



**GWINN FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 234 ENTRY YEAR: 2009

Compartment Acreage: 1304 GIS acres County: 52

Revision Date: 03/15/2007

Stand Examiner: Warren J Heikkila

Legal Description: T45N, R29W, Sec. 08, 10, and 11 .

Management Goals: For the 10 yr. period beginning in 2009, we will strive to perpetuate or increase the component of oak, birch, and dry, mesic conifers in a non-plantation setting, where they now occur. Enhancement of aesthetics through in-stand retention principles for all treatments is also a priority here.

Soils and topography: Ranging from relatively level wetlands such as swamp conifers, treed bogs, tag alder, and bog/ marshlands, to upland which is only rolling to moderately hilly. Generally good logging chance throughout, though most trail roads are very narrow and in need of gravel & general upgrading.

Ownership Patterns, Development, and Land Use in and Around the Compartment: State ownership borders roughly 50% of the Cmpt boundary, with the remaining private ownership divided among corporate on the west, larger private hunting club lands on the east, and some relatively small private forest holdings, mostly non-industrial private owners with recreational objectives on the remainder. Development is very limited with a group of seasonal cottages or hunting camps mostly concentrated around Helen Lake and vicinity.. Production of forest products along with low key recreational activities such as hunting, mushroom & berry picking, riding ORV's or snowmobiles, hiking, fishing, and trapping make up the land uses here.

Unique, Natural Features (include only non-site specific and non-sensitive information): The Michigamme River in Sec 8, Helen Lake, and various un-named ponds make up the unique natural features in this area.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): Various old logging railroad grades & spurs are quite common in the area. Some are used for trail roads and snowmobile trails at present.

Special Management Designations or Considerations: Special Conservation Area stands are located in Sec 8, providing a riparian buffer to the Michigamme River. See attached table for stand numbers. SCA Stand: 72

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations: Maintain and protect riparian "Special Conservation Area" stands as movement corridors and core habitat for a multitude of game and nongame wildlife species/communities. Promote habitat legacies in all "Special Conservation Area" stands, such as standing and fallen snags, supercanopy trees, and natural processes/disturbances. Ensure that some mature lowland conifer and spruce/fir upland stands (composed predominantly of evergreen conifer species, large cone/seed crop potential, closed canopies, minimal edge effect, and persistent dead and live branches creating complex

vertical structure) are perpetually present and conserved. Harvested lowland conifer and spruce/fir stands need to be regenerated to evergreen conifer species in similar proportions found in the canopy pre-harvest. Upland conifer types are to be managed in a sustainable manner to provide species, structural, and size-class diversity. Strive for best possible age class distribution in aspen stands while retaining a diversity of tree species. Several small openings will be maintained to sustain openland habitat. Plantings of red pine, white pine, and/or oak will be made by wildlife division to supplement two under-stocked hardwood sapling stands and one red pine stand being thinned.

Mineral Resource and Development Concerns and/or Restrictions:

Vehicle Access: County Road FNN, the Casey Lake Road, provides primary access to the compartment, with poorer two track dirt roads being tributary to this in order to access most areas of the compartment. Some of these were originally logging railroads. The parcel in Sec 8 has primary access via the paved State hwy M-95, and trail road “Snowy Owl Lane”..

Survey Needs: No survey needs in 2009.

Recreational Facilities and Opportunities: The main recreational feature in this compartment is the groomed snowmobile trail passing east-west through Sec 10 & 11. The Moose Country Snowmobile Club of Republic grooms this under contract with the State DNR. .In addition to this, only low key recreational opportunities for activities such as hunting, trapping, fishing, hiking, mushroom & berry picking, ORV riding, etc. exist in this compartment.

Fire Protection: This compartment is included within the “581 Zone Dispatch” area which provides for a pre-planned dispatch of specified fire equipment from within the Gwinn and Crystal Falls Mgt. Units, dependent upon the severity of forecast burning conditions for a specific day. Areas of jack/red pine cover types with the encroachment of recreational seasonal and/or residential dwellings have warranted this pre-planning. Mutual aide agreements with local volunteer fire departments also provide critical fire suppression response, especially in the area of structural fire and/or protection, and evacuations.

Additional Compartment Information: Mich. Natural Features Inventory information of record.

	Ospreys to the s. Loons to the e, s, sw and w. Bald eagles to the w and nw. Great blue heron rookery to the nw. Red-disked alpine to the ne.	IX.3.2	Mixed Conifer Swamp, Spruce-Fir-Cedar Forest, Shrub Swamp/Emergent Marsh, White Pine-Red Pine Forest
	Potential for eagle, osprey, and great blue heron rookery. Potential for moose and wolf. Potential for wood turtle. Potential for frigga fritillary, freija fritillary and red-disked alpine in bogs.		
	Potential for auricled tway-blade, veiny meadow rue, western dock, Farwell's water-milfoil, alternate leaved water-milfoil and linear-leaved gentian along riparian areas.		

- **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

ESCANABA RIVER STATE FOREST

GWINN FOREST MGT UNIT

MARQUETTE COUNTY

COMPARTMENT: 234

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		52	164		405	10	4	37	11										683
Black Spruce										19								3	22
Bog or Marsh	60																		60
Grass	27		6																33
Jack Pine			17		1			4		1									23
Mx Swmp Cnfr																		4	4
Oak										8								9	17
Paper Birch								10											10
Red Pine						33			64									104	201
Spruce Fir				4	18		25	14											61
Treed Bog	132																		132
Upland Hdwds		26																17	43
Water	15																		15
Total	234	78	187	4	424	43	29	65	75	28								137	1304

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

ESCANABA RIVER STATE FOREST

GWINN FOREST MGT UNIT

MARQUETTE COUNTY

COMPARTMENT: 234

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	683																										683	
S Black Spruce		22																										22
V Bog or Marsh			60																									60
G Grass					33																							33
J Jack Pine							23																					23
Q Mx Swmp Cnfr												4																4
O Oak														17														17
B Paper Birch															10													10
R Red Pine															201													201
F Spruce Fir																			61									61
D Treed Bog																						132						132
M Upland Hdwds																								17		26	43	
Z Water																									15		15	
Total	683	22	60		33		23					4		17	10	201			61			132		17	15	26	1304	

ESCANABA RIVER STATE FOREST

GWINN FOREST MGT UNIT

MARQUETTE COUNTY

COMPARTMENT: **234**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	11331 Cds	Hardwood	1480 Cds
Hardwood	23 Mbf	Softwood	503 Cds
Softwood	2212 Cds	Softwood	35 Mbf
Softwood	1775 Mbf	Sum CutVol	2053 Cds
Sum TotVol	17139 Cds		
Total Cmpnt Acres		Acres Proposed For Cut.....	114
1304			

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
2	A2	25	16	62	aspen (upland)	immature		0	other - specify in remarks	
<p>comnts Fmd : Was commercially cut in 1990-91 by Oscar Antilla from Republic under permit #17-89-01, "Murphy's Grade Aspen Block". All oak was left as well as 101 birch seed trees were marked to leave in areas that lacked aspen. Access was from the southwest corner of the stand via a new road built off of Murphy's Grade (bermed upon sale completion). Aspen regen is patchy in places (clone character) and red maple stump sprouts are a significant component of this stand as well. Thus there are semi-open patches, etc., and would possibly be an area where Wildlife may want to plant patches of white pine for dry-mesic conifer goals. Trace of jack pine & fir in stand. UNDER PLANT PINE AND OAK.</p> <p>Wld : Plant red pine, white pine, and oak. Located in the W1/2NE of Sec 11.</p>										
3	A6	37	62	54	aspen (upland)	mature	final harvest	1		
<p>comnts Fmd : Final harvest with reserves. For reserves, consider white pine, cherry, most of red pine (a few could be marked if desired), most of birch and maple, & some or all of white spruce. Also reserve potential den trees for wildlife. I did not see any oak though there may be a trace. There is more conifer in this stand than in the surrounding area, which is good for diversity. Mgt objective is actually for a mixed stand. At least a portion of the red pine present is a result of past planting (see comment for stand #5) or disking and seeding. Some cutting probably occurred here in 1974 under Mead's permit # 12/73A. Lastly, leave an uncut buffer of a chain or so along the bog edge on the north end. STICK NEST ALONG ROAD.</p> <p>Wld : Located in the E1/2NW of Sec 11 for the most part. Strive to maintain the mixed forest condition. Leave the majority of the red pines by ensuring that a full range of the existing diameter classes is maintained. Leave all cherry, elm, oak, white pine, black spruce, and white spruce. Leave 4 to 6 white birch per acre, including some stems from the larger size classes. Identify any vernal or perenial wetlands and buffer appropriately. Area supports good hard mast production from beaked hazel. Strive to leave trees with better cavity development.</p>										
6	R9	22		63	red pine	unevenaged	shelterwood-prep	2	other - specify in remarks	
<p>comnts Fmd : For 2009, -- shelterwood prep cut with reserves. Reserves are possibly all white pine, most of the red pine (light thinning where needed), stump diameter cut on white spruce, leave a significant portion of birch & maple (especially where visible from County Rd.). Perhaps stump diameter cut on fir & black spruce also. Aspen & birch are overmature - potential den trees possible in some of them. /// Sale permit #127-06-01 "Casey Lake Road Sale", cut commercially by Minerick Logging, Inc. in July 2006 was a special needs sale requested by the Marquette County Road Commission to accommodate their road widening plans there. Approx 70 trees (mostly red pine) were marked with Mark Hamel of the County designating the trees needed to be cut. Area covered was less than one acre. An "S" curve in the road in a red pine grove was the nucleus of the project. CREATE LARGER CONOPY GAPS\UNDERPLANT WITH WHITE PINE.</p> <p>Wld : Located in the W1/2NE of Sec 10, west side of County Rd, for the most part. Retain all black spruce and a full range of diameter classes from the exsting white spruce associates. Leave all oak, cherry, and cedar. Leave at least 3 to 4 white birch per acre. Leave a portion of the red maple population scattered across the stand. Do not enter stands 27 (V0) or 44 (D0) by keeping timber sale boundary in upland.</p>										
9	F6	13	58	58	spruce-fir (uplands- including upland black spruce)	mature	seed tree	2		
<p>comnts Fmd : Cutting will be a seed-tree cut with reserves. Cover type is a tossup between birch & spruce/fir. Central portion is a knoll or low hill heavier to birch, but surrounding area is heavier to conifer. Since our objective here will be dry-mesic conifer, we will go with "F" as the cover type average for the whole stand. Some variability in ages in conifer, and birch is older. Some mortality & windthrow present. Possibly this stand could be accessed in non-winter weather from the southwest end, otherwise it is a rather short length of frozen road that would be needed. I looked at this in Feb. and it appeared to be mostly semi-high ground at this southwest corner crossing. /// We wish to leave a seed source for spruce/fir (either individual trees or small clumps/patches). And also for in-stand retention , we would like to leave some birch with the dual purpose of providing a seed source. Other reserve species would be white pine, most of the red pine (possibly mark a few where thinning is desired), cherry, cedar, and use a stump diameter on white spruce. Also reserve any potential den/nest wildlife trees that can be identified. EAST HALF SUMMER SHELTERWOOD CUT FOR BIRCH.</p> <p>Wld : Located mostly in the SENW & SWNE of Sec 10, north of snowmo trail. Stand was called B6 last entry. Wildlife has some reservations that need to be discussed regarding the treatment of this stand. No cutting to be done within stand 44 as boundary of timber sale will stay in upland.</p>										

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
14	M2	26	5	55	white pine	immature		0	planting	
<p>comnts Fmd : I coded a white pine planting by Wildlife under cultural practices, but this is subject to Wildlife review and approval. It can be dropped if this is not a suitable site. /// Was commercially cut summer of 2002 by Roy Nelson Jr. III, permit #108-99-01, "Helen Lake Sale". All oak, cherry, and cedar was left, as well as birch seed trees (marked green) in this stand. Only marked pine was cut, plus of course the aspen, maple, unmarked birch, jack pine, spruce/fir, etc. Access was from the southwest corner of stand. Presently in 2007, birch has failed to restock this stand, although I did find a trace of birch, 2 to 3 ft tall within the raspberry (perhaps that's what saved it from browsing). Overall the regen is sparse and red maple is probably the most prevalent - both stump sprouts and seedlings, (it has had heavy browsing from deer). Some aspen clones are present and doing well, but most of this stand lacked aspen before cutting. Fir is also present though somewhat patchy, and it will be a component of the future stand. Also the residual oak, white pine, and a few living birch seed trees are present.</p> <p>Wld : Plant red pine, white pine, and oak. Located in the N1/2SW of Sec 10.</p>										
37	R6	10		66	red pine	high risk	shelterwood-prep	1		
<p>comnts Fmd : Shelterwood-prep cut with Reserves. This is a natural stand. Numerous red maple saplings in understory in places. Aspen is overmature & high risk. Stand is coded poletimber simple because aspen & maple exceed red pine stocking. From simply an average diameter, this stand could be considered a sawlog stand. /// Leave trace species such as oak, cherry, white pine, white spruce, etc. Red pine could be a light marking to salvage high risk trees.</p> <p>Wld : Located in the N1/2NE of Sec 11.</p>										
38	R6	23	45	57	red pine	two aged	delayed removal	2		
<p>comnts Fmd : Delayed removal cut with Reserves. Red pine here dates back to a planting in May 1962. Most trees were probably suppressed by overtopping aspen, jack pine, etc. since they are still of small diameter & height overall and would benefit from a release cut of competing species. Stocking also is inadequate of red pine. This opens the door for other mgt options here if for example Wildlife would prefer an alternate mgt objective specie. Probably some of the aspen/jack pine should be left for wildlife in any case (eg. as potential den/nest trees, etc.). Also for reserves, leave trace species such as birch, oak, spruce/fir, etc. The jack pine & aspen are of older age class, probably about 60 yrs or so. ASSESS POST CUT FOR UNDERPLANTING.</p> <p>Wld : Located somewhat in the center of the N1/2 of Sec 11, oriented north-south. Infrequent red oak in overstory - retain this. Leave all cherry, white birch, and elm. Leave 3 to 4 mature apen per acre. Leave some scattered mature jack pine. Leave all black and white spruce. Attempt to leave most white pine. Leave a portion of the larger diameter red pine.</p>										
40	A6	5	68	72	aspen (upland)	high risk	final harvest	2		
<p>comnts Fmd : Final harvest with reserves. Consider for reserves: oak, cherry, red & white pine, birch (some or all), and any spruce/fir if any present. There is a pothole and slope inclusion in the stand that is actually a red/jack pine mix, but not significant enough to make a separate stand. Save any potential den/nest trees for wildlife as well. Old plow fire lines within stand.</p> <p>Wld : Located in the NENW & NWNE of Sec 11.</p>										
50	S6	4	86	45	black spruce-swamp	mature	seed tree	1		
<p>comnts Fmd : Seed tree cut with Reserves. This stand is situated on mostly what I would consider to be high ground (not wet). Could be summer logged. Some windthrow in west end. Generally quite healthy with good growth and average size. Hold portion south of snowmo trail (stand #8) for 10 more yrs for size class diversity. We will cut the portion north (stand #50) of the snowmo trail with stand #9 since we will access stand #9 through this spruce. A trace of aspen & birch present. An old railroad grade spur exists in this small stand which could be used as access route where ground is soft (just a short stretch). This grade is situated northeast/southwest which indicates the pine cut in the railroad logging days was hauled westward probably to the Michigamme river or to the sawmills at "Floodwood". /// Seed tree cut with reserves (birch, aspen, pine, white spruce). Maintain a seed source for spruce, note that the standing spruce outside of the sale also provide a seed source - at least for an area equal to the average total tree height. STAY OUT OF LOWLANDS.</p> <p>Wld : Located in the approx center of Sec 10, north of snowmo trail. Approximately 85% of stand area is upland. Will want to retain black spruce in regular pattern across stand to provide proper seed dispersion and habitat. Try to leave a full range of black spruce tree sizes. Should also leave some clumps of black spruce as part of this grid. There should be black spruce seed source within 1 to 2 tree heights of all areas cut. Regeneration success of this stand will need to be closely monitored. No other alternate MO is acceptable. Other overstory associates are 11/2, 32/2, 20/2, and 3/2. Leave some white birch scattered across site. Leave all cherry, cedar, hemlock and white pine. Do not cut into stand 44 (D0) which means stay on upland when placing boundary line of sale.</p>										
400	G0	7			grass	nonstocked		0	opening maintenance	
<p>comnts Fmd : Historically, there was quite a large open grassland complex in this area, extending into private property in Sec 12. Quite likely, sharptail grouse were residents here at one time. Numerous old pine stumps are evident from a pre-settlement forest, which subsequently burned over probably on many occasions. One of these was a prescribed burn in 1977 with Norm Korte, Gwinn 50, overseeing the burn. James Jeske was Area Biologist at this time.</p> <p>Wld : Rough surface, slightly rolling terrain. Sweetfern and blueberry domiante ground flora to south and north. Sedge dominates in center, with lesser patches of blueberry, bracken fern, and sugerplum. Stand is still 80% open, though have lost some area due to encroachment. Jack pine and aspen poles present, as well as jack pine and aspen saplings. Use chainsaw or other mechanical means to remove jack pine, aspen, and cherry brush. Located in the NENE of Sec 11.</p>										

GWINN FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 234 Entry Year: 2009

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
401	G0	5			grass	nonstocked		0	opening maintenance	
<p>comnts Fmd : Perhaps a natural frost pocket or "bowl" helping to keep this area open. Some encroachment on edges by aspen & jack pine. I assume this stand was included in the 1977 prescribed burn. In the past decade or so, areas like this have become attractive to badgers. Also see comments for stand # 400 which also are appropriate here as well.</p> <p>Wld : Area approximately 80% open. Rolling terrain. Blueberry, sweetfern, and bracken fern. Remove jack pine, red pine, and aspen (poles and saplings). Large oaks in south. Few larger red pine will be left. Located in the SENE of Sec 11.</p>										
408	G0	4	15		grass	nonstocked		0	opening maintenance	
<p>comnts Fmd : FTP W-31-278 covers this opening. As a post-sale treatment, this area (a landing site during timber sale) was cleared with rockrake, disked, & seeded to grasses and legumes. Work done in August of 1992. Located within stand # 2.</p> <p>Wld : Located in the W1/2NE of Sec 11. Gently rolling site with smooth surface. 95% openland. Several scattered larger red oaks. White pine and jack pine saplings. Several white birch snags. Nice patches of birdsfoot trefoil and grass - approximately 40% of area. This forage is of moderate to good quality. Rest of area is dominated by sweetfern. Use chainsaw to keep central portion open.</p>										
412	G0	2			grass	nonstocked		0	opening maintenance	
<p>comnts Fmd : Currently in 2007, opening has been seeding in with some conifer, mostly jack pine, some red pine. Still fairly open however. FTP #W31-278 applies to this opening. Notes indicate it was Tordoned in 1992. I don't believe this stand received any rockrake or disking treatment. Located between stands # 3 & 38.</p> <p>Wld : Located in the SENWof Sec 11, north of Murph's Grade. Site is level and smooth - operable for brushhog. Approximately 90% open range. 1/3 of total area near road supports a moderate to good quality grass forage. The remainder of site is covered with bracken fern, sweetfern, and blueberry. Light crop of blueberries this year. Cherry brush encroaching. Jack pine and red pine saplings also present. Random red pine, jack pine, and balsam fir poles. Prescribe for opening maintenance with chainsaw to remove saplings.</p>										
Total Acres.....		183								

**Proposed Treatments
With Limiting Factors**

Compartment: 234

Entry Year: 2009

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

