



ESCANABA FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 24 ENTRY YEAR: 2008

Compartment Acreage: 441 County: Menominee

Last Revision: August 9, 2006

Stand Examiner: Dustin Salter; Forester, FMFMD, Bill Rollo and Craig Albright, Wildlife Division

Legal Description: T35N R28W Sections 19, 20, and 21

Management Goals: This compartment consists primarily of upland sites, with a few drainages and lowland conifer swamps mixed in. The upland areas consist primarily of oak and aspen, with two northern hardwood stands. The scrub oak within this compartment is over mature and is dying out. The majority of the oak and aspen stands within this compartment are growing on Grayling sand. This limits the number of species that will grow and survive in this area. There are a number of stands that have been treated in the recent past for oak wilt disease and there are a couple of pockets that still need to be. The stands where all of the oak has been removed to help stop the spread of oak wilt have not filled in with other species. A number of the oak stumps have stump sprouted along the edges of the stands. These sprouts will need to be herbicided to prevent the disease from spreading outside of the containment zone. Only one stand will need to be herbicided. We will be harvesting two oak stands that are over mature, before the tree's die out and they lose the ability to stump sprout. We will also be final harvesting four aspen stands. Two hardwood stands will also be treated. One will be thinned, with the intention of improving sawlog production. The other stand will be marked heavier and than scarified to try and regenerate the hardwood species already present. This stand has a fairly thick sedge mat. Another stand will also be scarified to allow the seed tree's already present to fill in the stand. Two lowland conifer stands will also be treated, with the management objective of regenerating tamarack.

Soil and Topography: This compartment contains: Grayling sand; Amasa very fine sandy loam; Onaway-Rousseau complex; Lupton-Tawas association; Cathro-Ensley complex; among a few other minor soil types. The majority of the compartment contains upland soil types. The terrain is level, with some gently rolling hills. These areas are excessively to well drained. The soils are primarily sand and sandy loam over loamy sand. The lowland areas are level and poorly drained, they are primarily black muck over sand and sandy loam.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment does not border any other state land. There are a number of other compartments in this general area, though. There are a number of individual private forties around and within the state forest boundaries for this compartment. There is a private hunting club that owns approximately 800 acres on the West side of this compartment. There are a few cabins and residences in very close proximity to this compartment.

Unique, Natural Features: None known

Archeological, Historical, and Cultural Features: None known

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations: The Shakey River flows through a forty along the north end of the compartment. The Shakey Creek flows into the Shakey River through three different forties of this compartment.

Wildlife Habitat Considerations: *Ecological Context:* This compartment is in a landscape of sandy outwash plains. Historically, the plains supported jack pine and pin oak barrens, and knobs and thin soil areas supported red pine, white pine, jack pine, aspen, and red oak. Knobs covered with sandy till grew northern hardwoods and white pine. Fires

were a common natural disturbance regime. Aspen presently dominates many of the sites that were formerly red and white pine.

Recommendations: This very small, fragmented compartment lies in a landscape that had been shaped by fire prior to settlement. Relict plants with a prairie affinity (such as big bluestem) can still be found here. The west half of the compartment has high potential for management as savanna (grass, blueberry, upland brush, scattering of trees). This habitat is very rare, but is valuable to many wildlife species, including some of the more popular game species (deer, wild turkey). Accordingly, several oak and upland brush stands are prescribed for harvest and burning to restore savanna conditions. Several stands in the east half of the compartment will be treated with standard forestry methods.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand & gravel and postglacial alluvium and minor peat and muck. The glacial drift thickness varies between 10 and 50 feet. Beneath the glacial drift is the Cambrian Munising Formation. The Munising may have been used as a building stone in the past and it overlaps Precambrian aged rocks, which may have metallic and nonmetallic mineral potential. State land in Sections 19, 20 and 21 are currently leased for metallic mineral exploration. A gravel pit is located in Section 28 and potential appears to be good on the uplands. No economic oil and gas production has been found in the UP.

Vehicle Access: Vehicle access is very good through most of the compartment. X-1 Lane runs through part of this compartment, with a number of two-track roads branching off of it. There is eighty acres of this compartment that is separated from the rest of the compartment; which can only be accessed through private property.

Survey Needs: One corner will need to be set.

Recreational Facilities and Opportunities: There are no recreational facilities within this compartment. The primary uses of this compartment are hunting, orving, and snowmobiling.

Fire Protection: This compartment has the potential to have a large fire. The majority of this area is very dry, with quite a bit of dead oak on the ground, along with some jack pine mixed in. Access is very good, though. There are some water resources within the compartment, but there are a number of areas to obtain water from that are in close proximity to this compartment.

Additional Compartment Information:

****** Cover type details, proposed treatments and stands designated as FDF are listed in the attached reports:**

- 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 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

ESCANABA FOREST MGT UNIT

MENOMINEE COUNTY

COMPARTMENT: 24

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			60				22	13											95
Black Spruce										18									18
Bog or Marsh	3																		3
Cedar													4						4
Grass	2																		2
LowInd Brush	5																		5
Marsh	2																		2
Mx Swmp Cnfr			6					18			3								27
Oak		21								54	5								80
Spruce Fir			8																8
Swamp Hrdwds								21		9									30
Tamarack			15							5									20
Treed Bog	1																		1
Upland Brush	68																		68
Upland Hdwds										78									78
Total	81	21	89				22	52		164	8		4						441

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

ESCANABA RIVER STATE FOREST

ESCANABA FOREST MGT UNIT

MENOMINEE COUNTY

COMPARTMENT: 24

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	95																										95
S Black Spruce		18																									18
V Bog or Marsh			3																								3
C Cedar				4																							4
G Grass					2																						2
L LowInd Brush									5																		5
N Marsh											2																2
Q Mx Swmp Cnfr												27															27
O Oak														80													80
F Spruce Fir																			8								8
E Swamp Hrdwds																				30							30
T Tamarack																					20						20
D Treed Bog																						1					1
U Upland Brush																								68			68
M Upland Hdwds																								78			78
Total	95	18	3	4	2				5		2	27		80					8	30	20	1	68	78			441

ESCANABA RIVER STATE FOREST

ESCANABA FOREST MGT UNIT

MENOMINEE COUNTY

COMPARTMENT: 24

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	3540 Cds	Hardwood	2366 Cds
Hardwood	369 Mbf	Hardwood	224 Mbf
Softwood	1056 Cds	Softwood	486 Cds
Softwood	12 Mbf	Softwood	12 Mbf
Sum TotVol	5358 Cds	Sum CutVol	3324 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	
441		180	

ESCANABA FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 24

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
1	O8	5	96	50	oak	mature	final harvest	1	other - specify in remarks	
<p>comnts Fmd : This stand is a strip of oak left from a Jack pine stand that was cut about 10 years ago. This oak is over mature and should be cut. This stand also contains a couple of pockets of oak wilt that need to be treated. The stand should be cut to prevent the spread of oak wilt disease to adjacent oak. This stand does not need a plow line around it; except on the North end where it meets private property. We should treat this stand before April 1, 2007. This stand should than be trenched and planted with jack pine, when stand 12 is planted. This stand is growing on Grayling sand which does not support many species of trees. Kotar and the soil survey recommend growing jack pine on this site. The site index species used was pin oak. After pre-review it was decided to not plant this stand following the treatment of oak wilt, but to burn it with stand 5.</p> <p>Wld : Manage for opening/savanna. Combine with Stand 5 into a large prescribed burn. This will be a high priority prescribed burn for WLD in YOE 08. The larger oaks found in these stands will better mimick the oak savanna landscape. Many of the plant species found here are fire-dependant. Concur with FMFMD.</p>										
2	U0	3		48	upland brush	old growth (potential or actual)		0	other - specify in remarks	
<p>comnts Fmd : This stand was originally part of stand 7, but this area was cut to prevent the spread of oak wilt from the Epicenter that formed here. This stand was cut in 2004. There are a couple of small patches of aspen, but overall mostly upland brush. This stand should be trenched and planted with jack pine when stand 8 is treated. This stand is also on Grayling sand. After the pre-review it was decided to not plant this stand, but to burn it with stands 6 and 8 after stand 6 is cut. This stand is part of an ERA Oak-Pine Barrens. This stand will be managed as part of the larger savanna complex in this area.</p> <p>Wld : Concur with FMFMD.</p>										
3	A6	2	50	75	aspen (upland)	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : Harvest this stand, cutting all species. This stand should regenerate to aspen. Was approved at the pre-review.</p> <p>Wld : Concur with FMFMD.</p>										
4	Q6	3	88	45	mixed swamp conifer	mature	final harvest	2	natural regeneration	
<p>comnts Fmd : This stand should be harvested. Cut all species; except leave some tamarack seed trees along the edge of the stand. Tamarack is the desired regen, but a mix of T, S, and F is acceptable. After the pre-review the treatment remained the same; except all cedar is to be left.</p> <p>Wld : No cut white cedar. Concur with FMFMD.</p>										
5	U0	65		50	upland brush	nonstocked		0	opening maintenance	
<p>comnts Fmd : At the pre-review it was decided to burn this stand, along with stand 1. This area is to be maintained as an opening complex. If funding is available, wildlife division will roller chop this stand prior to it being burned. This is to help in trying to eliminate the hazel brush.</p> <p>Wld : This stand has bracken fern with blueberries underneath. Potentially hydroax or roller chop any hazel in opening. Stand 12 will be combined with this stand and be treated the same. Prescribe burn with Stand 1. This burn will be one of the top prescribed burns for WLD in YOE 08.</p>										
6	O6	54	86	55	oak	old growth (potential or actual)	final harvest	1	natural regeneration	
<p>comnts Fmd : This stand should be harvested, both the oak and aspen is mature. Cut all species; except red and white pine. This stand should regenerate to a mix of oak and aspen. The oak should stump sprout and mix in with the aspen regen to have a fully stocked stand. If this stand doesn't regenerate successfully to aspen and oak, trench and plant jack pine. This stand is also growing on Grayling sand. The site index species used was pin oak. After the pre-review it was decided to final harvest this stand, leaving scattered clumps of oak. The clumps will vary from 1 to 12 trees, while trying to average around 4 tree's per acre. Leave some bigger clumps near the houses on the edges and along the road. This stand is to be burned with stands 2 and 8 after it is cut. Do not plant. If the stand does not regenerate to oak, we will manage it as part of the Oak-Pine barrens complex in this area. This stand is part of the ERA from comp 109, that is to be managed for Oak- Pine Barrens.</p> <p>Wld : Forester will retain clumps of various sizes (4-12 trees per acre to better mimick natural clumps found in oak savanna). Prescribe burn this stand after harvest. Concur with FMFMD.</p>										

ESCANABA FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 24

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
8	O1	21	2	50	oak	old growth (potential or actual)		0	opening maintenance	
<p>comnts Fmd : This stand was originally part of stand 7, but over the past 15 to 20 years this area has been cut to prevent the spread of oak wilt disease. This stand is primarily an upland brush stand, but there are pockets of A, Mr, and oakstump sprouts mixed in. We need to kill the oak stump sprouts along the edge of the stand to prevent them from spreading the oak wilt disease outside of the containment zone. We should herbicide a 2 to 3 chain swath along the perimeter of the stand. After the stand is herbicided we should trench and plant jack pine. This stand might need to be burned to eliminate competition from the brush. Will have to check with Don to see if it is necessary. This stand is also on Grayling sand. The site index species used was pin oak. After the pre-review it was decided to not herbicide or plant this stand. We will burn this stand, along with stands 2 and 6 after stand 6 is harvested. This stand is part of an ERA. The ERA is a oak-pine barrens complex. If the stand does not regenerate with oak an opening complex is acceptable.</p> <p>Wld : Already a regenerating mixed stand. Prescribe burn. Concur with FMFMD.</p>										
9	A6	9	53	55	aspen (upland)	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : The aspen and oak is over mature in this stand, we should harvest it now while both species have the ability to sprout. Cut all species, except for red and white pine. This stand should be managed for a mix of aspen and oak. But a mix of A, Oak, W, J, and R is acceptable. If regeneration fails jack pine should be planted. This site is also on Grayling sand. After the pre-review it was decided to treat the stand as previously described; except leave scattered wolfy oak tree's for mast throughout the stand. If the stand does not regenerate it is acceptable to have open areas as part of a larger savanna complex. Do not plant this stand if the stand does not regenerate.</p> <p>Wld : Leave a scattering of wolfy oak trees for mast production. Concur with FMFMD.</p>										
15	A6	13	61	50	aspen (upland)	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : This stand is a mix of 4 or 5 different cover types, which are to small to delineate out. They all should be treated the same way. Cut all species; except in areas where there is insufficient aspen leave a variety of seed trees. The primary species for regeneration is aspen, but a mix of A, W, Oak, S, F, Mr, and J is acceptable. There are some species that didn't show up in the volume table that will be cut as well. After the pre-review it was decided to treat this stand as described above; except leave seed tree's of all species present currently in this stand.</p> <p>Wld : Because of the number of cover types found here, leave a variety of seed trees where appropriate (for example, no leave trees in the heavier upland aspen, leave seed trees in the lowland fir, etc.). Please leave some of all species, included those that were not listed. Concur with FMFMD.</p>										
26	A6	11	53	80	aspen (upland)	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : Aspen is mature. Cut all species; except leave the good quality pine. The desired regen is aspen, but a mix of A, W, Mr, and F is acceptable. After the pre-review it was decided to treat this stand as it was described above; except leave all oak, cherry, and pine. Also, try to protect brush.</p> <p>Wld : Leave oak, white pine, blue beech, and black cherry. These trees make up a very small portion of the stand. Concur with FMFMD.</p>										
29	M6	62	86	60	northern hardwood	immature	thinning	1	release	
<p>comnts Fmd : Shakey Creek flows through part of this stand. Buffer the banks of the creek. This stand needs to be thinned to release the better quality stems for sawlog production. Thin this stand by removing some of all species and in all size classes. Also, cut all A, P, and Fb. This treatment was approved at the pre-review.</p> <p>Wld : Leave some pine, all hemlock, and all cedar. Thin clumps of pine, but don't mark the lone white pine. Concur with FMFMD.</p>										
32	F4	8	16	55	spruce-fir (uplands- including upland black spruce)	sparse		0	natural regeneration	
<p>comnts Fmd : This stand was cut in 1990 and has not successfully regenerated. There are some scattered residual trees that were left. Most of the stand is open and dry, with small clumps of P and F regeneration. This stand should be machine scarified and allow the residual seed trees to seed in the site. This stand should regenerate to a mix of F, W, M, A, Ash, and B. Any mix of these species is acceptable. Scarify this stand when stand 33 is done. Approved at the pre-review.</p> <p>Wld : Concur with FMFMD.</p>										
33	M6	16	86	60	northern hardwood	immature	selection	2	natural regeneration	
<p>comnts Fmd : Stand contains decent quality hardwood stems, with an understory of sedge and very little regeneration. This stand is pretty open and has wide spacing of the residual stems in most places. This stand should be opened up leaving 30 to 40 BA of the various species and than have the site machine scarified to expose bare mineral soil to allow the residual trees to seed in. The desired regen is Ms, Mr, and oak. But, a mix of those species along with F and W is acceptable. Remove some of all species and in all size classes. Scarify stand 32 when this stand is done. Approved at the pre-review.</p> <p>Wld : Concur with FMFMD.</p>										

ESCANABA FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 24

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
34	T6	5	85	55	tamarack	mature	seed tree	1	natural regeneration	

comnts Fmd : This is the nicest stand of tamarack I have seen. This stand is mature and needs to be cut. Cut all species leaving only scattered T seed trees. The desired regen is T, but a mix of T, S, and F is acceptable. There are a couple of other species that don't show up in the volume tables that will also be cut. After the pre-review the treatment listed above was approved; except all white pine, ash, and cedar are to be left.

Wld : Leave cedar, white pine, and ash. Any trees that blow over will provide valuable coarse woody debris and windthrows for wildlife. Concur with FMFMD.

Total Acres..... 277

**Proposed Treatments
With Limiting Factors**

Compartment: 24

Entry Year: 2008

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

Compartment 24
 T35N, R28W, Sec. 19, 20, 21
 County: Menominee
 Unit: Escanaba
 YOE: 2008
 Acres: 441 GIS Calculated
 Stand Examiner: Dustin Salter
 Map Revised: 8/22/2006
 Map Phase: Pre-review

Field Map

Legend

-  Miris Corners
-  County Paved Roads
-  County Gravel Roads
-  Poor Dirt Roads
-  Water Features
-  Stand Boundary
-  Biodiversity/Old growth area
-  027 - Opening maintenance/Prescribed burning
-  045 - Natural regeneration/Mechanical, other
-  047 - Natural regeneration/Prescribed burning
-  097 - Improvement/Prescribed burning
-  147 - Final harvest/Natural regeration/Prescribed burning
-  148 - Final harvest/Natural regeneration/Other
-  197 - Final harvest/Improvement/Prescribed burning
-  248 - Seed tree/Natural regeneration/Other
-  458 - Thinning/Release/Other
-  845 - Selection/Natural regeneration/Mechanical, other

