



GLADWIN FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 15 ENTRY YEAR: 2007

Compartment Acreage: 2080 County: Clare

Revision Date: June 10, 2005: July 7, 2005: July 29, 2005

Stand Examiner: Tim Gallagher

Legal Description: T19N – R6W Sections 7, 16, 17, 18, 19, 20, 21, 29 & 30.

RMU (if applicable):

Management Goals: Continue to manage aspen and jack pine stands to maintain a variety of age classes to enhance deer and grouse habitat. The compartment also has a large acreage of mature oak and red pine stands, which are in need of treatment. Several of these stands have had partial harvests in the past 10 to 20 years. An on-site visit to many of these mature stands was scheduled with Jim Bielecke, Jason Stephens and Scott Throop. As a result of the meeting management decisions were made based on the options that we have in these stands. Many of the red pine stands that have been thinned in the past 10 to 20 years have a very dense oak under-story. The under-story is the direct result of the harvests in the past, in these stands we are going to manage for the oak under-story by removing the red pine. With the mature oak stands we have old oak on poor sandy Grayling soils. Regeneration is a concern in these stands and to deal with that concern red pine will be inter-planted in these stands following harvests. The goal in these oak stands is to manage for a mix of regeneration (oak, red pine and jack pine). They will not be converted to red pine plantations. Many of the red pine stands will now be managed for oak and many oak stands will now be managed for mixed red pine/jack pine/oak stands.

The state land in this compartment is spread out over nine sections. The state and private lands are intermixed resulting in miles of private property lines. Overall the compartment is on average ground with site indices between 55 and 70. There are numerous old railroad grades criss-crossing the area, remnants from the logging era.

Soil and Topography: The area varies from well drained sands in the out wash plains to poorly drained mucky soil as you enter the Muskegon River flood plain. The terrain is mostly flat with a few rolling hills as you move out of the flat plains. Giss-I-Was Creek bisects the compartment; the creek is in a valley and there are areas of steep banks leading down into the river valley. The major soil types are Rubicon-Croswell-AuGres associations, Lupton-Markey associations and Grayling sands

Ownership Patterns, Development, and Land Use in and Around the Compartment: Private holdings are mostly comprised of large forested single holdings with absentee landowners. 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. Some areas of state owned land within the compartment have limited access do to both ownership patterns and topography. Many of the private land owners access their land via state two track roads none of which have easements.

Unique, Natural Features: This area has a variety of rare species that could be or are present including; Northern Goshawk, Wood Turtle, Blanding's Turtle, Great Blue Heron, Slippershell Mussel and Eagle. Also potential for beak grass, broad-leaved puccon, round pigtoe and elktoe in stands along the Muskegon River.

Archeological, Historical, and Cultural Features: None know.

Special Management Designations or Considerations: None know

Watershed and Fisheries Considerations: Giss-I-Was Creek flows into the Muskegon River. Both of these water-ways are within the compartment. Giss-I-Was Creek is a designated trout stream and should be treated as a cold water fishery. Giss-I-Was Creek is in a valley and has a natural buffer of lowland brush and marsh directly adjacent to its banks. The Muskegon River, a warm water fishery and a major Michigan watershed has a natural corridor (floodplain) of lowland swamp hardwood along most of the water course and should be considered a sensitive area for timber harvest purposes. Upland/High bank areas along the river should also be considered sensitive. 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:

Compartment 15 consists of 2080 acres. Aspen acreage (cover types) comprises 10.7% of the entire compartment area. Red Pine and Swamp Hardwoods are the predominant forest species.

Swamp Hardwoods offer different habitat options for numerous waterfowl and other non-game avian species. Herp populations are common as sandy locations (adjacent to the noted water corridors) provide the necessary habitat essentials.

Though not in the designated KW boundary, Jack Pine stands exist that could potentially offer future use sites for the Kirtland's Warbler.

Swamp Hardwood stands, depending upon the severity of the winter, provide suitable winter range. This is not one of the better grouse or deer hunting compartments within the Gladwin Forest MU.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 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. The nearest gravel pit is located one mile to the east and there may be potential. The mostly abandoned Freeman-Redding Field is located in and just to the east of the Compartment. It has produced over 16 MBO and nearly 2 Bcf gas since 1938. Most of the compartment is not leased 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. There are access limitations in sections 17 and 20 due to the active railroad tracks and wet terrain.

Survey Needs: None needed.

Recreational Facilities and Opportunities: No official facilities. The area receives moderate hunting pressure most of which is deer hunters. Light fishing pressure occurs on Giss-I-Was Creek and the Muskegon River. Moderate dispersed camping occurs mainly during the firearm deer hunting season. Canoe traffic on the Muskegon River can be heavy on weekends during the summer.

Fire Protection: With the bridge being out on Huckleberry Trail and the wildlife gate off of M-61 the only access would be off of Kirby, therefore it would be beneficial to have an alternative access for egress and ingress for wildfire response. This could be either through the gate or have the bridge replaced. Development of the private property will increase the wild land /urban interface problem.

The two spots in this compartment that were used for tire storage have been cleaned up.

Additional Compartment Information: There is a major trash dumping site located in section 18; NW1/4. (Stand number 401) At the pre-review it was decided to deal with this major land use issue. The first step in dealing with the trash dumping is to close all state forest two track roads for ten years in the W1/2 of section 18 and the W1/2 of section 19.

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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: 15

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		66		47	34	44		31											222
Cedar													9						9
Grass	17																		17
Jack Pine		13	121	13	8	21	27		117										320
Lowlnd Brush	34																		34
Marsh	101																		101
Mx Swmp Cnfr									49										49
Oak		32	69			14		32	119		64								330
Red Pine		22					90	18	378										508
Swamp Hrdwds			14	4				95	10	152	31	26	76						408
Upland Hdwds								10		12									22
Water	10																		10
White Pine						50													50
Total	162	133	204	64	42	129	117	186	673	164	95	26	85						2080

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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: 15

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	222																										222	
C Cedar				9																							9	
G Grass					17																						17	
J Jack Pine							320																				320	
L Lowlnd Brush									34																		34	
N Marsh											101																101	
Q Mx Swmp Cnfr												49															49	
O Oak														330													330	
R Red Pine														179		329											508	
E Swamp Hrdwds																				408							408	
M Upland Hdwds	12																								10		22	
Z Water																									10		10	
W White Pine																										50	50	
Total	234			9	17		320		34		101	49		509		329				408					10	10	50	2080

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

CLARE COUNTY

COMPARTMENT: 15

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	8512 Cds	Hardwood	2024 Cds
Hardwood	2056 Mbf	Hardwood	685 Mbf
Softwood	10669 Cds	Softwood	5325 Cds
Softwood	4360 Mbf	Softwood	1104 Mbf
Sum TotVol	32013 Cds	Sum CutVol	10927 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	
2080		708	

GLADWIN FOREST MGT UNIT

Proposed Treatments
With NO Limiting Factors

Compartment: 15

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
1	R9	53	68	60	red pine	immature	thinning	1		
comnts Fmd : Red pine and jack pine planted in 1937. All jack pine and oak removed in 1998. Reduce BA/AC to 90' to 100' sq ft. Individually mark trees for removal - rows are indistingwishable.										
7	R5	62	68	52	oak	immature	final harvest	1		
comnts Fmd : Red pine and jack pine planted in 1937. All jack pine and oak removed in 1998. Dense O3 understory has resulted from partial harvest in 1998. As per on-site meeting with Jim Bielecke, Jason Stephens and Scott Throop. Final harvest with reserves. The reserves will be small mushroomed shaped un-cut islands the reserve areas should be about 4 acres each. The islands should be scatteded and will also serve as visual management tools in an area with significant harvest's proposed. The management objective is changing from red pine to oak.										
8	O9	27	75	52	oak	immature	shelterwood-seed	1		
comnts Fmd : Reduce BA/AC to 30' to 40' sq. ft. to stimulate oak regeneration. Residual trees should be marked individually and in groups.										
9	J6	27	56	38	jack pine	mature	final harvest	1	planting	
comnts Fmd : Final harvest 2" DBH spec. Leave all oak, most is standing dead. Understory ranges from O1 to O3. May need to interplant red pine to maintain full stocking.										
16	O6	43	75	52	oak	mature	final harvest	1	planting	
comnts Fmd : As per on-site meeting with Jim Bielecke, Jason Stephens and Scott Throop. Final harvest with reserves. (2" DBH spec). The reserves should be marked both individually and in groups. Residual could be as high as 20' to 30' sq ft in some areas, average reserve residual should be 10' sq ft. Interplant red pine following harvest to maintain full stocking. The results will be a mixed stand of oak, jack pine and red pine. There are pockets of pure jack pine at south end of stand. Buffer "L" stand at south west corner. Wide stand transition lines between this stand and surrounding stands.										
17	M6	10	65	55	northern hardwood	immature	final harvest	2		
comnts Fmd : Final harvest 2" DBH spec with oak reserves. Manage for a mix of red maple, oak and aspen regeneration. A few scattered pole size white pine at south end of stand - leave white pine for visual.										
18	O6	22	59	60	oak	immature	final harvest	1	planting	
comnts Fmd : Mixed stand both overstory and understory has pokets of aspen, red maple and jack pine. Final harvest 2" DBH spec with oak reserves. Oak reserves should be marked both individually and in groups. Interplant red pine to maintain full stocking. Manage for a mix of red maple, oak, red pine and aspen regeneration.										
25	O6	16	75	55	oak	mature	final harvest	1	planting	
comnts Fmd : Red pine under planted in 1956. Most of the red pine is suppressed. Final harvest with reserves. Reserve trees should be marked individually and in groups. Interplant red pine following harvest to maintain full stocking. Leave strip of red pine at south end of stand along Clarence Road for visual.										
27	O6	13	75	48	oak	mature	shelterwood-seed	1		
comnts Fmd : Red pine under planted in 1949. Some of the red pine is suppressed. Harvest all but un-suppressed red pine. The 30' to 40' sq ft of residual red pine will act as a nurse crop for oak regeneration. Possible to leave all red pine 6" DBH and up.										
43	R9	37	71	50	red pine	immature	thinning	1		
comnts Fmd : Red pine and jack pine planted in 1939. As per on-site meeting with Jim Bielecke, Jason Stephens and Scott Throop. Harvest all jack pine and oak. Reduce red pine BA/AC down to 60' to 70' sq ft. The residual red pine will act as a nurse crop to stimulate oak regeneration. Red pine density varies, mark surppressed trees first then co-dominant trees to hit target residual.										
44	R9	117	68	55	oak	immature	final harvest	1		
comnts Fmd : Red pine and jack pine planted in 1937. All jack pine and oak removed in 1991. Dense O3 understory has resulted from partial harvest in 1991. As per on-site meeting with Jim Bielecke, Jason Stephens and Scott Throop. Final harvest with reserves. The reserves will be small mushroomed shaped un-cut islands the reserve areas should be about 4 acres each. The islands should be scatteded and will also serve as visual management tools in an area with significant harvest's proposed. The management objective is changing from red pine to oak.										
45	R6	20	71	50	red pine	immature	shelterwood-seed	1		
comnts Fmd : Red pine and jack pine planted in 1939. As per on-site meeting with Jim Bielecke, Jason Stephens and Scott Throop. Harvest all jack pine and oak. The residual red pine will act as a nurse crop to stimulate oak regeneration.										
47	J6	60	68	50	jack pine	mature	final harvest	1	planting	
comnts Fmd : Jack pine planted in 1937. Density, quality and size of jack pine varies. Final harvest 2" DBH spec leave all dead standing oak. Interplant red pine to maintain full stocking. The results will be a mixed stand. Leave all red pine, the red pine is located at the very south and north end of the stand along the roads. At the very south end of stand there is more oak and aspen treat up to two track at south end of stand.										

GLADWIN FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 15

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
50	O8	31	89	50	oak	mature	final harvest	1	planting	
<p>comnts Fmd : As per on-site meeting with Jim Bielecke, Jason Stephens and Scott Throop. Final harvest with reserves. (2" DBH spec). The reserves should be marked both individually and in groups. Small islands of 15 to 20 trees are a option for reserves also. Residual could be as high as 20' to 30' sq ft in some areas, average reserve residual should be 10' sq ft. Interplant red pine following harvest to maintain full stocking. The results will be a mixed stand of oak, jack pine and red pine. Scattered semi open areas.</p>										
53	M6	12	80	55	aspen (upland)	immature	final harvest	1		
<p>comnts Fmd : Final harvest 2" spec. Manage for aspen, leave all oak. Scattered pockets of balsam fir and jack pine. Looks like upland, (15" of snow) stand is just slightly higher then E6 stand to the west. May need to harvest in winter.</p>										
59	O6	13	75	50	oak	immature	final harvest	1		
<p>comnts Fmd : Final harvest 4" spec. Release oak regeneration that is in place. The mature oak is on the decline. Stay back away from steep bank leading down to the Musgegon River back waters. Many new cabins on surrounding private land. Access will be from non maintained county road. Should get a mix of natural regeneration following harvest. J/O/A/Mr.</p>										
73	R6	10	56	50	red pine	immature	final harvest	1		
<p>comnts Fmd : Interplanted with red pine and jack pine in 1949. Heavy oak die off. Stand has a excellent understory of oak, aspen and maple 20' to 30' tall. Final harvest with reserves to release understory, 4" DBH spec.</p>										
74	R6	15	56	40	red pine	immature	selection	1		
<p>comnts Fmd : Red pine and jack pine planted in 1949. Rows are hard to follow. Harvest all jack pine and scattered aspen. Reduce residual red pine to 60' sq ft. to establish regeneration and release regeneration that is in place. Red pine density varies. Residual red pine will act as a nurse crop to establish oak regeneration.</p>										
Total Acres.....		588								

GLADWIN FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 15

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
68	A6	14	63	50	aspen (upland)	mature	final harvest	2		
<p>TREATMENT LIMITING FACTORS: Too wet Blocked by other physical obstacle Road needed (resources not presently available)</p> <p>comnts Fmd : Access is limited. Aspen is on the decline, converting to Mr, ash and oak. Overall stand is very wet. Commercial harvest would only be possible on 100% frozen ground. Possible habitat cut. However, regeneration is a concern as aspen is past its prime and on the decline. Fish Division recommends "leaving a 100 foot buffer between the aspen cut and wetland brush border at this site"</p>										
71	A6	5	63	50	aspen (upland)	mature	final harvest	2		
<p>TREATMENT LIMITING FACTORS: Too wet Blocked by other physical obstacle Road needed (resources not presently available)</p> <p>comnts Fmd : Access is limited. Aspen is on the decline, converting to Mr, ash and oak. Overall stand is very wet. Commercial harvest would only be possible on 100% frozen ground. Possible habitat cut. However, regeneration is a concern as aspen is past its prime and on the decline. Fish Division recommends "leaving a 100 foot buffer between the aspen cut and the wetland brush border at this site"</p>										
77	R6	32	48	45	red pine	immature	final harvest	1		
<p>TREATMENT LIMITING FACTORS: Blocked by other physical obstacle Road needed (resources not presently available)</p> <p>comnts Fmd : Access is limited. Final harvest leave all oak.</p>										
78	A6	12	63	50	aspen (upland)	mature	final harvest	2		
<p>TREATMENT LIMITING FACTORS: Too wet Blocked by other physical obstacle Road needed (resources not presently available)</p> <p>comnts Fmd : Access is limited. Aspen is on the decline, converting to Mr, ash and oak. Overall stand is very wet. Commercial harvest would only be possible on 100% frozen ground. Possible habitat cut. However, regeneration is a concern as aspen is past its prime and on the decline. Fish Division recommends "leaving a 100 foot buffer between the aspen cut and wetland brush border at this site"</p>										
81	J6	57	74	50	jack pine	mature	final harvest	1		
<p>TREATMENT LIMITING FACTORS: Blocked by other physical obstacle Road needed (resources not presently available)</p> <p>comnts Fmd : Access is limited. Final harvest leave all oak. Good quality jack pine. Do not cut small (5 to 8 ac) oak ridge that runs through stand. Paint out of sale. Looks like natural stand no planting records.</p>										
Total Acres.....		120								

