



**GLADWIN FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 4 ENTRY YEAR: 2007

Compartment Acreage: 3718 County: Clare

Revision Date: 7-7-2005, Pre-Review 8-01-2005

Stand Examiner: Kelly Standerfer

Legal Description: T20N R4W, Sections 4-8, 16-18.
T20N R5W, Sections 1, 12, and 13.

RMU (if applicable):

Management Goals:

Continue to manage for a diversity of forested and non-forested cover types. The main goals for this year of entry (YOE) are to maintain the health of pine plantations by thinning several red pine stands, diversify the aspen and jack pine age class distribution, and continue to provide for the various recreational opportunities within the area.

Soil and Topography:

The area varies from well drained sands to poorly drained mucks as you enter the river flood plain. The area is flat for the most part, however there are some moderate terrain changes near Haskell Lake, the Muskegon River, and there is some rolling terrain in sections 7, 18, and 13. The major soil types are Grayling associations along with Lupton-Markey mucks which are in the river flood plains.

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

There are some private in-holdings including residencies and/or cabins within this compartment. To the north of this compartment is mainly State forest land in Roscommon County. To the west is mixed private and State ownership including the town of Leota. To the south and east is mixed State and private holdings. The majority of the private landholdings are not actively managed however there are a few exceptions.

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

This area has the potential to provide habitat for a wide variety of sensitive wildlife and vegetation including red-shouldered hawk, loons, eagles, osprey, Kirtland's warbler, goshawk, Blanding's turtle, wood turtle, eastern box turtle, spotted turtle, great blue heron rookery, and round pigtoe,. It also has potential for beak grass and broad-leaved puccoon in stands that are along the Muskegon River.

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

There are several old foundations and homestead openings throughout this compartment.

Special Management Designations or Considerations:

Compartment 6, to the west, has some areas which are designated blocks for Kirtland Warbler habitat. The opportunity to expand the warbler habitat exists within stands 70, 66, and 63.

Watershed and Fisheries Considerations:

The Muskegon River dissects the North West portion of this compartment and Townline Creek Dissects the north east portion of this compartment. The north half of Haskell Lake and the Rice Pond are also within this compartment. Treatments for this YOE are well away from these water bodies.

Wildlife Habitat Considerations:

There is a mixture of pine, oak, and aspen cover types intermixed with bogs, marshes, ponds, and lowland hardwoods which makes this compartment great for deer, grouse, and waterfowl hunting as well as bird watching. Townline Creek provides adjacent wetlands and lowland hardwood timber types with many good deer yarding areas.

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 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. Gravel pits are located in Sections 7 and 18 and potential is good on the uplands. Cranberry Lake Field is located to the west of the Compartment. It is a gas storage field and also has secondary oil recovery operations. None of the compartment is under lease at this time.

Vehicle Access:

Overall, access throughout this compartment is relatively extensive. Several county roads dissect the compartment and there are two track roads throughout. The roads that are in place seem to be causing minimal environmental impact with the exception of the trail system just to the north of Haskell Lake. This area is heavily camped and has turned into exposed beach sand. A restoration project is needed here to re-establish vegetation to stabilize the sandy soil.

Survey Needs:

Numerous survey corners are needed to help identify the proper location of property lines. Treatments for this year should be feasible without establishing new survey corners.

Recreational Facilities and Opportunities:

The Leota snowmobile trail and the ORV trail run throughout this compartment and north into Roscommon and Missaukee Counties. The Leota ORV Trailhead and scramble area are in place just to the east of the Jonesville Bridge in section 1 of T20N R5W.

Fire Protection:

This compartment is in the Zone 4 dispatch area. Some suppression concerns include overgrown and narrow roads in areas, potentially explosive pine fuels, and the Muskegon River dissecting the compartment with the only usable bridge being in Leota. As mentioned before ORV use is heavy within this compartment, this poses a fire threat as users may start dispersed camping fires and illegal ORV's with no spark arrestors have the potential to start several dispersed fires.

Additional Compartment Information:

There are two areas that need immediate attention within this compartment due to heavy recreational use, primarily damage from both pick up trucks and 4-wheelers. Final decisions on how to address these areas have not been determined; however something needs to take place to help deal with the problems at hand.

Within stand 43 there is an undesignated ORV scramble area that needs to be addressed. Some possible options for this area include; officially designating the area as a scramble area and ensuring that vehicles are kept back from the river and BMP and safety hazards are addressed, making this area into a designated camp ground as the area is heavily camped by ORV users, and yet another option would include closing the area to ORV use and doing a restoration project to limit ORV use to the trail system itself.

The second area that needs to be addressed is the road system at the north end of Haskell Lake. This area has exposed sand with little to no vegetation for stabilization. In addition, some vehicular traffic has driven through portions of the flooded areas along the lake. This area needs to be closed to vehicular traffic.

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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: 4

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		191	211	149	325	80		5	40										1001
Black Spruce										8									8
Bog or Marsh	302																		302
Cedar											17								17
Grass	20																		20
Jack Pine		59	45	29	286		35	20	36	37								48	595
LowInd Brush	28																		28
Marsh	70																		70
Mx Swmp Cnfr			18							97	40								155
Non Stocked	42																		42
Oak		100	60	7	33				28			26							254
Red Pine		479	6			48	70	129											732
Swamp Hrdwds							6	58	16	11								224	315
Water	154																		154
White Pine						8	3		14										25
Total	616	829	340	185	644	136	114	212	134	153	57	26						272	3718

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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: 4

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	996																								5		1001	
S Black Spruce		8																									8	
V Bog or Marsh			302																								302	
C Cedar				17																							17	
G Grass					20																						20	
J Jack Pine							550							45													595	
L LowInd Brush									28																		28	
N Marsh											70																70	
Q Mx Swmp Cnfr												155															155	
X Non Stocked													42														42	
O Oak														228											26		254	
R Red Pine	4													72		656											732	
E Swamp Hrdwds																				315							315	
Z Water																									154		154	
W White Pine																										25	25	
Total	1000	8	302	17	20		550		28		70	155	42	345		656				315					31	154	25	3718

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

CLARE COUNTY

COMPARTMENT: 4

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	11592 Cds	Hardwood	2463 Cds
Hardwood	354 Mbf	Hardwood	13 Mbf
Softwood	10671 Cds	Softwood	4059 Cds
Softwood	1641 Mbf	Softwood	294 Mbf
Sum TotVol	26253 Cds	Sum CutVol	7136 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	354
3718			

GLADWIN FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 4

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
11	J6	37	86	60	jack pine	mature	final harvest	1	planting	
comnts Fmd : 2" spec clear cut and interplant with jack pine to ensure adequate regeneration, Mark roughly one large oak/2acres to leave for mast production. Small leatherleaf bog at south east end of stand that will need to be painted out of the timber sale (~.5AC). Harvest the stand on the east side of the road down to the wet flooding. There may be enough oak and aspen regeneration where artificial regen wont be needed in all areas.										
20	R6	31	46	60	red pine	immature	thinning	2		
comnts Fmd : R6 row thinned last YOE. Nice straight workable rows. Individual mark roughly 1/3 of the volume. Take out poorly formed trees(forks and small Diamter) first then thin co-dominants for proper spacing taking the BA to 100-120.										
22	A6	23	36	56	aspen (upland)	immature	final harvest	2		
comnts Fmd : mixed BT and trembling aspen, maple, oak. Aspen seems two aged in areas. 2' spec clear cut this YOE to establish private line and diversify age class. Mark a few large wolfy oak to leave for structural diversity and mast production. Leave all white pine and red pine, most of which is along pierce road. ORV trail disects stand.										
Wld :										
27	R6	4	49	65	aspen (upland)	immature	final harvest	2		
comnts Fmd : R6 with some intermixed oak and aspen. Never thinned. Could leave alone or clear cut to try to regenerate aspen. If CC expand lines out into aspen type to open up the area a bit and increase sprouting on the edges of the stand. Mark about 20BA/Ac of wind firm (large big crowned) red pine to leave as seed source and to diversify the stand structure.										
34	J6	7	50	55	jack pine	mature	final harvest	1	planting	
comnts Fmd : JP IS MATURE. 2"SPEC CLEAR CUT AND PLANT TO JACK PINE. SOME AREAS DO HAVE AN ABUNDANCE OF OAK AND WHITE PINE IN THE UNDERSTORY. TRY TO AVOID DAMAGE TO THIS ADVANCED REGENERATION TO HELP DIVERSIFY THE SPECIES COMPOSITION										
35	R6	66	66	60	oak	immature	shelterwood-seed	1	other - specify in remarks	
comnts Fmd : MIXED RP, JP, AND OAK. MOST OF THE JACK PINE HAS DIED OUT OF THE STAND. FINAL HARVEST ALL SPECIES EXCEPT RED PINE. INDIVIDUAL MARK RED PINE TO ~40-50BA/ACRE TO ACT AS SHELTERWOOD FOR UNDERSTORY OAK. COME BACK FOR THE RESIDUAL RED PINE NEXT YOE OR IN 20 YRS. PRESCRIBE BURN STAND AFTER HARVEST TO PROMOTE OAK AND PINE REGEN.										
36	J6	16	67	60	oak	mature	final harvest	1	other - specify in remarks	
comnts Fmd : MATURE JACK PINE STAND. DENSE O3 IN SOME AREAS. CLEARCUT AND BURN FOR OAK REGENERATION.										
51	J6	7	49	56	jack pine	immature	final harvest	1	planting	
comnts Fmd : CC THIS YOE AND INTERPLANT JP. SOME AREAS OF O3 THAT CAN BE AVOIDED WHEN PLANTED. LEAVE ALL WHITE PINE AND RED PINE AS THERE IS VERY LITTLE OF IT PRESENT AND THERE WILL BE CUTTING ON BOTH SIDES OF THE ROAD. THERE ARE A FEW POCKETS OF ASPEN THAT SHOULD REGENERATE NICELY. POWERLINE DISECTS STAND TO THE NORTH....CUT ALL OF THE STAND EVEN BETWEEN THE POWERLINE AND ROAD.										
52	J6	21	49	56	jack pine	mature	final harvest	1	planting	
comnts Fmd : WEST END OF STAND IS J5 ISH AND EAST END J6 THAT WAS PLANTED VERY TIGHT. FINAL HARVEST THIS YOE AS MUCH OF THE JACK PINE IS DYING OFF DUE TO TIGHT SPACING AND AGE. PLANT TO JACK PINE. 2' SPEC ALL SPECIES.										
53	R6	19	49	65	red pine	immature	thinning	3		
comnts Fmd : STAND 1/3RD ROW THINNED LAST YOE. STRAIGHT WORKABLE ROWS. THERE IS A PINE BARK BEETLE PROBLEM ON THE NORTH WEST END OF STAND BETWEEN THE ROAD AND THE UTILITY LINE, LIKELY DUE TO UTILITY LINE CLEARING AND DEBRIS THAT WAS LEFT DURING A DRY PERIOD. DETAILS OF HOW TO ADDRESS THIS AREA WILL NEED TO BE DISCUSSED WITH ROGER MECH. THIN THE REMAINDER OF THE STAND TO ROUGHLY 120BA/AC. MAY WANT TO REQUIRE THAT TOPS BE CHIPPED TO DECREASE CHANCE OF MORE BEETLE BUILD UP. THERE IS AN OLD FOUNDATION WITHIN THIS STAND AS WELL.										
93	J5	36	69	58	jack pine	mature	final harvest	1	planting	
comnts Fmd : LEFT LAST YOE TO BUFFER TWO LARGE CLEAR CUTS. 2"SPEC CC THIS YOE AND MANAGE FOR MIXED JACK PINE AND OAK. TRENCH AND PLANT JACK PINE WHERE NEEDED. THERE IS AN ABUNDANCE OF DEAD AND DOWN AND A LOT OF THE JACK PINE HAS BEEN LOST DUE TO AGE.EAST END IS SHORTER TIMBER AND HAS A DENSE O3, WEST END IS A BIT WETTER WITH E-TYPE UNDERSTORY. LEAVE SOME RED PINE AT SOUTH END OF STAND TO DIVERSIFY REGEN AND BREAK UP THE TWO ADJACENT CUTS.										

GLADWIN FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 4

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
96	A6	5	65	65	aspen (upland)	mature	final harvest	1		
comnts Fmd : HARVEST NOW TO ENSURE GOOD REGENERATION. THE SOUTH AND WEST EDGE OF STAND HAVE SOME NICE OAK. ALSO SOUTH END OF STAND MORE OF AN OAK STAND WITHOUT MUCH ASPEN. 2' SPEC. ALL SPECIES BUT GREEN TREE LEAVE ROUGHLY 2 OAK TREES PER/ACRE WHERE THERE ISNT AN ABUNDANCE OF ASPEN PRESENT TO HELP INCREASE CHANCE OF OAK REGENERATION, DIVERSIFY STRUCTURE, AND ACT AS FUTURE CAVITY TREES. THE VERY SOUTH TIP OF STAND HAS SOME MATURE JACK AND RED PINE SOME OF WHICH HAS DIED AND CREATED LOTS OF CORSE WOODY DEBRIS, PAINT THIS AREA OUT OF SALE AND LET IT CONVERT TO A MIXED, OAK AND PINE POCKET.										
108	R6	29	49	69	red pine	immature	thinning	2		
comnts Fmd : 1/3 ROW THINNED LAST YOY. RED PINE INTERMIXED WITH LO INCLUSIONS. RED AND BLUE PAINT STILL VISIBLE FROM LAST HARVEST. INDIVIDUAL MARK STAND BA TO 100-120BA/AC, TARGET POOR QUALITY TREES FIRST FOR REMOVAL AND DO AN OVERALL THIN ELSEWHERE.										
112	R6	13	49	69	red pine	immature	thinning	1		
comnts Fmd : 1/3 ROW THINNED LAST YOY. BA IS STILL PRETTY HIGH AND GROWTH RINGS ARE TIGHT. REDUCE BA TO ROUGHLY 120 SQ.FT/AC. REMOVE POOR FORMED AND POOR QUALITY TREES FIRST AND DO AN OVERALL THINNING TO GET DESIRED DENSITY AND SPACING.										
119	A6	3	69	60	aspen (upland)	mature	final harvest	2		
comnts Fmd : NOT CUT WITH ADJACENT 1979 TSALE BECAUSE OF UNCERTAIN SURVEY LINE. PROBABLY TO SMALL FOR COMMERCIAL HARVEST, HABITAT CUT OR LEAVE ALONE.										
212	R6	5	49	69	red pine	immature	thinning	1		
comnts Fmd : 1/3 ROW THINNED LAST YOY. BA IS STILL PRETTY HIGH AND GROWTH RINGS ARE TIGHT. REDUCE BA TO ROUGHLY 120 SQ.FT/AC. REMOVE POOR FORMED AND POOR QUALITY TREES FIRST AND DO AN OVERALL THINNING TO GET DESIRED DENSITY AND SPACING.										
Total Acres.....		322								

GLADWIN FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 4

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
105	A6	32	69	65	aspen (upland)	mature	final harvest	1		

TREATMENT LIMITING FACTORS: Blocked by other physical obstacle

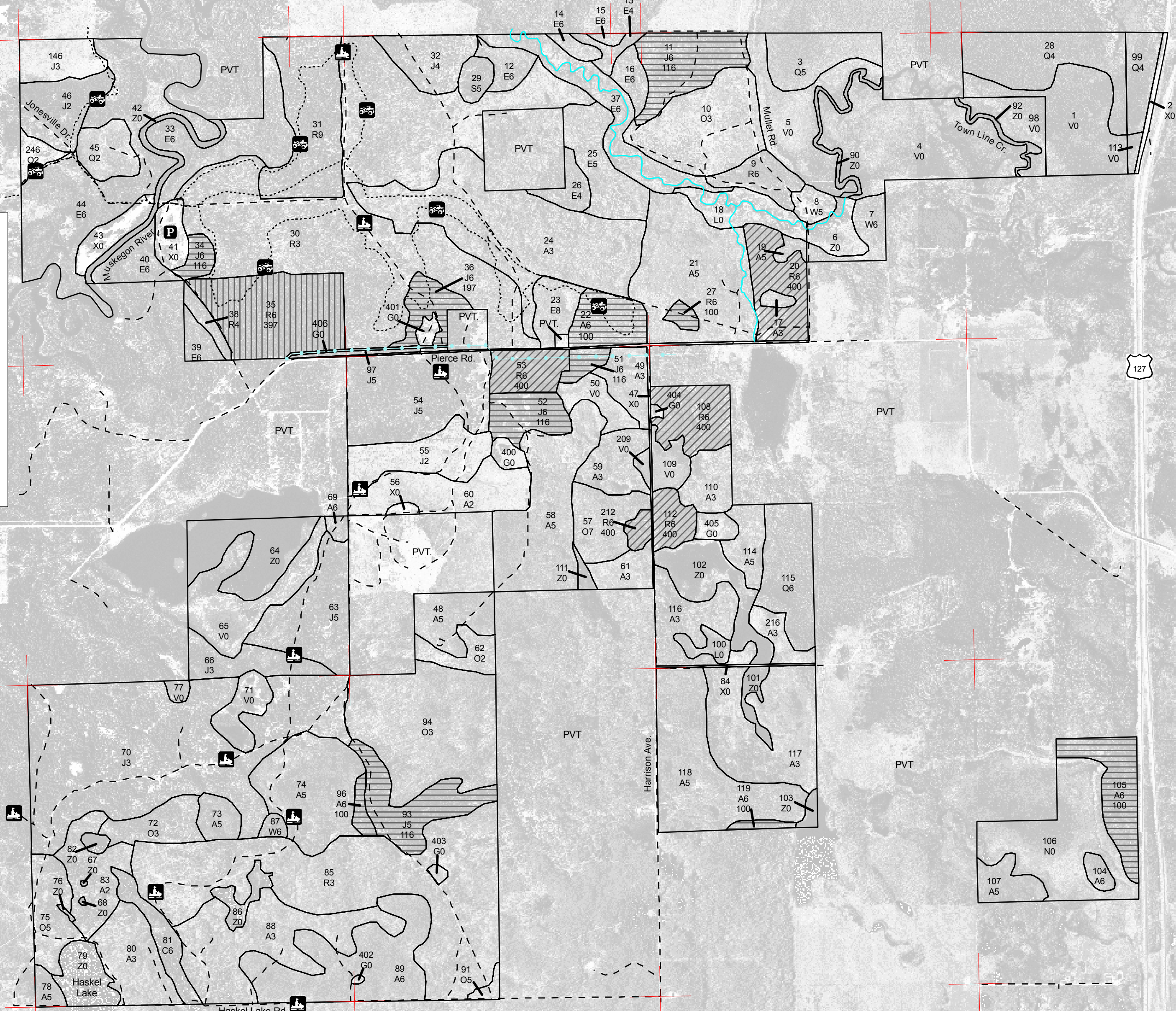
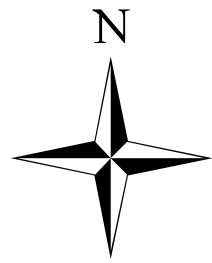
comnts Fmd : WAS PRESCRIBED LAST YOY FOR HABITAT CUT OR HARVEST, NOTHING OCCURRED. ASPEN IS BIG AND BUMPY, PROBABLY 90% PULP. 2" SPEC ASPEN, MAPLE, AND MIXED HARDWOODS, 6" SPEC OAK AND LEAVE ROUGHLY 1 OAK/ACRE AS SEED SOURCE AND VISUAL BUFFER. IF HARVESTED CUT ONLY TO FENCE ALONG 127..THIS WILL ALLOW ~20' OF VISUAL BUFFER. THERE IS A CREEK AT THE NORTH END OF STAND THAT MAY MAKE IT VERY DIFFICULT TO HARVEST THE FAR NORTH WEST END OF THE STAND. WOOD WOULD HAVE TO BE FORWARDED ALONG FENCE ADJACENT TO 127 ONTO PRIVATE PROPERTY AND DECKED DURING THE WINTER ONLY DUE TO WET GROUND, THIS IS PROBABLY FEASIBLE. RAY HAMSHER PROPERTY OWNER TO THE SOUTH SOUNDS VERY OPEN TO HAVE HIS DAUGHTER CUT THE TIMBER WITH A NEGOTIATED SALE. HOME 989-539-7304 CELL 989-233-5800

Total Acres..... 32

Field Map

Compartment 4
 T20N, R4W, Sec. 4-8, 16-18
 T20N, R5W, Sec. 1, 12, 13
 County: Clare
 Unit: Gladwin
 YOE: 2007
 Acres: 3,718 GIS Calculated
 Stand Examiner: Kelly Standerfer
 Map Revised: 8/19/2005
 Map Phase: Pre-review

1	6	5	4
12	7	8	
13	18	17	16



Legend

- Miris Corners
- - Poor Dirt Roads
- Trails
- Powerlines
- Water Features
- P** Parking Lot
- Snowmobile Trails
- ORV Trails
- US Highway
- Stand Boundary
- 100 - Final harvest
- 116 - Final harvest/Planting
- 197 - Final harvest/Other/Prescribed burning
- 397 - Shelterwood-seed/Other/Prescribed burning
- 400 - Thinning

Name Poor Dirt Roads
 Name Water Feature

