



GLADWIN FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 05 ENTRY YEAR: 2008

Compartment Acreage: 3714 County: Clare

DRAFT

Revision Date: October 31, 2006

Stand Examiner: Tim Gallagher, Rick Hill, Doug Bates and Tom Haxby.

Legal Description: T20N – R5W Sections 24, 25 & 36.
T20N – R4W Sections 19, 20, 28, 29, 30, 31, 32 & 33

RMU (if applicable):

Management Goals: Continue to manage aspen, oak and jack pine stands to maintain a variety of age classes to enhance deer and grouse habitat. The compartment has a moderate acreage of mature oak and red pine stands most of these stands have had partial harvests in the past 10 to 20 years. Many of the oak stands are being held for shelter-wood regeneration. Two large red pine stands (Stands 64 and 65) have the potential to be managed for oak stands in the future. Both of these stands have had partial harvests in 2001 and are regenerating well to oak under the over story red pine. Stand 27, is an 86 acre mature oak stand on poor sandy Grayling soils which has been prescribed for a final harvest followed by inter planting to red pine to maintain full stocking. Regeneration is a concern with this stand and to deal with that concern the planting has been prescribed.

The state land in this compartment is spread out over 11 sections. The state land is spread out in large contiguous blocks with private lands intermixed resulting in miles of private property lines. Overall the compartment is on average to above average ground with site indices between 55 and 75. There are numerous old railroad grades criss-crossing the area, remnants from the white pine logging era.

Soil and Topography: The area varies from well drained soils in the outwash plains to poorly drained mucky soil as you enter the Floodwood Creek flood plain. The terrain also varies from nearly level to steep. Much of the compartment is flat with rolling hills. The steepest terrain is located in sections 19 and 24. The major soil types are Graycalm-Montcalm associations and Grayling sands associations.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Private holdings are mostly comprised of large forested single holdings with absentee landowners. There are numerous permanent residences scattered through out the entire compartment as well. Many new hunting cabins have been built within the last 10 years and some of the larger blocks of private are now being broken into smaller parcels. There are two subdivisions within the compartment that are directly adjacent to state land. Buck Trails Subdivision is located in section 25, NE ¼ - Airport Forest Subdivision is located in section 33, SW ¼ & south of section 32.

Unique, Natural Features: This area has a variety of rare species that could be or are present including; Red Shouldered Hawk, Eastern Box Turtle, Goshawk, Eagle, Great Blue Heron, Wood Turtle and Blanding's Turtle.

Archeological, Historical, and Cultural Features: None known.

Special Management Designations or Considerations: None known.

Watershed and Fisheries Considerations: Haskel Lake is located in the north west corner of the compartment. A major forested drainage system is associated with the lake. Floodwood Creek bi-sects sections 25, 31 and 36. There is a wide corridor of associated wet lands in the creek bottom lands. Most of the creek bottomlands are seasonally flooded. Beaver are active in both the Haskel Lake Drainage System and the Floodwood Creek Corridor. There are also many scattered low areas that are seasonally flooded and support populations of waterfowl, great blue herons and many non-game species.

Wildlife Habitat Considerations:

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 800 feet. Beneath the glacial drift are the Jurassic Red Beds and the Pennsylvanian Saginaw and Grand River Formations. The Saginaw Formation is used for clay/shale in other areas of the State. Sand pits are located in Sections 32 and 33 and gravel potential is good on the uplands. Cranberry Lake Field is located to the west of the Compartment and part of Section 24 is leased for gas storage. None of the compartment is under lease for oil and gas at this time.

Vehicle Access: Access to most of the compartment is good via the county road system and state two tracks that are in place. For forest management purposes all state land is accessible.

Survey Needs: None

Recreational Facilities and Opportunities: The Fir Farm Snowmobile Trailhead Parking Lot is located in the south west $\frac{1}{4}$ of section 32. From the parking lot the snowmobile trail runs north through the entire compartment. The area receives moderate hunting pressure most of which is deer hunters. Light fishing occurs on Haskel Lake. There is an unofficial beech at the north end of the lake. Moderate dispersed camping occurs mainly during the firearm deer hunting season.

Fire Protection: Development of the private property will increase the wild land /urban interface problem.

Additional Compartment Information: There are several illegal ORV trails in section 32. (Too numerous to map all the ORV trails) Several roads have been proposed to be closed in section 32. As much as possible the ORV trails will be filled in with slash during forest management activities.

There are several timber harvests that will affect the snowmobile trail. If forest products are to be trucked out on the trail in winter month's snow cover must be maintained on the trail. In many areas the snowmobile trail is the only way out with forest products.

There are several forest two track roads adjacent to Haskel Lake both in this compartment and adjacent compartments. BMP issues with some of the roads going up and down steep slopes and through wet areas around the lake is a concern. The first step in dealing with this land use issue should be a comprehensive road inventory of all the two track roads and BMP issues around the Lake across compartment boundaries. BMB and road closures could then be identified and prioritized.

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

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

CLARE COUNTY

COMPARTMENT: 5

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		154	233	289	225	203		14	21	17								32	1188
Grass	82																		82
Jack Pine		31		46	136		39	181	6		8								447
Local Name	1																		1
LowInd Brush	190																		190
LowInd Poplr					21													16	37
Non Stocked	6																		6
Oak		216	152	50			13	31	130	414	65	12						5	1088
Red Pine		97					107	13	144										361
Swamp Hrdwds									9	6									15
Upland Hdwds						7		86		125								33	251
Water	48																		48
Total	327	498	385	385	382	210	159	325	310	562	73	12						86	3714

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

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

CLARE COUNTY

COMPARTMENT: 5

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	1188																										1188
G Grass					82																						82
J Jack Pine							447																				447
I Local Name								1																			1
L LowInd Brush									190																		190
P LowInd Poplr										37																	37
X Non Stocked													6														6
O Oak	27													972	89												1088
R Red Pine															361												361
E Swamp Hrdwds																				15							15
M Upland Hdwds																								251		251	
Z Water																									48	48	
Total	1215				82		447	1	190	37			6	972	450					15				251	48	3714	

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

CLARE COUNTY

COMPARTMENT: 5

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	18260 Cds	Hardwood	6718 Cds
Hardwood	3328 Mbf	Hardwood	1469 Mbf
Softwood	8778 Cds	Softwood	2326 Cds
Softwood	1843 Mbf	Softwood	452 Mbf
Sum TotVol	37380 Cds	Sum CutVol	12886 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	645
3714			

GLADWIN FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 5

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
2	A9	17	85	54	aspen (upland)	mature	final harvest	1		
comnts Fmd : ALONG A COUNTY ROAD, A lot of bigger aspen, Cut all Aspen and red maple. Use green to mark leave islands of oak and pine these islands should be thined to 40 to 50 sf										
12	O6	18	85	60	oak	immature	thinning	1		
comnts Fmd : thin to 60-70 sq. ft.										
14	O6	14	87	61	oak	mature	shelterwood-seed	1	natural regeneration	
comnts Fmd : stand should be cut. Shelterwood to 20 SF and burn with same conditions as stand 13 was.										
22	J6	13	62	41	jack pine	immature	final harvest	1	planting	
comnts Fmd : Clear cut followed by trenching and replanting to jack pine. Results will be a jack pine stand with oak regeneration mixed in as well.										
27	O6	89	86	50	red pine	immature	final harvest	1	planting	
comnts Fmd : This is a poor oak site and for the most part the timber is on the decline. Final harvest followed by interplanting to ped pine to maintain full stocking the resulting regeneration would be a mik of red pine, oak and jack pine. Or heavy shelterwood to 20 sf followed by Rx burn. Mark reserve trees to leave both individually and in groups. Parts of stand are hilly lots of ORV activity.										
34	O9	23	80	40	oak	mature	shelterwood-seed	2		
comnts Fmd : The sawlog size oak overstory has reached its rotation age and then some. Starting to get mortality. The north portion of the stand has a good oak regeneration mix with red pine. The further south this oak regeneration thins out into more jack pine. Shelterwood cut stand down to 40 basal area. Remove oak that will not make future rotations. Snowmobile trail bisects stand.										
36	J9	6	60	46	jack pine	mature	final harvest	2	planting	
comnts Fmd : Parts of Stand 40's red pine fingers into this stand. Sawlog size jack pine is dying and the pole size is not doing best either. Only regeneration in understory is oak. Cut to remove all jack pine, oak, and aspen. Leave large oak along north line for visual diversity and remove red pine down to 10 inches. Interplant with jack pine to keep its stocking level.										
41	J6	27	58	44	jack pine	high risk	final harvest	1	planting	
comnts Fmd : Mortality occuring in all age classes of jack pine down to saplings. Regeneration is mostly hardwood with red maple on the west end and oak on the east. Cut everything to 2 inches to allow jack pine regeneration an even field to take hold. May need to interplant with jack pine to maintain stocking levels.										
42	A9	23	43	75	aspen (upland)	two aged	final harvest	1		
comnts Fmd : Selective clear cut in 1963 has resulted in a two aged stand. Harvest now - manage for a mix of natural regeneration of aspen, Mr and oak. Stand is all upland with rolling hills - Red oak is excellent quality. Mark to leave scattered oak reserve trees both individually and in small groups - Target large crown wolf trees to leave. Core samples: co-dominant aspen 44 yrs. Co-dominant red oak 80 yrs. Leave narrow buffer between powerline and Long Lake Road.										
48	J6	92	60	52	jack pine	mature	final harvest	2	planting	
comnts Fmd : Ready to be cut. Has a six acre pocket in the middle that was Stand 248, but there is little difference now so will manage together. For visual leave a large oak or red pine about one for 4 acres due to the half mile of frontage on Leota Grade Road. Interplant with jack pine to maintain a stocking level.										
50	O9	15	92	57	oak	high risk	final harvest	1		
comnts Fmd : Oak overstory is dying. Need to clearcut down to two inches for all species except oak. Leave all oak 6 inches and less. It is an oak type but has pure aspen inclusions. Parts of stand will come back aspen and not oak. Will be a good mix.										
53	R9	19	69	54	red pine	immature	thinning	1		
comnts Fmd : Harvest all species except red pine. Individually tree mark red pine to reduce red pine BA/AC to 90 sq. ft.										
77	O7	12	70	36	oak	immature	final harvest	1		
comnts Fmd : Good oak regeneration. Remove declining oak overstory to release oak understory.										
90	O6	16	83	54	oak	immature	shelterwood-prep	1		
comnts Fmd : Harvest all maple and aspen, reduce oak residual to 40 to 50 sq. ft. Nice mix in understory O3/Mr1-O2-Mr4. In some areas very little oak will need to be marked.										

GLADWIN FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 5

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDf Status	
91	A6	61	43	75	aspen (upland)	two aged	final harvest	1			
comnts Fmd : Selective clear cut in 1963 has resulted in a two aged stand. Harvest now - manage for a mix of natural regeneration of aspen, Mr and oak. Stand is all upland with rolling hills - Red oak is excellent quality. Mark to leave scattered oak reserve trees both individually and in small groups - Target large crown wolf trees to leave. Core samples: co-dominant aspen 44 yrs. Co-dominant red oak 80 yrs. About 10 acres of O9 at NE corner of stand contains prime red oak.											
100	O9	31	87	60	oak	immature	selection	1			
comnts Fmd : Individual tree mark reducing residual BA/AC to 70 to 80 sq. ft. Keep a mixed stand do not eliminate any one species. Shortwood operation only. Spring bark slip spec. as well. Scattered ponds. No past harvest activity. High quality timber.											
103	O6	27	86	60	aspen (upland)	two aged	final harvest	1			
comnts Fmd : NIMS plot at north end of stand. Final harvest manage for a mix of natural regeneration of aspen, oak and Mr. Leave scattered white pine located in the SW corner of stand for visual. High quality oak stand with scattered aspen clones. More aspen along Long Lake Road. Red maple pole understory in many places - stand is converting to Mr.											
109	A9	21	72	68	aspen (upland)	mature	final harvest	1			
comnts Fmd : Final harvest manage for a mix of natural regeneration of aspen, Mr and oak. Expand sale boundary down into stand 94. (About 1 to 2 chains) Much of the aspen is over mature. Stand line between this stand and stand 97 is broad.											
120	A6	33	37	75	aspen (upland)	immature	final harvest	1			
comnts Fmd : Final harvest manage for a mix of natural regeneration of aspen, Mr and oak. Red maple understory reaching pole size. Excellent quality timber. Rolling hills. (hills maybe steep enough to seasonally restrict logging operations.)											
133	A9	14	58	48	aspen (upland)	low quality	final harvest	2			
comnts Fmd : Aspen type with a jack pine/oak mix. Along the floodplain od Floodwood Creek. Need to cut now or going to lose the aspwn component. Treat with Stand 40 but DO NOT interplant with jack pine.											
135	J9	17	27	46	jack pine	two aged	final harvest	2	planting		
comnts Fmd : Area was cut over in 1979 but the jack pine was left. Two-aged stand with pine at rotation age now. Aspen and pine coming back in good where cut. Need to remove pockets if older pine which is about half the stand's total acreage. May have to replant with jack pine to maintain stocking. Manage with Stand 41.											
136	J6	22	60	46	jack pine	high risk	final harvest	2	planting		
comnts Fmd : Brachen/blueberry ground cover. Need to cut. Sawlog size jack pine is dying along with some pole size. No sapling size pine in understory, all is oak. Interplant with jackpine to maintain stocking. Snowmobile trail bisects stand.											
153	J6	13	60	46	jack pine	immature	final harvest	1	planting		
comnts Fmd : Final harvest now. Leave scatered pockets of red pine. Mainly for visual. Interplant jack pine to maintain full stocking following harvest. Red pine density varies.											
157	J6	8	58	46	jack pine	mature	final harvest	1	planting		
comnts Fmd : Final harvest now. Interplant jack pine to maintain full stocking following harvest. Upland.											
246	J6	8	91	65	jack pine	mature	final harvest	2	planting		
comnts Fmd : Mix of red and jack pine well past maturity right on the line to being classed as a saw size stand. There is aspen clones and scattered oak. The regeneration is oak with it fading into red maple at the north end. Cut and leave white pine over 18 inches for diversity. Interplant with jack pine to maintain stocking levels.											
262	J6	6	70	48	jack pine	immature	final harvest	1	planting		
comnts Fmd :											
Total Acres.....		645									

**Proposed Treatments
With Limiting Factors**

Compartment: 5

Entry Year: 2008

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

Total Acres..... 0

