XI (section 18) Antrim and Niagran wells) operated by Quicksilver Resources are in the compartment. There is an H₂S well in the SWNE of section 16.

Vehicle Access: Access to the compartment is from Deward Road and from Manistee River Road. Numerous trails traverse the compartment. Many of the trails are for access to the wells. A snowmobile trail traverses through the compartment. There are 5 earthen berms in the compartment to help control access along the Manistee River. Maintain the current status of access in the compartment. All new roads created through management activities are to be closed upon completion.

Survey Needs: No survey needs are anticipated.

Recreational Facilities and Opportunities: The Manistee River (a Natural River) traverses north/south through section 16 and receives use from fishermen and canoeists. The compartment receives use from other dispersed forms of recreation (hunting, etc.).

Fire Protection: The area has five earthen berms in place to limit access to certain areas along the Manistee River. These berms will not severely limit access to fire suppression equipment. The area has a good system of trails for access by the public and access for fire suppression activities. There is a pipeline that traverses section 18 west of the river. There is an H₂S well in the SWNE of section 16. Maintain access in its current status. The closest water source is the Manistee River.

LOTS Compartment Acreage: 1902.

Additional Compartment Information:

None.

- **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: 171

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	487																										487
S Black Spruce		28																									28
G Grass					222																						222
J Jack Pine							32																				32
O Oak														153													153
R Red Pine							9									253											262
U Upland Brush																								81			81
M Upland Hdwds																									631		631
Z Water																									11		11
Total	487	28			222		41							153		253								81	631	11	1907

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

CRAWFORD COUNTY

COMPARTMENT: **171**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	11886 Cds	Hardwood	2464 Cds
Hardwood	776 Mbf	Hardwood	80 Mbf
Softwood	5693 Cds	Softwood	1585 Cds
Softwood	213 Mbf	Sum CutVol	4209 Cds
Sum TotVol	19557 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	475
1907			

GRAYLING FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 171 Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
7	R6	10	52	43	red pine	mature	thinning	2		
comnts Fmd : (RP PLANTATION-BARELY MERCHANTABLE BUT GROWTH RINGS SHOW STAGNATION 2002: Timber sale completed 5-22-02 (Manistee Pine 720539801). Old comment). Mark stand for thinning. 08/15/2006 mm										
8	R6	17	52	43	red pine	mature	thinning	2		
comnts Fmd : (3RD ROW THIN NOW BEFORE NATURAL RIVER DESIGNATION 2002: Manistee Pine completed (0539801). Old comment). Mark stand for thinning. 08/15/2006 mm										
9	R6	46	52	43	red pine	mature	thinning	2		
comnts Fmd : (3RD ROW THIN BEFORE NATURAL RIVER DESIGNATION 2002: completed Manistee Pine (720539801). Old comment). Mark stand for thinning. 08/15/2006 mm										
10	R6	33	52	43	red pine	mature	thinning	2		
comnts Fmd : (3RD ROW THIN DENSE AREAS ONLY, RISK RED MAPLE INVASION 2002: MANISTEE PINE COMPLETED (720539801). Old comment). Mark stand for thinning. 08/15/2006 mm										
11	R6	11	52	43	red pine	mature	thinning	2		
comnts Fmd : (3RD ROW THIN DENSE AREAS ONLY, RISK RED MAPLE INVASION 2002: Manistee Pine (0539801). Old comment). Mark stand for thinning. 08/15/2006 mm										
13	J6	11	48	38	jack pine	mature	final harvest	2	planting	
comnts Fmd : (BARELY MERCH J PINE PLANTATION, THIN IN 10 YRS. Old comment). Final harvest and artifically regenerate to jack pine. 08/15/2006 mm										
14	R6	9	48	46	jack pine	mature	final harvest	2	planting	
comnts Fmd : (HOLD & ROW THIN IN 10 YRS ALONG W. ADJ JP PLANTATION. Old comment). Low site Index for red pine. The stand is not growing well. This is a better site for jack pine. Final harvest and replant to jack pine. 09/08/2006 mm										
15	O6	29	77	52	oak	mature	final harvest	2		
comnts Fmd : (HOLD 10 YRS DUE TO HEAVY CUTTING AROUND STD, E SIDE IS VERY HILLY. Old comment). The management objective is oak but will accept any combination of oak, aspen red maple that will provide for sufficient stocking to meet the regeneration needs of the stand. If the stocking level is determined to be insufficient in the stand (or parts of the stand), the stand (or parts of the stand) will be artifically regenerated to jack pine.										
25	M6	35	65	69	northern hardwood	mature	thinning	2		
comnts Fmd : (VERY HILLY STD, THIN IN 10 YRS WHEN ADJ STD TO SOUTH IN C 172 IS THINNED FOR ACCESS, TERRAIN CREATES ACCESS PROBLEM. Old comment).										
31	R6	15	50	45	red pine	mature	thinning	2		
comnts Fmd : (HODGE PODGE OF RP, OAK, YOUNG T ASPEN, R8/O7/M5. Old comment). Remove aspen and red maple. 08/15/2006 mm										
33	R6	37	48	55	red pine	immature	thinning	2		
comnts Fmd : (3RD ROW THIN 1999 Three piece red pine #043-98-01. Old comment). Mark stand for thinning. 08/15/2006 mm										
37	M6	79	66	70	northern hardwood	mature	thinning	2		
comnts Fmd : (FDF POTENTIAL. Old comment).										
38	R6	11	48	60	red pine	immature	thinning	2		
comnts Fmd : (3RD ROW THIN, INCLUDE PORTION IN ADJ COMPT 170 TO THE NORTH. Done 1999 Three piece red pine #043-98-01. Old comment).										
44	M6	47	47	60	northern hardwood	mature	thinning	2		
comnts Fmd : (ASPEN-HRDWD MIX, POCKETS OF ASPEN MIXED WITH M6/M3, HOLD 10 YRS OLD SI USED, MAY BE LOW, CK IN FUTURE, FDF POTENTIAL. Old comment). Some of the stand is very steep. 08/15/2006 mm										
65	A6	12	50	56	aspen (upland)	mature	final harvest	2		
comnts Fmd : (VARIOUS CLONES OF DIFFERENT AGE T ASPEN AND 1 MATURE CLONE OF BTA INNORTH END, HOLD, SI FROM STDS 57 & 64. Old comment). The management objective is aspen but will accept any combination of aspen, oak, and red maple that will provide for sufficient stocking to meet the regeneration needs of the stand. If the stocking level is determined to be insufficient in the stand (or parts of the stand), the stand (or parts of the stand) will be artifically regenerated to jack pine.										
114	R6	8	48	50	red pine	mature	thinning	2		
comnts Fmd : (3RD ROW THIN W. ADJ STD SOUTH IN COMPT 172. Old comment). Mark stand for thinning. 08/15/2006 mm										

GRAYLING FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 171 **Entry Year: 2008**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
131	R6	30	50	45	red pine	mature	thinning	2		

comnts Fmd : (SEE COMMENTS STD 31. Old comment).

159	M6	35	53	69	northern hardwood	mature	thinning	2		
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comnts Fmd : (HOLD, THIN IN 10 YRS, FDF POTENTIAL. Old comment).

Total Acres..... 475

**Proposed Treatments
With Limiting Factors**

Compartment: 171

Entry Year: 2008

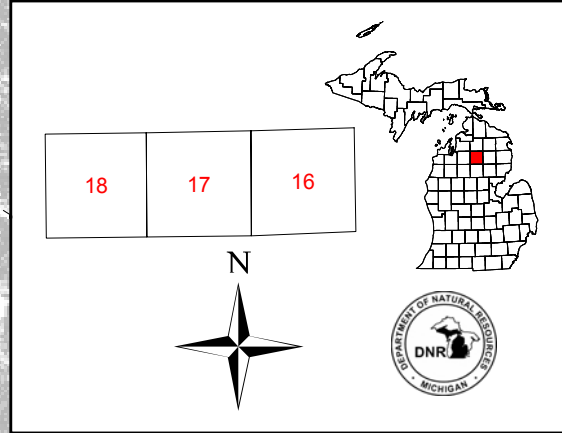
Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
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TREATMENT LIMITING FACTORS:

Total Acres..... 0

Field Map

Compartment 171
 T28N, R04W, Sec. 16-18
 County: Crawford
 Unit: Grayling
 YOE: 2008
 Acres: 1,907 GIS Calculated
 Stand Examiner: Mark Monte
 Map Revised: 10/17/2006
 Map Phase: Pre-review



Legend

- Miris Corners
- Gravel Roads
- Poor Dirt Roads
- Trails
- Pipelines
- Water Features
- Gas Wells
- Berms
- Snowmobile Trails
- Stand Boundary
- 100 - Final Harvest
- 116 - Final Harvest/Planting
- 400 - Thinning

