



**GWINN FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 224 ENTRY YEAR: 2009

Compartment Acreage: 1348 GIS acres County: 52

Revision Date: 03/15/2007

Stand Examiner: Warren J Heikkila

Legal Description: T46N, R29W, Sec. 22, 23, 24, and 25 .

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 and wildlife 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. Portions of the compartment require winter logging at least for access.

Ownership Patterns, Development, and Land Use in and Around the Compartment: State ownership borders a good portion of the Cmpt boundary on the north and east,- with the remainder being bordered by private ownership about equally divided among corporate and some relatively small private forest holdings, - mostly non-industrial private owners with recreational objectives. Development is very limited with a scattering of seasonal cottages or hunting camps. One exception to the lack of development is the 1000 foot television transmission tower located just southeast of the compartment, and operated by Northern Michigan University. 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): A number of bodies of water such as Skinnies, Petcuson, and Third Lakes, as well as some un-named ponds and creeks make up the unique natural features in this area.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): County Roads FFH & FFI (established by the McNitt Act of 1931) point to the historic use of the area for homestead sites in the earlier years of the 20th century. Remnants of these persist in the form of bldg foundations, abandoned farm fields bordered by fencerows of rock , cedar posts and barbed wire, and a lone apple tree or lilac bush.

Special Management Designations or Considerations: **Special Conservation Area stands are located in the compartment generally to act as riparian buffers along the water bodies or courses. See attached table for stand numbers.** SCA Stands: 17, 20, 24, 29, 30, 47, 55, 56, 57, 59, 61, 66, 69, 83

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 mature lowland conifer and spruce/fir upland stands (composed of a high proportion 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 the same proportion 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.

Mineral Resource and Development Concerns and/or Restrictions:

Vehicle Access: County Road FF (gravel) provides primary access to the compartment from Republic to the west, and County Road CF (paved) provides access to CoRd 581 on the east. Secondary tributary roads leading into the compartment are in general poor dirt two track roads, though some are designated County Roads providing legal access for the public. Permission to cross private property is a consideration for some sales as well.

Survey Needs: No survey needs in 2009.

Recreational Facilities and Opportunities: The main recreational feature in this compartment is the groomed snowmobile trail passing through the NENW of Sec 22. 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.

	Bald eagle to the sw and ne. Great blue heron rookery to the nw. Red-disked alpine to the e. Kirtland's warbler to the e. Loon to the se.	IX.3.2	Mixed Conifer Swamp, Hemlock-White Pine Forest, Spruce-Fir-Cedar Forest, Shrub Swamp/Emergent Marsh, White Pine-Red Pine Forest, Jack 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.		

- **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: 224

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		3	64	163	16					10									256
Black Spruce			5	4	10			5	151		40	6						33	254
Grass	29																		29
Jack Pine		23	32																55
LowInd Brush	137																		137
Mx Swmp Cnfr									20									85	105
Paper Birch								1		19									20
Red Pine																		190	190
Spruce Fir		79	49	5	25			11	2		4								175
Treed Bog	23																		23
Water	3																		3
White Pine																		101	101
Total	192	105	150	172	51			17	173	29	44	6						409	1348

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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: 224

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	246																		10								256
S Black Spruce		254																									254
G Grass					29																						29
J Jack Pine							55																				55
L Lowlnd Brush									137																		137
Q Mx Swmp Cnfr											105																105
B Paper Birch															20												20
R Red Pine															177				13								190
F Spruce Fir																			175								175
D Treed Bog																						23					23
Z Water																									3		3
W White Pine																										101	101
Total	246	254			29		55		137			105			20	177			198			23			3	101	1348

ESCANABA RIVER STATE FOREST

GWINN FOREST MGT UNIT

MARQUETTE COUNTY

COMPARTMENT: **224**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	1941 Cds	Hardwood	481 Cds
Hardwood	2 Mbf	Softwood	317 Cds
Softwood	5522 Cds	Softwood	70 Mbf
Softwood	2070 Mbf	Sum CutVol	938 Cds
Sum TotVol	11607 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	
1348		73	

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
8	A6	10	83	60	spruce-fir (uplands- including upland black spruce)	high risk	final harvest	2		
<p>comnts Fmd : Final harvest with Reserves. Could be considered a removal also since we are releasing fir seedlings. This stand is essentially a hill or ridge in the center (with rock), and it was hit by severe windthrow in past decade. High risk for what is left. It's a tossup what to feature for a cover type from what's left (aspen & red maple came up a tie). Upland conifer will be the future stand since seedlings are now abundant, but a component of aspen and pine will not be unwelcome. Stand can be accessed from three sides (omitting the private east side). However, combine with stand #9 for sale purposes to make cutting more commercially feasible. Not a stand alone sale. Retention: leave red & white pine, OAK, CHERRY, BLACK & white spruce, and a few birch for aesthetics where appropriate. Not much else available.</p> <p>Wld : Leave 30 foot wide fringe of trees around perimeter of forest opening (stand 407). Retain all trees south of the 2-track leaving stand 407 and extending through this stand (this will provide buffer adjacent to waterbody). Leave all oak, cherry, white pine, red pine, black spruce and white spruce. Leave several white birch and red maple per acre, across breadth of stand. Where areas of stand are heavy to white birch, leave a higher density of white birch for habitat considerations. Located in the NWSW of Sec 24 for the most part.</p>										
9	R9	40		60	red pine	high risk	shelterwood-seed	1		
<p>comnts Fmd : Shelterwood-seed with reserves. Cover type is somewhat misleading (averages red & white pine together) in that the stand is not uniform throughout. Pine is heaviest in the south and east part. We have lost a significant volume of the non-pine component to mortality and windthrow in the last decade, which is to be expected considering this is one of the last stands to be cut in this area. For example, most of the aspen is now down in this stand. Birch is dying out. The high risk coding thus applies to the non-pine component - if we wait 10 yrs, there won't be anything to cut. I don't foresee cutting much pine except for high risk trees and thinning the heaviest patches where it would improve spacing and crown release. Where the stand has been opened up, fir regen has taken over being F2 to F3 in places. Where pine is lacking, we should allow this fir to carry through to maturity, but in areas of heavier pine, we should consider a post-sale burn if natural seeding of pine is not adequate. Thus portions of this stand may be considered for prescribed burn after cutting. Stand #10 to the north does have significant red pine regen in places esp. on skid roads. Lastly, rock and boulders are not lacking in this stand. For retention, there are trace species which could be left, such as oak, cherry, white spruce, yellow birch, ironwood, etc.. CUT IN WINTER.</p> <p>Wld : Leave some scattered white birch and red maple across breadth of stand. Leave all oak, cherry, hemlock, cedar, white spruce, black spruce, and white pine. Located in the SWNE & NWSE of Sec 24.</p>										
16	R9	13		56	spruce-fir (uplands- including upland black spruce)	unevenaged	removal	3		
<p>comnts Fmd : Removal cut with Reserves. Stand is difficult to get to being surrounded by swamps and creeks. Within the last decade, the stand suffered severe windthrow of the understory species and much of the spruce/fir is down. Birch is dying out. The pine weathered the wind quite well. Hardest hit was the north part, but fir seedlings 1 to 2 feet tall are abundant among the blowdown and will restock the openings. The swamp edges have the better timber at present. We will leave most of the pine, marking some high risk trees. However, because of the windthrow making the remaining timber volume marginal for a commercial operation, and the difficult access, - this stand should be a low priority sale. Can be cut if timber demand supports it. Could freeze a road across swamp stand #50 from the east (no creek to cross). Also could freeze a road from south from stand 25 but this would be a longer swamp road. With a portable bridge, we could come across creek from north stand #19. I used "F" as the mgt objective simply because all the regeneration on the ground now will develop into an "F" type in the future with a pine overstory component. Pine won't restock the area without a disturbance to scarify the soil, or a fire. Some pine will follow if we log here, but it will be a winter job. Method of cut is "removal" because we will be removing most of the overstory (except for the pine) from above the new spruce/fir regeneration resulting from the windthrow. Need at least 100 ft buffer along creeks.</p> <p>Wld : Leave all oak, cherry, white spruce, black spruce, hemlock, cedar, and white pine. Located in the SWSW of Sec 24, & N1/2NW of Sec 25.</p>										
76	F6	4	90	44	spruce-fir (uplands- including upland black spruce)	mature	removal	3		
<p>comnts Fmd : Removal cut with Reserves. See comment for stand #16. This stand also has difficult access & may not be practical for the small volume of timber involved. Stand was hit by same windstorm as stand #16, currently with down spruce/fir and F2 seedlings on the ground. More cedar in the area here, especially along creek. We can leave cedar, red & white pine (about a dozen pine total), and perhaps white spruce for retention. If we cut here - low priority sale, even if combined with stand 16. Trace of jack pine, birch, & hemlock. Leave trace species for retention. STAY OUT OF LOWLANDS.</p> <p>Wld : Retain cedar, white pine, red pine, and hemlock. Do not enter lowland conifer areas. Located in the NWNW of Sec 25, east of ELF row.</p>										

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status	
93	S6	6	105	40	black spruce-swamp	immature	seed tree	1			
<p>comnts Fmd : Seed Tree with Reserves as available. A somewhat small, isolated stand of older and larger diameter spruce. The small diameter component found in the rest of stand 23 is not present here - most everything is merchantable. Could also be labeled as high risk. Other than saving the seed trees and whatever submerchantable trees are present, not alot available for species diversity. LEAVE 10 TO 20 SQ. FT. FOR SEED. WORK WITH WILDLIFE ON SALE.</p> <p>Wld : Retain many full-canopied spruce as part of seed tree prescription in order to provide heavy cone crops for wildlife. Located in the SWSW of Sec 25.</p>											
Total Acres.....		73									

**Proposed Treatments
With Limiting Factors**

Compartment: 224

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

Field Map

Compartment 224
 T46N, R29W, Sec. 22-26
 County: Marquette
 Unit: Gwinn
 YOE: 2009
 Acres: 1,348 GIS Calculated
 Stand Examiner: Warren Heikkila
 Map Revised: 9/07/2007
 Map Phase: Pre-Review

Legend

- ◆ RLS Corners
- Miris Corners
- County Gravel Roads
- - - County Dirt Roads
- - - Poor Dirt Roads
- Trails
- Water Features
- × Gates
- ◆ Bridge
- TV Tower
- 🏠 Snowmobile Trails
- ▭ Stand Boundary
- ▨ Special Conservation Areas
- ▩ 100 - Final Harvest
- ▧ 200 - Seed Tree
- ▦ 300 - Shelterwood-seed
- ▤ 500 - Removal

