



GLADWIN FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 130 ENTRY YEAR: 2007

Compartment Acreage: 1867 County: Arenac

Revision Date: May 2005: June 2005: July 12, 2005: August 18, 2005

Stand Examiner: Steven Nyhoff

Legal Description: T19N R3E, Sections 1-3, 10-12
T19N R4E, Section 6

RMU (if applicable): None

Management Goals:

The compartment, on a whole, is very heavy to aspen, with some areas of swamp hardwoods, pines, and low, wet depressions. Because of this much of the management in the area has been to maintain the early secessional ecosystems. Currently the aspen stands are in two groups; stands less than 30 year old and stands greater than 60 years. Therefore, in this year of entry there are a lot of aspen stands that will need to be harvested.

The management goals for the compartment are to maintain the current cover types. There is one stand (Stand 69) is fairly moist that is too converted to upland hardwood. This is being done to increase the diversity in the compartment. In the aspen stands to be clearcut, retain some pines and oaks where. This is to be done to increase biodiversity where possible. The BA to be retained in these stands should be kept 10 BA or lower, so the aspen cover type can be maintained.

Soil and Topography:

The topography of the compartment is undulating to rolling. There are numerous ridges separated by broad wet depressions. The slope on the hills and ridges range from 5% to 40%. The steepest slopes are along the creeks in the compartment.

The main soils in the compartment are associations that contain Rubicon, AuGres, and Roscommon. Rubicon soils are found in the highest elevation on the ridges, AuGres is found on the mid slopes and low ridges, and Roscommon in the low, wet depressions and drain ways between ridges. There are also scattered pockets of Tawas, Adrian, and Deford mucky soils in some of the wettest depressions. Because of the undulating nature of the terrain the soils in most of the stands have significant variability. This variation in soils does have an impact in the cover types and the tree density. Most of the stands that have been harvested in the last 30 years have trees ranging from well stocked on the ridges to poorly stocked in the depressions and drainages.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

The state land is in a contiguous ownership except for a 160 acre parcel in section 6 to which we have a management easement across private land from the west.

The private land in the area is used for a variety of purposes from hunting properties, to seasonal and permanent residences, to farming. Also, the county maintains a recreational facility within the compartment boundaries called Oasis Lake.

Unique, Natural Features (include only non-site specific and non-sensitive information):

During the operational inventory process no endangered or threaten species were located. There are records of a Red-shouldered hawk to the north, Doll's merolonche to the north and northwest, Massasauga to the south, Channel dart to the north, Three-awned grass to the northeast, Hayden sedge to the northwest, and Ram's head lady's-slipper to the southwest.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):

None known or located during the Operational Inventory process.

Special Management Designations or Considerations:

The compartment in section 11 has several wells and tank storage areas. Also in section 2 there is an 800 MHz radio tower that is on 12 acres of land that is on a long term lease.

Watershed and Fisheries Considerations:

The compartment has many drain ways that flow into the Rifle River. Many of these drainages are very minor. There are a few creeks of substantial size. One of them is in section 6, Parmalee Creek, which flows directly into the Rifle River. When harvesting in this area the drainages should be taken into consideration for the possibility of sediment loading. These sediments may be carried to the Rifle River in the spring.

Wildlife Habitat Considerations:

Compartment 130 is one of the higher quality aspen compartments. From an ecological perspective, this compartment should be managed and maintained in a predominantly aspen cover type. In-stand species diversity is greater than indicated on the attached treatment map. Wildlife species associated with early successional forest types are aggressively targeted by hunters.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of lacustrine (lake) sand and gravel, an end moraine of fine-textured till and minor dune sand. The glacial drift thickness varies between 10 and 50 feet. Beneath the glacial drift are the Pennsylvanian Saginaw Formation and the Mississippian Michigan Formation. The Michigan is quarried for gypsum and the Saginaw is used for clay/shale. A gravel pit is located in Section 6 and potential appears to be good. Adams Field is located in the compartment. The Field has produced over 1.7 MBO primarily from the Richfield Formation. The compartment currently has several active leases and the rest of the Compartment has been nominated for the June 2005 lease auction.

Vehicle Access:

Currently the compartment is very accessible for the area has an abundance of two-tracks that are interconnected. The trails' quality is variable due to use and the amount of clay versus sand in the soils.

Survey Needs:

Many of the private land holdings have been surveyed so none is needed at the current time.

Recreational Facilities and Opportunities:

There are no DNR established recreational facilities but the county has a park that they maintain within the compartment boundaries, Oasis Lake.

The area itself is heavily hunted, as well as used for camping, mushroom picking, and berry picking.

Fire Protection:

This compartment contains seven gas/oil well sites (Rayburn Oil) in the center of Section 11. Any wildfire in this area will require contact to the respective gas line representative before any soil disturbance control measures can take place. Access into the compartment is helped by several two-tracks that cover the area. The north end of Klein Road has been blocked under the road plan but the state land north of the block can be accessed by an alternate route. Timber types in this compartment are of the less volatile deciduous tree type such as aspen and lowland hardwoods.

Also the compartment is undulating topography with many dry ridges and low, wet depressions in it. This could make it more difficult to operate fire suppression equipment in the compartment.

Additional Compartment Information:

The compartment does get fairly extensive illegal use by ORVs from the public in the area. This is noticeable but currently it is not causing extensive environmental damage.

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

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

ARENAC COUNTY

COMPARTMENT: 130

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		234	481			8	68	137	64	95									1087
Bog or Marsh	18																		18
Grass	14																		14
Jack Pine						22		3											25
Lowlnd Brush	8																		8
Marsh	38																		38
Mx Swmp Cnfr								29											29
Oak		45																	45
Red Pine							7	32	37										76
Swamp Hrdwds		18		23			89	148	171	10								19	478
Tamarack							14												14
Upland Hdwds		8						14											22
Water	13																		13
Total	91	305	481	23		30	178	363	272	105								19	1867

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

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

ARENAC COUNTY

COMPARTMENT: 130

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	1087																										1087
V Bog or Marsh			18																								18
G Grass					14																						14
J Jack Pine							25																				25
L Lowlnd Brush									8																		8
N Marsh											38																38
Q Mx Swmp Cnfr												29															29
O Oak	30													15													45
R Red Pine																76											76
E Swamp Hrdwds																				478							478
T Tamarack																						14					14
M Upland Hdwds																								22			22
Z Water																									13		13
Total	1117		18		14		25		8		38	29		15		76				478	14			22	13	1867	

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

ARENAC COUNTY

COMPARTMENT: **130**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	11825 Cds	Hardwood	4704 Cds
Hardwood	1565 Mbf	Hardwood	877 Mbf
Softwood	2103 Cds	Softwood	426 Cds
Softwood	303 Mbf	Softwood	95 Mbf
Sum TotVol	17664 Cds	Sum CutVol	7074 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	443
1867			

GLADWIN FOREST MGT UNIT

Proposed Treatments
With NO Limiting Factors

Compartment: 130 Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDf Status
13	A9	9	66	65	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is on a ridge and the aspen in the stand is declining, so harvest the stand as a clearcut. May want to leave 5-15 BA of oak for visual, wildlife and seed. The vigor of the stand is low so it may not come back as an aspen stand. It would be acceptable to have a mixed stand of oak, maple, and aspen with the main species being oak.										
17	J6	3	59	60	jack pine	mature	final harvest	1	planting	
comnts Fmd : The stand is a mature jack pine stand that has a mix of white ash and red maple coming up in the understory. The stand does have a large number of yellow lady slippers as part of the ground cover. Clear cut the stand and replant stand to jack pine or red pine with jack pine being preferred.										
25	A6	3	80	60	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is in poor shape and need to be harvested to regenerate the aspen. Harvest the stand as a clear cut leaving the red pine. Currently the stand is a mix of aspen, red maple and red pine this mix is expected to continue and is acceptable even if aspen stops being the dominate species.										
32	M6	14	64	65	northern hardwood	mature	thinning	2		
comnts Fmd : The stand is fairly dry and could have the aspen and birch stripped for it leaving the maple and other species for diversicity for the compartment. The stand is not expected to convert to a true northern hardwood but stay mainly as an upland red maple stand mix with other species.										
36	E6	11	74	65	swamp hardwoods	immature	selection	2	natural regeneration	
comnts Fmd : The stand goes from wet in the west to fairly dry in the east. The stand has pockets of standing water in it but it look like is would dry out toward late summer.										
40	A6	29	59	80	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is on a low plateau that probably has AuGres soils. The site appears to be richer then the more droughty ridges in the compartment so it should regenerate well. Clearcut the stand and mark 5 to 10 BA of oak to be retain for mast, wildlife. The brush in the stand is mainly witch hazel. The stand is expected to regenerate as an aspen stand but it would be acceptable if it become an oak stand with a heavy componete of aspen with some other species mixed in.										
44	E5	34	64	65	swamp hardwoods	immature	shelterwood-prep	2		
comnts Fmd : The stand is made up of low aspen ridges scattered among a larger E6. The stand also has pockets of E2/L. Cut the stand by removing the aspen and paper birch to 2 inches and mark all tree withing the aspen clones to regenerate aspen leaving the rest of the species. Ths should lead to a mosaic stand of small aspen pockets in a stand of swamp hardwoods.										
50	A6	19	59	75	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is on a ridge and it needs to be harvested. The slopes on the side of the ridge are fairly steep so harvesting may be tricky. The base of the ridge is stand 31 and it is wet. To harvest clearcut the stand. The stand is expected to remain an aspen stand but may be mixed with oak and maple. In pockets within the stand the oak and maple may become the dominated trees species and this will be acceptable.										
54	A6	52	80	75	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is undulating with intermitten drains in ravienes that drain south. The drains are very rich having the ground cover of maiden hair fern, lady fern and jack in the pulpit. The rest of the stand has the ground cover of mainly juneberry and witch hazel that is very thick in areas. The stand can be harvest as a clear cut to regenerate the aspen but something needs to be done to protect the ravines and the drainages. This may be done by marking buffers around them or just removing the aspen and maked trees. The drainages have significatly less aspen in them. Overall the stand is expected to remain an aspen stand but the drainage may be left as E-Types within the stand to protect the drainage from eroding or producing sediment to go into Palmalee Creek and eventually the Rifle river.										
62	A9	25	80	80	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand could be harvested as a clearcut. The stand does have a drainage that is in a draw. When harvesting the stand keep the drainage and the associated slopes intact for diversity. In the stand there is a small amount of oak that should be reserved. It is expected that the stand will regenerate naturally to aspen.										
64	A6	11	48	68	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is heavy to aspen with some white pine in it. Clearcut the stand to regenerate aspen. The stand is expected to regenerate as aspen stand but it will be mixed with red and white pine and in pockets the pines may be a dominate species and this will be acceptable.										
65	A6	6	59	75	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is mainly on a ridge that has moderate slopes. Clearcut the stand to regenerate aspen. The stand is expected to regenerate to aspen mixed with oak. There is a chance that the stand may convert to oak with a heavy component of aspen and this will be acceptable.										
69	A6	48	73	75	aspen (upland)	mature	final harvest	1		
comnts Fmd : Harvest the stand and convert it to an M-type (being upland red maple) by removing the aspen, maple, and paper birch. This harvest is a clearcut with the retaining of all other species for visual and to add species diversity. The site appear to be a richer site with a kotar habitat classification of PArVVb										

GLADWIN FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 130 **Entry Year: 2007**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status	
75	A6	1	63	65	aspen (upland)	mature	final harvest	1	natural regeneration		
comnts Fmd : The stand is similar to stand 77 but lack the thick white pine regeneration and there is a lack of ferns. The brush in the stand is thick witch hazel and juneberry. It is expected to regenerate as an aspen stand with some oak and red maple in it.											
77	A6	40	48	66	aspen (upland)	immature	final harvest	2	natural regeneration		
comnts Fmd : The stand is a thick pole stand clearcut to regenerate aspen. It is expected to regenerate to aspen but the white pine will have to be redused, but not removed during the harvesting process. So whole tree skidding is preferred method of harvest. If the amount of white pine is not redused the site may convert to a white pine. The management objective is to have a aspen stand with some component of pine in it.											
78	R9	19	61	70	red pine	mature	selection	1	natural regeneration		
comnts Fmd : The stand was harvest by removing the large white pine and some other marked species. Now cut the aspen, jack pine. Also mark the thick red pine to take then down to 70 to 80 BA. The removal of aspen may result in some areas have a BA lower then 70 and this is acceptable.											
82	R6	37	72	68	red pine	immature	shelterwood-seed	1			
comnts Fmd : Harvest the stand retaining 30 to 40 BA. In setting up the sale favor red pine and remove all hardwoods. By removing all the hardwood there maybe areas in the stand with BA less than 40 and this will be acceptable.											
139	A6	11	64	50	aspen (upland)	mature	final harvest	2	natural regeneration		
comnts Fmd : This stand is a Rubicon ridge that is against private land and is boarder to the west by a creek going in to stand 41 that is in a ravine with steep slopes and a creek coming out of stand 41 and going east. This part of the creek is also in a ravine that has very steep slopes. If the stand cannot be reached then habitate cut if it can be done. The stand is to be clearcut and regenerate aspen. After harvest that stand will be mixed with oak.											
277	R6	7	48	65	red pine	immature	thinning	1			
comnts Fmd : This stand is a plantation that has substaintial aspen competition. The diameter of the red pine varies form 3" to 10". The stand needs to have the aspen removed and to facilitated that remove every 3rd row.											
Total Acres.....		379									

GLADWIN FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 130 Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
11	A5	15	80	60	aspen (upland)	mature	final harvest	2	natural regeneration	

TREATMENT LIMITING FACTORS: Scenic values/visual values
Influence zones

comnts Fmd : Stand touches old 76 and an active rail road run through the stand. The stand is very mixed in tree species and age of trees. The stand would be difficult to manage because of the RR and the road so leave it for visual.

89	A6	49	59	75	aspen (upland)	mature	final harvest	2	natural regeneration	
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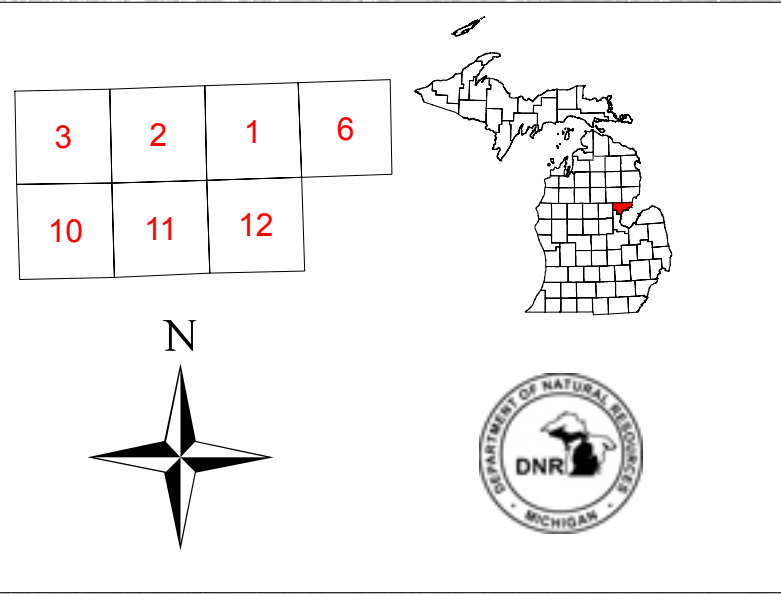
TREATMENT LIMITING FACTORS: Adjacent landowner denies access

comnts Fmd : The stand is very hilly so there potential to have erosion. The slopes in the stand go from 2% to 35%. The aspen in the stand is over mature and needs to be harvested, if not the stand will convert to white pine. The white pine pole that do exist in the stand are in good shape and not heavily weeviled. Currently they are scattered and not in thick groves. Access to the stand would be difficult being blocked for the north and west by the creek and private land to the south and west. The private land to the west is owned by the village of Sterling so access may be possible. In response to fishery comment when harvesting this stand stay back from creek 100 feet.

Total Acres..... 64

Field Map

Compartment 130
 T19N, R3E, Sec. 1-3, 10-12
 T19N, R4E, Sec. 6
 County: Arenac
 Unit: Gladwin
 YOY: 2007
 Acres: 1,867 GIS Calculated
 Stand Examiner: Steven Nyhoff
 Map Revised: 8/23/2005
 Map Phase: Pre-review



- Legend**
- ◆ RLS Corners
 - Miris Corners
 - - - Poor Dirt Roads
 - ⋯ Trails
 - Railroads
 - Powerlines
 - Police Tower
 - ◆ Police Tower Corners
 - Active Oil Wells
 - × Gates
 - × Natural Material
 - 🇺🇸 Interstate Highway
 - ▭ Stand Boundary
 - ▨ 100 - Final Harvest
 - ▩ 118 - Final Harvest/Planting/Other
 - ▧ 148 - Final Harvest/Natural Regeneration/Other
 - ▦ 300 - Shelterwood-seed
 - ▥ 400 - Thinning
 - ▤ 700 - Shelterwood-prep
 - ▣ 848 - Selection/Natural Regeneration/Other
 - ▢ County Gravel Roads
 - Name Water Features

