



**ESCANABA FOREST MANAGEMENT UNIT  
COMPARTMENT REVIEW PRESENTATION**

**COMPARTMENT: # 28      ENTRY YEAR: 2009**  
**Compartment Acreage: 717      County: Menominee**

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*Last revised: July 6, 2007*

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

**Legal Description:** T34N R29W Sections 1 and 2

**Management Goals:** This compartment primarily is a mix of aspen, oak, and pine with some lowland conifer and brush stands mixed in. A couple of aspen stands will be final harvested; except some oak and pine will be retained within them. Two small white pine stands will be thinned. This will be done by removing the short lived species and marking the oak and pine to cut. Another poor quality white pine stand will have its basal area reduced down to 30 BA, this is to allow the pine and oak to regenerate. Two oak stands were approved to be harvested, leaving only some pine and oak seed trees. There are two other larger oak stands that were prescribed to be treated; one of the stands we would do group selections in and the other we would lower the BA down to 20. The intention of both of the harvests is to regenerate oak. The oak is mature in this area and is growing on very poor quality soil. If we do not harvest the oak soon we will lose the ability to regenerate it with stump sprouts. These two oak treatments were not agreed to at the pre-review. There are a few known oak wilt epi-centers within this compartment that will be treated as funding becomes available. If any other oak wilt epi-centers are found during this decade they will be treated as necessary.

**Soil and Topography:** The topography is gently rolling with some nearly level areas. Soils include well drained loamy fine sand over loamy sand, sand over sand, and black muck over sand. Prominent soil series include Pemene-Rubicon, Rubicon sand, and Lupton-Tawas.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** This compartment is located on the southern edge of a block of state land that is about 20 miles long and 8 miles wide in the southwestern portion of Menominee County. There is no private ownership within the compartment boundaries. This compartment blocks up with other state land on the North and South sides and with a half a mile block of private ownership on the East side there is more state land to the East. The primary use of this land is for recreational purposes.

**Unique, Natural Features:** None known.

**Archeological, Historical, and Cultural Features:** None known.

**Special Management Designations or Considerations:** None

**Watershed and Fisheries Considerations:** There are no water bodies within the compartment, but the Menominee River is only about a half a mile to the West of the 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 small compartment is almost entirely comprised of upland oak and aspen forest. Several mature aspen stands are proposed for final harvest and regeneration, and a few small white pine stands are proposed for intermediate treatments. A significant management dilemma in this compartment is how to manage the oak stands. Oak forest not only provides mast for wildlife, but also nest cavities, den sites, dead woody debris, and a relatively unique stand composition that often includes shrubs such as witch hazel and maple-leaved viburnum. Forest managers desire to begin regeneration efforts in oak stands that involve large patch cuts (group selection), cutting of thrifty trees for stump sprouting, or reducing the stand canopy closure to a low level to allow light penetration. Wildlife managers share the desire to regenerate oak, but are concerned about the impact to wildlife habitat if these stands do not regenerate as planned. There is also ongoing debate among managers about how to proceed with oak cutting in light of the oak wilt disease mortality which is occurring in this area. An analysis of oak harvest levels has begun to determine the best course of action for oak management, and this discussion may need to continue at the compartment review.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of glacial outwash sand and gravel, postglacial alluvium and end moraine of coarse-textured till and lacustrine (lake) sand and gravel. 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. None of the State land has been previously leased for metallic mineral exploration. Gravel pits are located in the area and there should be potential on the uplands. No economic oil and gas production has been found in the UP.

**Vehicle Access:** The main access into the compartment is by way of the Oak Hill Road, with a number of two track roads branching off of it.

**Survey Needs:** None needed.

**Recreational Facilities and Opportunities:** There are no developed facilities within the compartment. The primary recreational uses are hunting, four wheeling, and snowmobiling.

**Fire Protection:** This area is very well drained and is dry for most of the year. The potential for a fast moving fire is very high. There are no good water sources within the compartment.

**Additional Compartment Information:** A number of oak wilt epi-centers were treated in the fall and winter of 2006-2007. There could be additional epi-centers found in 2007, these will need to be treated as they are found and as money is available.

**\*\*\*\* 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: 28

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	133																										133	
V Bog or Marsh			27																									27
C Cedar				13																								13
G Grass					4																							4
L Lowlnd Brush									27																			27
N Marsh											17																	17
Q Mx Swmp Cnfr												20																20
O Oak														412														412
T Tamarack																					20							20
W White Pine																										44	44	
Total	133		27	13	4				27		17	20		412							20					44	717	

ESCANABA RIVER STATE FOREST

ESCANABA FOREST MGT UNIT

MENOMINEE COUNTY

COMPARTMENT: **28**

*Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS*

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	4778 Cds	Hardwood	3082 Cds
Hardwood	1296 Mbf	Hardwood	318 Mbf
Softwood	1017 Cds	Softwood	58 Cds
Softwood	885 Mbf	Softwood	448 Mbf
Sum TotVol	10157 Cds	Sum CutVol	4672 Cds
<b>Total Cmpt Acres</b>		Acres Proposed For Cut.....	
717		307	

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
3	A6	46	40	70	aspen (upland)	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : This stand should be clearcut; except mark some scattered pine and oak to leave. Most of the pine will be left. Also, all oak less than 5" will be left. The aspen is very poor quality in most places. The age of the aspen also varies quite a bit throughout the stand. This stand will regenerate to a mix of aspen oak, and pine. This stand had heavy Tent Caterpillar defoliation in the late 80's. # After pre-review treat as prescribed, except mark the residual oak to leave. Wildlife will assist.</p> <p>Wld : Concur with FMFMD. Wildlife will assist in marking oak leave trees.</p>										
4	W9	5	96	50	white pine	immature	thinning	1		
<p>comnts Fmd : Decent quality pine stand - mostly white pine. Thin the pine and oak down to 80 BA and remove all aspen, birch, balsam, and maple. # After pre-review treat as prescribed.</p> <p>Wld : Concur with FMFMD. As a reference, use the Within-Stand Retention Guidelines. This document includes targeted retention characteristics that may include; diversity (tree species, vertical, horizontal), mast trees, cavity trees/standing dead/down wood, retention, and additional considerations.</p>										
5	A6	4	53	60	aspen (upland)	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : Clearcut this stand; leaving red and white pine and a few mast producing oaks. Manage this stand for a mix of aspen and oak. Leave all oak less than 5" at DBH. The aspen varies in age quite a bit. # After pre-review treat as prescribed, except mark the oak to leave. Wildlife will assist.</p> <p>Wld : Concur with FMFMD. Wildlife will assist in marking oak leave trees.</p>										
8	O9	148	97	70	oak	mature	selection	1	natural regeneration	
<p>comnts Fmd : Stand was cut in, between 1990 and 1993. All of the species were removed; except for the pine and oak. Some of them were marked for removal, it was a small amount. This stand is nearing maturity some of the areas on the sandy sites are starting to decline. We need to start regenerating the stand before we lose the ability. Since this a large stand I recommend doing a group selection cut over the entire stand. We will cut about half of the acres in 3 to 5 acre blocks. These blocks will be of various size and shapes and will be in no particular pattern. We will red line out each patch and GPS it. The patches will be clearcut; except we will be leaving some oak and pine seed trees. The BA left will be less than 10 sq ft. The patches have to be big enough to allow sunlight in and prevent the crowns from closing in. If the majority of the blocks do not regenerate adequately after 4 years we should scarify any block that doesn't have adequate regen. Scarification should take place in the fall. # After the pre-review no decision was made. I suggested making the clearcut patches two acres in size instead of 3 to 5; still roughly cutting about half of the acreage. And instead of delineating out the individual pockets I would just mark and tally each individual tree. We would be doing a group selection throughout the stand. Wildlife was concerned with the amount of oak wilt we have treated on the forest over the last 4 to 5 years. Don K. was to add up the acreage of oak wilt we have treated.</p> <p>Wld : Discuss at Compartment Review.</p>										
14	W9	6	68	50	white pine	immature	thinning	1		
<p>comnts Fmd : This stand needs to be thinned out. Cut all aspen, jack pine, and maple. Than mark the pine and oak down to 80 BA. Manage this stand in the future for a mix of pine and oak. I am not expecting regeneration. # After pre-review treat as prescribed.</p> <p>Wld : Concur with FMFMD. As a reference, use the Within-Stand Retention Guidelines. This document includes targeted retention characteristics that may include; diversity (tree species, vertical, horizontal), mast trees, cavity trees/standing dead/down wood, retention, and additional considerations.</p>										
19	W9	10	97	60	white pine	mature	shelterwood-seed	1	natural regeneration	
<p>comnts Fmd : The pine is very poor quality within this stand. This stand should be cut on a shelterwood system, managing for a mix of pine and oak. Remove all species; except mark 30 BA of pine and oak to leave. It looks as though there is a pocket of oak wilt on the South end of this stand, so we would not leave any oak here. We will treat this epi-center of oak wilt as funding becomes available. # After pre-review treat as prescribed.</p> <p>Wld : Concur with FMFMD. As a reference, use the Within-Stand Retention Guidelines. This document includes targeted retention characteristics that may include; diversity (tree species, vertical, horizontal), mast trees, cavity trees/standing dead/down wood, retention, and additional considerations.</p>										
20	O6	46	97	60	oak	mature	shelterwood-seed	1	natural regeneration	
<p>comnts Fmd : The oak is mature within this stand, we should cut it now to regenerate the oak before we lose the ability. Cut all species; except leave 20 BA of oak, pine, and red maple. The majority of the pine will be left. After the stand is harvested burn the stand to eliminate the current brush and also expose bare mineral soil. If after 4 years we have not burned this stand scarify it, in the fall. This will knock back some of the brush and also expose mineral soil. If neither of these activities occur or are unsuccessful underplant a mix of red and white pine. # After the pre-review, no decision was made. Wildlife was concerned with the amount of oak wilt we have treated on the forest over the last 4 to 5 years. Don K. was to add up the acreage we have treated and provide that to wildlife. I suggest scarifying the site after it is cut, instead of burning the site. Burning of the site might lead to significant mortality of the residual oak trees.</p> <p>Wld : Discuss at Compartment Review.</p>										

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
<b>23</b>	<b>A6</b>	16	53	60	aspen (upland)	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : Not real high quality aspen, with varying ages throughout the stand. Clearcut the stand, leaving some pine and oak trees for seed and retention. # After the pre-review it was decided to treat the stand as prescribed; except leave all of the oak except around the oak wilt epi-center in stand 19.</p> <p>Wld : Concur with FMFMD. Retain all oaks except around the oak wilt pocket. As a reference, use the Within-Stand Retention Guidelines. This document includes targeted retention characteristics that may include; diversity (tree species, vertical, horizontal), mast trees, cavity trees/standing dead/down wood, retention, and additional considerations.</p>										
<b>25</b>	<b>O5</b>	4	97	60	oak	mature	final harvest	2	natural regeneration	
<p>comnts Fmd : This pocket of oak is mature and it should be harvested to regenerate the oak. Cut all species; except leave the pine and a few oak for seed and retention. Manage this stand for a mix of pine and oak. If this stand has not regenerated after 4 years scarify it, allowing the residual seed trees to seed it in. # After pre-review treat as prescribed.</p> <p>Wld : Concur with FMFMD. As a reference, use the Within-Stand Retention Guidelines. This document includes targeted retention characteristics that may include; diversity (tree species, vertical, horizontal), mast trees, cavity trees/standing dead/down wood, retention, and additional considerations.</p>										
<b>42</b>	<b>O8</b>	22	97	60	oak	two aged	shelterwood-seed	2	natural regeneration	
<p>comnts Fmd : This stand was cut between 1990 and 1993. The majority of the stand was opened up with a residual BA of 20 to 40. But there is a 4 to 6 acre portion of this stand on the East side that has very high BA's and primarily consists of pine. The areas of this stand that have BA's higher than 30 should be lowered down to 30 BA. By opening up the rest of the stand it will allow the pine and oak to regenerate. The open areas of the stand have scattered oak, pine, and aspen regeneration. The areas that have not regenerated from the previous harvest should be scarified when we scarify the adjacent stands. The residual trees will seed in the stand. Scarify in the fall and avoid any advanced regeneration. This stand will be a mix of oak, pine and aspen. # After pre-review treat as prescribed.</p> <p>Wld : Concur with FMFMD.</p>										
<b>Total Acres.....</b>		<b>307</b>								

**ESCANABA FOREST MGT UNIT**

**Proposed Treatments  
With Limiting Factors**

**Compartment: 28**

**Entry Year: 2009**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
6	O8	6	97	60	oak	two aged		0	natural regeneration	

TREATMENT LIMITING FACTORS: Retention of stand for regeneration purposes (ie. shelterwood)

comnts Fmd : Thi stand was cut between 1990 and 93. All but the oak and pine were cut. Now there is only scattered regen with some patches of brush. This stand should be scarified in the fall, to avoid damaging the oak to prevent oak wilt from spreading. The residual trees will naturally seed in the site. Avoid existing regen when scarifying. This stand stand should fill in with oak and pine after scarifying.

Wld : Concur with FMFMD.

43	O4	11	97	75	oak	two aged		0	natural regeneration	
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TREATMENT LIMITING FACTORS: Retention of stand for regeneration purposes (ie. shelterwood)

comnts Fmd : This stand was cut between 1990 and 1993. This stand has an overstory of oak and pine with some oak and aspen regen in the understory. The regen is spotty. This stand should be scarified in the fall, allowing the residual trees to seed in the stand. Avoid existing regeneration.



Wld : Concur with FMFMD.

**Total Acres..... 17**

Compartment 28  
 T34N, R29W, Sec. 1, 2  
 County: Menominee  
 Unit: Escanaba  
 YOY: 2009  
 Acres: 717 GIS Calculated  
 Stand Examiner: Dustin Salter  
 Map Revised: 7/17/2007  
 Map Phase: Pre-review

# Field Map

**Legend**

-  Miris Corners
-  County Gravel Roads
-  Gravel Roads
-  Poor Dirt Roads
-  Berms
-  Stand Boundary
-  Biodiversity/Old Growth Area
-  046 - Natural Regeneration/Mechanical, Other
-  148 - Final Harvest/Natural Regeneration
-  346 - Shelterwood-seed/Natural Regeneration/Mechanical, Other
-  347 - Shelterwood-seed/Natural Regeneration/Prescribed Burning
-  348 - Shelterwood-seed/Natural Regeneration
-  400 - Thinning
-  848 - Selection/Natural Regeneration

