



**SAULT FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 117 ENTRY YEAR: 2009

Compartment Acreage: 1914 County: Mackinac

Revision Date: 10/1/07

Stand Examiner: Steve Crigier

Legal Description: T42N-R6W Sections 3, 4 & 5; Moran Township

RMU (if applicable):

Management Goals: The overall goals for the management of this compartment are to improve timber quality, wildlife habitat and to increase the biodiversity. By performing selection harvests within the northern hardwood stands we aim to improve the timber quality and increase species diversity. The prescribed red pine thinnings will maintain health and quality in our pine stands by thinning out the poor quality stems. The clearcuts that are prescribed are to increase age class diversity in the aspen/birch stands, which will improve habitat for various edge dependent species. The compartment has a number of grassy openings that support a decent blueberry crop. Adjacent harvests will help maintain these openings and the berry crop for various wildlife species.

Soil and Topography: The land is nearly level on outwash lake plains with inclusions of somewhat poorly drained soils. Wallace sand make up the majority of the soil with traces of Spot-Finch soils, Markey & Carbondale muck, Histosols and Aquents in the lowlands.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Compartment 117 is located two and a half mile northwest of the Village of Brevort. The compartment is surrounded by state ownership with some private property a half a mile to the south. The landscape is mostly wooded and is managed for timber production and for various wildlife habitats

Unique, Natural Features (include only non-site specific and non-sensitive information): The compartment contains a couple of fens that support unique aquatic wildlife.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): None found.

Special Management Designations or Considerations: The Little Brevort River will need to be buffered from timber sale activities to avoid soil erosion and sedimentation.

Watershed and Fisheries Considerations: The Little Brevoort River is found in this compartment and supports a fish community of brook trout, pearl dace, northern redbelly dace, Iowa darter, brook stickleback and sculpin spp. The headwaters area of the Cut River is also found in this compartment. The Cut River supports brook trout and also is used by other migratory fish (suckers, steelhead, salmon, etc.) from Lake Michigan. Both waterbodies provide good habitat for cold-water trout communities.

Wildlife Habitat Considerations: Through the west side of the compartment a stream transects from north to south with mostly lowland coniferous habitat within the adjacent terrestrial habitat. This habitat provides areas for foraging, dispersal, breeding, and hibernacula for salamander, frog, toad, snake and turtle species. Within the northeast portion of the compartment is additional wetland habitat that is designated as an ecological reference area. Terrestrial reserve areas or core habitat zones surrounding streams, ponds, and ephemeral wetlands offer protection for reptile and amphibian populations. Interruption of migration activity to breeding areas is one consequence of operation of equipment within this core habitat. Additionally, decreasing forest canopy closure in adjacent terrestrial habitat causes changes in microhabitat and soil temperature which poses serious threats to many amphibians. These species contribute to the prey base for many reptiles, birds, and mammals, thus this habitat is an important component in the food web and is critical to maintaining a diverse community of species. Considering that one of our management goals is the conservation of biological diversity, we must incorporate this information into our management decisions, and by doing so assure that the variety and abundance of all species continues on in a healthy and productive state.

Hemlock plantings will increase forest structural diversity and benefit numerous species. Hemlocks are long-lived and tend to supply many foraging and cavity opportunities for woodpeckers, small mammals, and forest carnivores. Mature hemlock inclusions are also important to ruffed grouse as high quality fall and winter roosting locations.

Several openings within the compartment provide opportunities for species such as sandhill cranes. Other avian species observed within the compartment were broad-winged hawk, ovenbird, white-throated sparrow, black-throated blue warbler, red-eyed vireo, ruffed grouse hen and chicks, cedar waxwing, northern flicker, blue jay, yellow-rumped warbler.

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 subcrops below the glacial drift. The Engadine is quarried for stone/limestone in the area. Gravel pits are not located in the area and potential appears to be limited. There is no current economic oil and gas production in the UP.

Vehicle Access: The compartment has good vehicle access through out most of the compartment. The Carp River Truck Trail, a decent gravel road, provides the access along the east and the Cut River Road provides access on the west side of the compartment. The Jackson Tr., a poor quality road, is the main access to the northern part of the compartment and the Goodereau Tr. Provides access to the southern part of the compartment.

Survey Needs: None

Recreational Facilities and Opportunities: The area is used frequently by ORV recreationalist with the Carp River Truck trail being a snowmobile in the winter and the Goodereau Trail leading to the Brevort ORV trailhead. The area is also used by hunters and fishermen with the Brevort and Carp Rivers in the area.

Fire Protection: The compartment contains many grassy fuel types and also has a fair amount of slash from recent timber harvests. There is nearby water sources with the Little Brevort River and the fens. Hendricks Township Fire Hall is 5 miles from the compartment and there is decent vehicle access.

Additional Compartment Information:

Cover Type details, Proposed Treatments, and Stand listings are listed in the attached reports:

- ◆ **Cover Type by Age Class**
- ◆ **Proposed Treatments – No Limiting Factors**
- ◆ **Proposed Treatments – With Limiting Factors**
- ◆ **Stand Listing – Forested**
- ◆ **Stand Listing – Non Forested**
- ◆ **Special Conservation Area (SCA) Details**

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**
- ◆ **SCA – Special Conservation Areas**



Stage 1 Acres Summary By Level 3 Cover Type By Age

Compartment: 45117

Date: 10/3/2007

	0	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	>89	Uneven Age	Grand Total
Aspen Types	0	37.9	52.3	59.6	0	0	0	0	0	0	0	0	149.8
Emergent Wetland	9.3	0	0	0	0	0	0	0	0	0	0	0	9.3
Herbaceous Openland	384.3	0	0	0	0	0	0	0	0	0	0	0	384.3
Low-Density Trees	77	0	0	0	0	0	0	0	0	0	0	0	77
Lowland Coniferous Forest	0	15.2	0	0	1.7	0	0	0.9	0	0	97.1	0	114.9
Lowland Deciduous Forest	0	0	0	0	0	0	13.9	0	0	0	0	0	13.9
Lowland Shrub	90.5	0	0	0	0	0	0	0	0	0	0	0	90.5
Mixed Upland Conifers	0	0	0	0	43.1	8	0	50.1	18.7	3.3	0	0	123.2
Mixed Upland Deciduous	0	0	0	0	3.9	23.8	0	0	58.3	0	0	0	86
Natural Pines	0	0	0	0	0	50.5	0	0	0	31.7	25.1	0	107.3
Northern Hardwood	0	12.7	0	0	0	0	0	6.2	38	165	0	0	221.9
Other Upland Conifers	0	0	0	0	0	5.5	0	16	5.4	0	0	0	26.9
Planted Pines	0	0	0	0	0	177	0	115.8	0	0	0	0	292.8
Upland Mixed Forest	0	0	0	14.4	0	64.4	0	79.9	52.6	0	0	0	211.3
Upland Shrub	5.3	0	0	0	0	0	0	0	0	0	0	0	5.3
Grand Total	566.4	65.8	52.3	74	48.7	329.2	13.9	268.9	173	200	122.2	0	1914.4

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

S t a n d	Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Pg. 1
14	45117014-Cut	50.9	4319 - Mixed Upland Forest	6	76	0	Shelter Wood with Reserves	Regeneration	Natural White Pine, Mixed Deciduous	
<u>Rev</u> <u>Cmnt:</u>	Stand is heavy to white pine in the southern end and becomes more of a birch/redmaple stand to the north.									
<u>Rev</u> <u>Spec:</u>	Cut everything but the white pine and hemlock. Buffer river 150'.									
<u>Next</u> <u>Steps:</u>	Regen check in 4 yrs after harvest. Acceptable regen is white pine, balsam fir, white spruce, hemlock, white birch, red maple.									
17	45117017-Cut	15.2	429 - Mixed Upland Conifers	6	64	0	Shelterwood	Regeneration	Natural White Pine, Mixed Deciduous	
<u>Rev</u> <u>Cmnt:</u>										
<u>Rev</u> <u>Spec:</u>	Shelterwood stand, cut everything but white pine, set up as a chip job for scarification of seed bed. Buffer wetland to the south 30'. Mark 6-10 trees to fell after harvest.									
<u>Next</u> <u>Steps:</u>	Regen check 4 yrs after harvest. Acceptable regen is white pine, balsam fir, white spruce, white birch, aspen, red maple, red pine.									
19	45117019-Cut	18.1	4112 - Maple, Beech, Cherry Association	6	75	0	Single Tree Selection	Regeneration	Maple, Beech, Cherry Association	
<u>Rev</u> <u>Cmnt:</u>	Stand becomes heavier to birch in east.									
<u>Rev</u> <u>Spec:</u>	Thin stand to 70-80sqft/ac. Mark for best tree in place. Maintain birch component.									
<u>Next</u> <u>Steps:</u>	regen check 4 yrs after harvest. Acceptable regen is hard maple, red maple, beech, yellow birch, cherry, hemlock, balsam fir, white birch.									
21	45117021-Cut	21.4	42110 - Planted Red Pine	6	44	0	Crown Thinning	Intermediate Cut	Planted Red Pine	
<u>Rev</u> <u>Cmnt:</u>	Trees have room to grow for now. Can probably set up in 2012 with adjacent stand 83 of compartment 119 (2011YOE) if that stand is ready.									
<u>Rev</u> <u>Spec:</u>	Thin down to 120sqft/ac									
<u>Next</u> <u>Steps:</u>	none.									
25	45117025-Cut	11.4	4311 - Pine, Aspen Mix	9	61	0	Shelter Wood with Reserves	Regeneration	Natural White Pine, Mixed Deciduous	
<u>Rev</u> <u>Cmnt:</u>	Stand is a bit heavier to aspen in the south end of the stand.									
<u>Rev</u> <u>Spec:</u>	Shelterwood stand, cut everything but the white pine. Set up as a chip job for scarification of seed bed. Buffer wetland 30'. Mark 6-10 trees to fell after harvest for dead wood. No cutting or skidding from 4/1 to 6/30 for amphibious species.									
<u>Next</u> <u>Steps:</u>	Regen check in 4 yrs after harvest. Accetable regen is white pine, balsam fir, white birch, aspen, red maple.									
28	45117028-Cut	10.7	42110 - Planted Red Pine	6	44	0	Crown Thinning	Intermediate Cut	Planted Red Pine	
<u>Rev</u> <u>Cmnt:</u>	Thin when stand 20 of compartment 118 is ready. Take a look for entry yr 2011. Right now BA is around 150 and trees have room to grow.									
<u>Rev</u> <u>Spec:</u>	Thin to 120sqft/ac.									
<u>Next</u> <u>Steps:</u>										

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

S t a n d	Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Pg. 2
35	45117035-Cut	72.3	42110 - Planted Red Pine	6	43	0	Crown Thinning	Intermediate Cut	Planted Red Pine	
<u>Rev</u> <u>Cmnt:</u>	Stocking is a more spotty in the west 40.									
<u>Rev</u> <u>Spec:</u>	Thin stand down to 120sqft/ac. Leave some cherry and white pine if found.									
<u>Next</u> <u>Steps:</u>	none.									
46	45117046-Cut	2.0	6129 - Mixed Coniferous Lowland Forest	6	110	0	Clearcut with Reserves	Regeneration	Mixed Coniferous Lowland Forest	
<u>Rev</u> <u>Cmnt:</u>	Sale is under contract 'Dead End Strips' 128-04-01									
<u>Rev</u> <u>Spec:</u>	Clearcut, leave deciduous < 2" and conifers <4"									
<u>Next</u> <u>Steps:</u>	regen check 4 yrs after harvest. Acceptable regen is hemlock, b. spruce, w. spruce, hemlock, white birch, red maple, cedar, tamarack, white pine, aspen, BAM									
51	45117051-Cut	23.8	429 - Mixed Upland Conifers	6	65	0	Clearcut with Reserves	Regeneration	Mixed Upland Forest	
<u>Rev</u> <u>Cmnt:</u>	Stand has a bit more conifer component than stand 55. Lines will be difficult to run try to stand where the conifer is.									
<u>Rev</u> <u>Spec:</u>	Clearcut but leave all white pine.									
<u>Next</u> <u>Steps:</u>	Regen check 4 yrs after harvest. Acceptable regen is paper birch, aspen, red maple, hard maple, balsam fir, aspen, white spruce, white pine.									
53	45117053-Cut	0.9	6129 - Mixed Coniferous Lowland Forest	5	69	0	Clearcut with Reserves	Regeneration	Mixed Coniferous Lowland Forest	
<u>Rev</u> <u>Cmnt:</u>	Stand is under contract 'Dead End Strips' 45-128-04-01									
<u>Rev</u> <u>Spec:</u>	Clearcut stand, leave deciduous trees <2" and conifers<4".									
<u>Next</u> <u>Steps:</u>	Regen check 4yrs after harvest. Acceptable regen is white birch, red maple, aspen, cherry, balsam fir, black spruce, white spruce, white pine, cedar, hemlock, tamarack.									
57	45117057-Cut	3.3	429 - Mixed Upland Conifers	6	87	0	Clearcut with Reserves	Regeneration	Mixed Upland Forest	
<u>Rev</u> <u>Cmnt:</u>	Stand is under contract 'Dead End Strips' 45-128-04-01									
<u>Rev</u> <u>Spec:</u>	clearcut, leave deciduous trees<2" and conifers<4"									
<u>Next</u> <u>Steps:</u>	Regen check 4 yrs after harvest. Acceptable regen is, red maple, aspen, balsam fir, white spruce, white pine, hemlock, balsam fir.									
59	45117059-Cut	24.0	4112 - Maple, Beech, Cherry Association	6	82	0	Systematic Thinning	Intermediate Cut	Maple, Beech, Cherry Association	
<u>Rev</u> <u>Cmnt:</u>	Stand is part of a larger hardwood stand that has had sporadic harvesting in. Run lines where the timber is dense. Stand to the east has had some cutting in the last 20-30yrs the west side of the stand is an opening filling in.									
<u>Rev</u> <u>Spec:</u>	Thin stand down to 70sqft/ac. Manage for best tree in place.									
<u>Next</u> <u>Steps:</u>	none.									

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

S t a n d	Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Pg. 3
60	45117060-Cut	65.1	42110 - Planted Red Pine	6	69	0	Systematic Thinning	Intermediate Cut	Planted Red Pine	
<u>Rev</u>	Stand is under contract 'Bad Row Pine' 45-105-04-01									
<u>Cmnt:</u>										
<u>Rev</u>	Thin JP out of stand.									
<u>Spec:</u>										
<u>Next</u>	nothing									
<u>Steps:</u>										
64	45117064-Cut	16.6	4112 - Maple, Beech, Cherry Association	6	82	0	Single Tree Selection	Regeneration	Maple, Beech, Cherry Association	
<u>Rev</u>										
<u>Cmnt:</u>	Stand contains many over mature red maple and some scattered white pine									
<u>Rev</u>	Thin stand down to 80sqft/ac. Maintain white pine and cherry component. Manage for best tree in place.									
<u>Spec:</u>										
<u>Next</u>	Regen check in 4 yrs after harvest. Acceptable regen is red maple, hard maple, balsam fir, cherry, white pine, white birch. Underplant hemlock after									
<u>Steps:</u>	harvest.									
69	45117069-Cut	7.0	42110 - Planted Red Pine	9	68	0	Clearcut with Reserves	Cover Type Conversion	Maple, Beech, Cherry Association	
<u>Rev</u>	Nice redpine stand with thick hardwood regen in understory.									
<u>Cmnt:</u>										
<u>Rev</u>	Clearcut stand but leave 10sqft/ac of super canopy redpine and let stand convert back to hardwood.									
<u>Spec:</u>										
<u>Next</u>	regen survey in 4 years after harvest. Acceptable regen is red maple, hard maple, cherry, balsam fir, white pine, beech, aspen, paper birch, yellow									
<u>Steps:</u>	birch. Plant hemlock.									
76	45117076-Cut	19.9	4112 - Maple, Beech, Cherry Association	6	73	0	Single Tree Selection	Regeneration	Maple, Beech, Cherry Association	
<u>Rev</u>										
<u>Cmnt:</u>										
<u>Rev</u>	Thin stand down to 80sqft/ac. Maintain white pine and cherry component of Stand.									
<u>Spec:</u>										
<u>Next</u>	Regen check in 4 years after harvest. Acceptable regen is R. maple, S. maple, white birch, white pine, cherry, beech and balsam fir. Underplant									
<u>Steps:</u>	hemlock after harvest.									
38	NF_45117038- Spray	82.7	4319 - Mixed Upland Forest	0	23	0	Pesticide	Release		
<u>Rev</u>	FTP # 44-514. Stand currently doesn't need release but might need it in the next 10yrs. Monitor site. Also, monitor for sawfly.									
<u>Cmnt:</u>										
<u>Rev</u>	areial application									
<u>Spec:</u>										
<u>Next</u>	monitor									
<u>Steps:</u>										
42	NF_45117042- Spray	199.0	Unspecified	0	0	0	Pesticide	Release		
<u>Rev</u>	FTP # 44-509. Spray for release if TMS recommends it also monitor for sawfly.									
<u>Cmnt:</u>										
<u>Rev</u>	Aerial application									
<u>Spec:</u>										
<u>Next</u>	monitor affectiveness of application.									
<u>Steps:</u>										

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

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Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Pg. 4
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Total Treatment
Acreage Proposed: 644.2

**PROPOSED TREATMENTS
WITH LIMITING FACTORS**

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Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Pg. 1
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Limiting Factor and Comment:

Rev Cmnt:

No Stands with Limiting Factors

Rev Spec:


Next Steps:

Total Treatment
Acreage Proposed: 0

Compartment 117
 T42N, R06W, Sec. 3-5
 County: Mackinac
 Unit: Sault Ste Marie
 YOE: 2009
 Acres: 1,914 GIS Calculated
 Stand Examiner: Steven Crigier
 Map Revised: 9/12/2007
 Map Phase: Pre-review

Field Map

Stand # **23** Stocking Density
(A)(412)0 - **7**
 OI Level 3
 Code Level 4
 Cover Type Code

5 4 3
 N


Legend

- ◆ RLS Corners
 - Miris Corners
 - Paved Road
 - Public Gravel Road
 - - - Poor Dirt Road
 - - - Closed Road
 - Intermittent Stream/Drain
 - Stream
 - Stands
 - ▨ Pesticide
 - ▧ Shelterwood
 - ▩ Systematic Thinning
 - Crown Thinning
 - Shelter Wood with Reserves
 - ▬ Clearcut with Reserves
 - ▭ Single Tree Selection
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 429 - Mixed Upland Conifers
 - 430 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- Level 3
- 310 - Herbaceous Openland
 - 320 - Upland Shrub
 - 330 - Low-Density Trees
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland

