



**SAULT FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 105 ENTRY YEAR: 2007

Compartment Acreage: 1,917 County: Mackinac

Revision Date: September 19, 2005

Stand Examiner: Karen Rodock

Legal Description: T43N-R6W Section 22 - 24, Moran Township.

RMU (if applicable):

Management Goals: The compartment is located 5 ½ miles north of Brevort and 5 ½ miles south of Trout Lake on the Carp River Truck Trail, Caffey and Dells Mills Roads. The compartment is composed of a variety of lowland and upland types and species. The eastern half of the compartment is mostly upland types of red pine, aspen, upland brush and grassy openings. The western half of the compartment is mostly upland types of northern hardwood, aspen, upland brush and grassy openings. The lowland types are cedar, hemlock and mixed swamp conifers with some ponds and marsh areas. The Carp River flows through Section 24. The Carp River is designated as a wild and scenic in the stretch downstream on the Hiawatha National Forest. The South Branch of Carp River flows through Section 22 and the south west corner of Section 23. Stands along both rivers are to be managed to promote a larger component of conifer species to discourage beaver activities. Buffer management zones will be maintained along both the Carp River and South Branch of Carp River and its tributaries following the Best Management Practices guidelines and Fisheries recommendations. Some of the select and shelterwood management of the northern hardwood in the last decade was not completed under the timber sale contract and will be reauctioned to complete the management activities. The red pine stands within the compartment are being managed according to the red pine management guidelines and other available resources. Some of red pine will be final harvested to gain age class distribution in the red pine within the compartment and the surrounding lands. The young red pine stands will be monitored for regeneration, release needs, and insect and disease infestations. The area is heavily used by recreationists.

Soil and Topography: The majority of the compartment is on the outwash plain and lake plains on level to undulating ground. The higher ground soils are mostly Wallace Sand with Paquin Sand, and Paquin-Finch complex on the ridges in the lowland areas. The transition areas have Spot-Finch Complex and Finch Sand. The lowland areas mostly have the Markey-Spot-Finch Complex with some higher transition areas to the Paquin Sand and Wallace Sand. The other lowland soil types are Markey and Carbondale Muck, Finch-Dawson-Pullup Complex, Leafriver Mucky Peat, Leafriver-Croswell-Wainola Complex, Dinkey Muck in the Carp River and flooded Entisols are intermixed along the South Branch of Carp River drainages.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The north, west and south sections surrounding the compartment are in state ownership. The sections to the east, northeast, and southeast are in federal ownership on the Hiawatha National Forest.

Unique, Natural Features (include only non-site specific and non-sensitive information): Potential for raptors and Great Blue Herons to nest in the compartment exists and care will be taken to check stands for nests and take appropriate management action to protect the species. Northern Fen has been identified in the compartment. Any management in the surrounding area will follow the MNFI recommendations to protect the integrity of the Northern Fen. There is a potential for some rare, threatened, and special concern plant and animal species to inhabit the compartment. Stands to be managed will be checked for species of concern. Management will be modified if species are found within those stands per management guidelines for that species.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): One possible old homestead or camp area was found while inventorying the compartment with comments in the locked comment box in inventory database. Most of the red pine plantation in this and adjacent compartments were originally planted in the 1930's under the Civilian Conservation Corp program. The Carp River was used for river log drives in the early lumbering days.

Special Management Designations or Considerations: The Carp River has undergone stream bank restoration projects to reduce the amount of siltation into the river from the sandbanks. Conifer will be encouraged within the aspen stands along the banks of the Carp River and South Branch of Carp River and tributaries to decrease the amount of beaver habitat along the river. Snowmobile and ORV trails will need to have specifications in the timber sale contracts to protect the trail and provide for safety precautions around the trails.

Watershed and Fisheries Considerations: *Fisheries concerns:* This compartment is within the Carp River watershed, and contains portions of the Carp River, the South Branch of the Carp River, and some unnamed tributaries to the South Branch. All of these streams are Michigan Designated Trout Streams. This watershed supports populations of resident brown trout and brook trout, as well as anadromous species such as chinook salmon, pink salmon, coho salmon, and steelhead.

The prescribed 200 foot setback is appropriate for these waterbodies. It may be appropriate to leave Stand 56 uncut and let it naturally convert to balsam, as cutting may encourage aspen regeneration.

Wildlife Habitat Considerations: This compartment lies within the St. Ignace sub-subsection. Pre-settlement forest cover likely consisted of a white pine and hemlock mix with red pine and jack pine on the drier sites. In the low areas, tamarack, spruce and cedar appeared to be dominant. Species such as red maple, hemlock, birch, aspen and red pine were also present. Wind throw, fire, and beaver ponds were the likely forms of natural disturbance within this compartment.

The growing season last approximately 130 days. Extreme winter low temperature approaches -46° F. Annual snowfall averages 100 inches.

This is a compartment composed primarily of red pine plantation, with northern hardwood and aspen scattered throughout. While the species composition within the lowlands appears to be similar to that found in pre-settlement times, upland forest cover has changed substantially. Red pine plantations and aspen stands cover a major portion of what probably was mixed hardwood/conifer forest at one time.

Wildlife benefits that will likely result from the prescribed treatments in this compartment will include temporary openings as a result of final harvest of red pine and aspen. This will also promote age-class and structural diversity between these sites, maintaining species and structural diversity within the conifer component, and protecting the integrity of the stream corridor.

Wildlife species with the potential to benefit from the prescriptions include American toad, garter snake, purple finch, American woodcock, sharp tailed grouse, ruffed grouse, gray wolves, and white-tailed deer.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel. There is insufficient data to determine the glacial drift thickness. The Silurian Engadine Group subgroups below the glacial drift. The Engadine is quarried for stone/limestone three miles to the east. Gravel pits are not located in the area and potential may be limited. There is no current economic oil and gas production in the UP.

Vehicle Access: This compartment has very good access except for the portion of Section 24 on the east side of the Carp River. No roads extend from the north into this portion of the compartment. The Ozark Creek is just on the east side of the Section 24 boundary. The area prescribed for management has a small volume of available products to remove. This will make harvesting these stands more difficult. The access from the Carp River Truck Trail, Caffey and Dells Mills Roads is very good which are all DNR roads. The Dells Mills Road is in good condition with some maintenance completed in the past except the western portion from the Caffey Road west across the section line. The road is drivable but is in need of grading and graveling. The hand railing on the bridge across the unnamed tributary of the South Branch of Carp River is to be repaired by the snowmobile trail club this year. The Carp River Truck Trail and Caffey Road are in good shape except for the sandy areas of the roads in the very dry period in the summer. Periodic maintenance has been completed on both roads within the last 5 years with timber sale contract work and road and bridge funding on the south end of the Carp River Truck Trail. The two tracks are in good shape most of time with a few water holes - these should remain open. Any new roads for timber sales will be blocked to vehicle access when the harvesting is completed.

Survey Needs: No new survey projects are required for this compartment with adequate corners present.

Recreational Facilities and Opportunities: The Carp River Truck Trail, Dells Mills Road, and Caffey Road are used as snowmobile trails and part of the ORV trail runs on the Caffey and Dells Mills Roads. The compartment is heavily used for all types of recreational activities including motorized vehicle use, fishing, hunting, trapping, berry picking and nature viewing.

Fire Protection: The eastern half of the compartment has a potential for a moderate to higher intensity fire in the red pine area. The Thunder Alley Fire burned in 1999 through a portion of the compartment to the north. The west portion has lower fire intensity potential with the hardwood stands and lowlands. The problem of ground fire does exist in this portion of the compartment.

Additional Compartment Information: None

- **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

LAKE SUPERIOR STATE FOREST

SAULT STE. MARIE MGT. UNIT

MACKINAC COUNTY

COMPARTMENT: 105

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		24	6	19	13	62	57	9	49										239
Bog or Marsh	11																		11
Cedar									49	47			15						111
Grass	85																		85
Hemlock																		30	30
Jack Pine					15														15
Lowlnd Brush	51																		51
Lowlnd Poplr									6										6
Mx Swmp Cnfr									27	5									32
Paper Birch									8										8
Red Pine		163	103			34			411										711
Spruce Fir				8					2										10
Treed Bog	3																		3
Upland Brush	50																		50
Upland Hdwds			45															492	537
Water	18																		18
Total	218	187	154	27	28	96	57	9	552	52			15					522	1917

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

LAKE SUPERIOR STATE FOREST

SAULT STE. MARIE MGT. UNIT

MACKINAC COUNTY

COMPARTMENT: 105

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	239																										239
V Bog or Marsh			11																								11
C Cedar				111																							111
G Grass					85																						85
H Hemlock						30																					30
J Jack Pine							15																				15
L LowInd Brush									51																		51
P LowInd Poplr										6																	6
Q Mx Swmp Cnfr												32															32
B Paper Birch															8												8
R Red Pine																711											711
F Spruce Fir																			10								10
D Treed Bog																							3				3
U Upland Brush					3																				47		50
M Upland Hdws																									537		537
Z Water																									18		18
Total	239		11	111	88	30	15		51	6		32			8	711			10				3	47	537	18	1917

LAKE SUPERIOR STATE FOREST

SAULT STE. MARIE MGT. UNIT

MACKINAC COUNTY

COMPARTMENT: **105**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	13652 Cds	Hardwood	3817 Cds
Hardwood	769 Mbf	Hardwood	111 Mbf
Softwood	15206 Cds	Softwood	3560 Cds
Softwood	2235 Mbf	Softwood	713 Mbf
Sum TotVol	34866 Cds	Sum CutVol	9025 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	513
1917			

SAULT STE. MARIE MGT. UNIT

Proposed Treatments
With NO Limiting Factors

Compartment: 105 Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
8	M6	14		65	northern hardwood	unevenaged	selection	1		
comnts Fmd : Was selection marked on Pounding Hammer Sale. Stand was only partly cut with some log and mostly pulp trees left uncut. Need to reauction off the sale area.										
9	M6	84		65	northern hardwood	unevenaged	selection	1		
comnts Fmd : Was selection marked on Pounding Hammer Sale. Stand was only partly cut with some log and mostly pulp trees left uncut. Need to reauction off the sale area.										
12	M6	39		65	northern hardwood	unevenaged	selection	2		
comnts Fmd : Selection harvest to 90 basal area. Leave the hemlock.										
19	M6	12		65	northern hardwood	unevenaged	selection	2		
comnts Fmd : Part of Pounding Hammer which was not harvested. Stand is already marked selection. See lock comment box.										
20	M6	3		65	northern hardwood	two aged	selection	3		
comnts Fmd : Selection mark to around 80 BA and leave all hemlock and white pine.										
24	U1	3			grass	nonstocked		0	opening maintenance	
comnts Fmd : Treat with stand 25 when it is treated.										
25	A6	11	55	65	aspen (upland)	mature	final harvest	2		
comnts Fmd : Mortality to some of the aspen. Stand will regenerate to a mixture of aspen, red maple, balsam fir, and spruce.										
27	M6	9		55	northern hardwood	unevenaged	selection	3		
comnts Fmd : Open grown maple stand with good quality stems and very poor areas.										
29	M6	23		60	northern hardwood	unevenaged	shelterwood-prep	1		
comnts Fmd : Unharvested unit of Pounding Hammer sale. Shelterwood marked to around 50 BA leave tree marked.										
32	M6	8		55	northern hardwood	unevenaged	selection	3		
comnts Fmd : Open in areas with some mortality to the maple. Few white pine present which should be left.										
63	A6	46	50	65	aspen (upland)	mature	final harvest	1		
comnts Fmd : Mortality occuring to the aspen and birch. Need to leave a buffer along the stream if necessary. Wet in some areas. Stand will regenerate to a mixture of aspen, red maple, white birch, balsam fir, and spruce.										
65	R9	36	68	60	red pine	immature	final harvest	1	planting	
comnts Fmd : ORV trail runs thru the stand. Larger diameter stand. Clearcut, burn and replant to red pine.										
67	R9	43	68	65	red pine	immature	final harvest	1	planting	
comnts Fmd : Open in areas from the 1998 storm damage. Harvest, burn and replant to red pine.										
69	R9	1	68	70	red pine	immature	thinning	1		
comnts Fmd : Jack pine taken out in 1990 on Dells Mills Pine III. Thin to 120 BA.										
72	R3	38	3	60	red pine	immature		0	release	
comnts Fmd : Harvested in 2001 on Velvet Spaniel Pine , burned, trenched and replanted in 2002. Red pine is 2 to 4 feet tall. Continue release if necessary.										
73	R9	116	68	62	red pine	immature	thinning	2		
comnts Fmd : Thinned in 2001 on Taxonomic Choice Sale where jack pine was removed and strom damaged red pine. ORV trail whines through the stand. Thin stand to 120 BA.										
75	R3	97	3	60	red pine	immature		0	release	
comnts Fmd : Harvested in 2001 on Velvet Spaniel Pine , burned, trenched and replanted in 2002. Red pine is 2 to 4 feet tall. Continue release if necessary.										
77	R3	23	3	60	red pine	immature		0	release	
comnts Fmd : Harvested in 2001 on Velvet Spaniel Pine , burned, trenched and replanted in 2002. Red pine is 2 to 4 feet tall. Continue release if necessary.										

SAULT STE. MARIE MGT. UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 105 **Entry Year: 2007**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status	
82	R6	34	41	60	red pine	immature	thinning	2			
comnts Fmd : ORV trail whines thru the stand. Remove all jack pine plus row thin the stand . Rows run north to south. Keep at least 150 foot buffer from top of slope of Carp River.											
85	R9	24	68	70	red pine	immature	thinning	1			
comnts Fmd : Jack pine taken out in 1990 on Dells Mills Pine III. Thin to 120 BA.											
86	R3	5	7	65	red pine	immature		0	release		
comnts Fmd : Harvested in 1997 on Snow Flea Sale. Site was burned , trenched and planted in 1998. Good red pine of 3 to 7 feet tall. May check for red head sawfly problems and release as necessary. Part of stand 24 in compartment 104.											
98	A6	9	61	60	aspen (upland)	mature	final harvest	3			
comnts Fmd : Higher to lower ground. Mortality to aspen and balsam fir. Stand will regenerate to aspen, balsam fir, spruce and red maple.											
100	M6	1		55	northern hardwood	two aged	selection	3			
comnts Fmd : Should treat with stand 10 in compartment 106. Select down to 80 BA and remove aspen along edge off stand to get better aspen regeneration.											
418	G0	5			grass	nonstocked		0	opening maintenance		
comnts Fmd : Part of this opening is included in the harvesting on stand 19.											
422	G0	3			grass	nonstocked		0	opening maintenance		
comnts Fmd : Treat with stand 20.											
462	G0	2			grass	nonstocked		0	opening maintenance		
comnts Fmd : Clean out opening with stand 63 harvest.											
495	G0	45			grass	nonstocked		0	opening maintenance		
comnts Fmd : Harvest what can be added to the timber sale in stand 94.											
499	G0	5			grass	nonstocked		0	opening maintenance		
comnts Fmd : Harvest with stand 98. See locked box for comment.											
Total Acres.....		739									

**Proposed Treatments
With Limiting Factors**

Compartment: 105

Entry Year: 2007

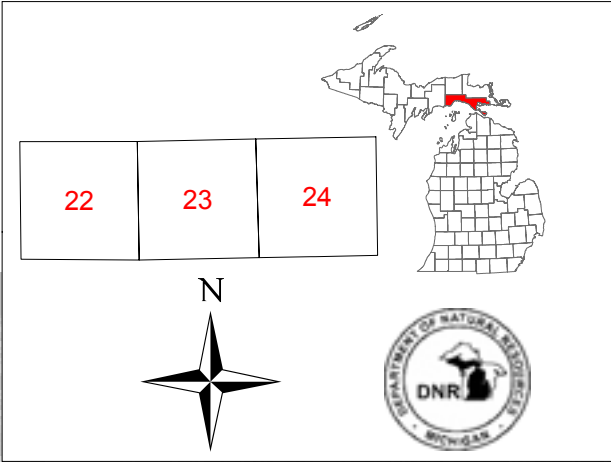
Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
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TREATMENT LIMITING FACTORS:

Total Acres..... 0

Field Map

Compartment 105
 T43N, R6W, Sec. 22-24
 County: Mackinac
 Unit: Sault Ste. Marie
 YOE: 2007
 Acres: 1,917 GIS Calculated
 Stand Examiner: Karen Rodock
 Map Revised: 9/23/2005
 Map Phase: Pre-review



- Legend**
- ◆ RLS Corners
 - Miris Corners
 - ▬ Gravel Roads
 - - - Poor Dirt Roads
 - - - Closed Roads
 - ⋯ Trails
 - Water features
 - ☎ Snowmobile Trails
 - ☎ ORV Trails
 - Stand Boundary
 - ▤ 026 - Opening Maintenance
 - ▥ 053 - Release/Ground Application
 - ▧ 100 - Final Harvest
 - ▨ 116 - Final Harvest/Planting
 - ▩ 117 - Final Harvest/Planting/Prescribed Burning
 - 400 - Thinning
 - 700 - Shelterwood-prep
 - ▬ 800 - Selection
- Name Gravel Roads

