



**NEWBERRY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 7 ENTRY YEAR: 2009

Compartment Acreage: 1873 County: Luce

Revision Date: 11/26/07

Stand Examiner: Jason Tokar

Legal Description: T49N R12W Sections 23, 26, 27, 34 & 35

RMU (if applicable):

Management Goals: Timber management, wildlife habitat, and recreation are the main uses of the compartment. The overriding goal is to maintain or improve the forest health, productivity and diversity of the area to promote and enhance these uses. Treatments prescribed will help ensure the sustainability of the forest resource and continue to enhance the quality of the wildlife habitat. Timber management (jack pine, red pine white pine and northern hardwoods) will continue with the current sustainable level of management, promoting an array of both age class and structural diversity in the cover types. All jack pine stands will be scarified for natural regeneration and followed by planting if necessary. Aspen management will be increased through the prescribed treatments to help add to the overall species diversity of the area.

Soil and Topography: The main soil type of the compartment is Rubicon sand, an outwash sand found throughout most of the compartment. The northern portion of the compartment has Rubicon sand with an organic surface. A lesser component of Wallace sand also occurs in the southern and western edges of the compartment. Cover types found on the Rubicon sands are overwhelmingly red pine, white pine, and jack pine. The Wallace sand supports mainly a northern hardwoods cover type. The overall topography of the compartment is level to slightly rolling.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is comprised of one large contiguous block of State land and one small parcel of State land surrounded by The Forestland Group (private). State land borders the compartment to the east and north, while The Forestland Group lands border the compartment on the west and south. Development in and around the compartment is low due to the large amount of State land and large "corporate" tracts (TFG) in the vicinity. A few small camps are located within the area around the compartment. The main types of land use in the area are hunting and ORV and snowmobile riding.

Unique, Natural Features (include only non-site specific and non-sensitive information): MNFI doesn't list any occurrences within the compartment. Potential is there for a variety of flora and fauna including red shouldered hawk, eagle, osprey, moose and wolf.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): The Bureau of History does not list any historical features within the compartment.

Special Management Designations or Considerations: The Two Hearted River Natural River Zone is found within the southern reaches of the compartment. This is designated as an HCVA. No management activity is prescribed within the Natural River Zone.

Watershed and Fisheries Considerations: Fisheries Values

None. Nearby, however, Tank Lake is stocked with splake and Pratt Lake is stocked with rainbow trout. Both are good fishing lakes; Pratt contains rainbows longer than 20”.

Wildlife Habitat Considerations: Compartment 7 lies in the far northern portion of Luce county and is in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. The vegetation is largely comprised of red and jack pine with some white pine, hardwood, and aspen stands scattered throughout the compartment. Not suprisingly, aspen and hardwood stands have greater diversity than pine stands in the compartment. Overall, pre-settlement vegetation patterns appear to have been similar to the current landscape of this compartment.

In a predominantly pine forested ecosystem, maintaining a variety of age and size classes and maintaining as much structural diversity as possible in managed stands will be important to achieving wildlife objectives. For example, retaining soft and hard mast producing species and red and white pine in jack pine final harvests will provide food sources, nest and den trees, and improve stand diversity. Conifer components of hardwood stands are commonly retained during harvest to increase stand diversity, provide nesting, denning and forage sites and cover. Wildlife species potentially using this compartment include white-tailed deer, black bear, fisher, marten, snowshoe hare, gray wolves, and coyote.

Mineral Resource and Development Concerns and/or Restrictions: Sections 23, 26, 27, 34 & 35, T49N-R12W, Luce County

Surface sediments consist of lacustrine (lake) sand and gravel and peat and muck. There is insufficient data to determine the glacial drift thickness. The Cambrian Trempealeau Formation and Munising Group subcrop below the glacial drift. The Trempealeau could be used for stone and the Munising has been used as a building stone in the past. Gravel pits are not located in the area, but there may be some potential. There is no economic oil and gas production in the UP.

Vehicle Access: The Compartment is approximately 30 miles northwest of Newberry. There is substantial vehicle access to the compartment. County Road 416 runs through the southern portion and up along the west side of the compartment. Several woods roads (two tracks) and fire lanes transect the compartment.

Survey Needs: For management activities to occur, some verification of private lines needs to be done. The property lines between the State Land and Heartwood Forestland Fund IV (TFG) lands have been run by private individuals and appear to be accurate. Verification of these line locations in Sections 27 and 35 for proper location is needed.

Recreational Facilities and Opportunities: Recreational facilities within the compartment include the Grand Marais Snowmobile Trail and the Pine Ridge ORV Trail. Other recreational opportunities include hunting, hiking and wildlife viewing. There are a few hunting camps on private lands adjacent to the property.

Fire Protection: Large fire runs are possible with some continuous pine stands. Hardwood stands around the perimeter of the north, west and south sides could slow fire spread, reducing the fire spread to private lands. Road access through the compartment is fair providing some opportunities for fire lines if needed.

Additional Compartment Information: The State land south of County Road 416 within Section 35, S1/2NW was moved from this compartment and added to Compartment 8. The county road provides a better distinguishable boundary than the section line.

- **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

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 7

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									20	62									82
Grass	26																		26
Hemlock																		47	47
Jack Pine		42							268										310
Mx Swmp Cnfr									34										34
Red Pine									315										315
Spruce Fir									29	13									42
Upland Brush	28																		28
Upland Hdwds						12												503	515
White Pine							157		61									256	474
Total	54	42				12	157		727	75								806	1873

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

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 7

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	82																										82
G Grass					26																						26
H Hemlock						47																					47
J Jack Pine							310																				310
Q Mx Swmp Cnfr												34															34
R Red Pine																315											315
F Spruce Fir																			42								42
U Upland Brush																								28			28
M Upland Hdwds																								515			515
W White Pine																										474	474
Total	82				26	47	310					34				315			42				28	515		474	1873

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 7

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	12239 Cds	Hardwood	3391 Cds
Hardwood	370 Mbf	Softwood	7435 Cds
Softwood	23810 Cds	Softwood	199 Mbf
Softwood	1464 Mbf	Sum CutVol	11224 Cds
Sum TotVol	39717 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	431
1873			

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDf Status
8	J6	67	69	45	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : Mature jack pine stand. Tall and fairly large diameter jack pine. Pockets of white pine, mainly in the northern portion of the stand. Edges have more of a mix of species. Also pockets of red pine (NE and SW). Scattered white birch. Main stand is mature jack pine. Stand is prescribed for treatment. Clearcut with reserves. Leave pockets where white pine and red pine BA is higher for retention. Mark through these areas of white pine and red pine pockets for maneuverability and to open up for regeneration. Reduce BA to 50 sq ft. Harvest will be followed by scarification for nature jack pine regeneration. MO of jack pine, will get some red pine and white pine regeneration also.										
Wld : leave white birch, and spruce unless needed for maneuverability. Leave red and white pine scattered in the stand unless for maneuverability. Can mark pockets of high BA red and white pine down to no less than 50BA.										
11	A6	62	86	50	aspen (upland)	mature	final harvest	1		
comnts Fmd : Old, overmature aspen with large natural white pine and red pine. Smaller diameter maple, white birch and balsam. Much of the aspen is 12 inches or larger. Understory of F2/W2 10-20 ft. Good mix of species. Understory has white pine, balsam, maple, spruce, red pine and aspen. White pine BA is high due to large diameters. Prescribe for treatment. Clearcut with reserves. Retain most of the large white pine and red pine, all of the hemlock. Some pine will need to be marked in areas to reduce the BA and provide for better regeneration.										
Wld : leave all hemlock in the stand. Leave a component of birch and retain most of the large white and red pine, an mark some in areas to improve regeneration.										
19	W6	32		45	white pine	unevenaged	shelterwood-seed	2		
comnts Fmd : Mixed pine stand of white pine and red pine. Component of aspen, white birch and jack pine. Pockets of smaller open grown white pine with more regeneration. All size classes of white pine. Red pine is mostly 12-14 inches in diameter. Low quality white birch and aspen. Some top dieback in the white pine. Prescribe stand for treatment. Treat with a shelterwood harvest to promote regeneration of white pine and red pine. Reduce BA to an average of 50-60 sq ft. MO of white pine. Secondary MO of white pine, red pine and aspen mix										
Wld : leave some aspen and birch. Leave some large wolfy pine.										
22	M6	93		54	northern hardwood	unevenaged	selection	1		
comnts Fmd : Red maple stand with a component of hard maple and yellow birch. Good component of white spruce, hemlock and white pine. More conifers along the east stand edge and southern portion of the stand. Some dieback and mortality in red maple. Super canopy white pine throughout. Pockets of open overstory with advanced regeneration. Good maple in the understory throughout the stand. Prescribe stand for treatment. Selection harvest. In areas of lower quality, reduce BA to 60-70 sq ft. Where quality is better mark to 70-80 BA. In areas of conifers, mark some white pine and white spruce for harvest, but only in areas with high conifer BA (east and south). Management objective of northern hardwoods.										
Wld : Stand has good diversity. Plan on leave trees being representative of stand diversity. Leave all hemlock and super canopy white pine. Can mark some white pine and spruce in areas of higher conifer BA, but don't reduce by more than half.										
31	A6	20	74	56	aspen (upland)	mature	final harvest	2		
comnts Fmd : Very mixed stand. Mature aspen with red pine, white pine, jack pine and some hardwoods and white birch. Aspen is mature and large diameter. Red pine is mainly 12-14 nch, white pine is either very large diameter or small suppressed trees, jack pine is mature. Low quality maple and scattered clumps of white birch. Lots of small 4-8 inch dbh white pine throughout. Prescribe stand for treatment. Clearcut with reserves to manage for aspen. Remove aspen, jack pine and hardwoods. Retain white birch clumps, and a component of red pine and white pine (at least 10 BA of each). Results from adjacent harvests in similar stands show very good aspen regeneration along with some red pine and white pine regeneration. MO of aspen. Secondary MO of aspen and pine mix.										
Wld : leave the white birch and large diameter white pine. Stay out of heavy pine pockets										
34	J6	99	69	56	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : Mature jack pine stand. Mortality of jack pine throughout. Some pockets of thicker BA of red pine (few). Good component of white pine - patchy. Scattered aspen - very low quality. Large diameter, tall jack pine. Stand is prescribed for treatment. Clearcut with reserves. Harvest to be followed by scarification. MO of jack pine. Some areas of red pine and/or white pine will need to be marked where BA of red and white pine is greater than 30 sq ft. to promote better regeneration. Leave patches for retention.										
Wld : leave red and white pine in the stand where scatered. Can mark red and white pine pockets down to 30 BA where needed.										
35	R6	21	69	48	red pine	immature	shelterwood-seed	2		
comnts Fmd : Stand was thinned as sale #35-99-01. Completed 12/2000. Pockets of red pine regeneration 6 inches to 1 ft in patches. Open area in the middle of the stand is full of red pine and white pine regeneration. Stand is prescribed for treatment Need to reduce the BA in order to facilitate better regeneration of red pine and white pine. Treat stand with a shelterwood cut to reduce the BA to 60-70 sq ft. Maintain a white pine component in the stand. MO of natural red pine and white pine regeneration.										
Wld : leave spruce, fir and white pine unless needed for maneuverability										

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDf Status
53	M6	37		53	northern hardwood	unevenaged	selection	1		
<p>comnts Fmd : Mainly a pole size red maple stand. Pockets of larger red maple with hemlock and large beech (M9 pockets). Component of yellow birch and black cherry in the stand. Much of the beech is dying out. North end of the stand transitions to more of a hardwoods stand with a higher component of hemlock. Stand is in need of treatment. Prescribed for a selection harvest. Good component of maple understory to release and open up the canopy to promote more regeneration. Residual BA to average 70 sq ft. Retain hemlock, some may be marked in the northern portion of the stand where BA is high. Supercanopy white pine to be retained. Best quality is in the pole size red maple. MO of northern hardwoods. Old abandoned road entering stand in the SE corner can be used for sale access.</p> <p>Wld : leave a component of yellow birch and cherry, mixed diameters. Retain hemlock in the stand unless harvest improves hemlock regeneration in areas where stand is primarily hemlock. Leave super canopy white pine in the stand.</p>										
Total Acres.....		431								

**Proposed Treatments
With Limiting Factors**

Compartment: 7

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..... **o**



Field Map

Compartment 7
 T49N, R12W, Sec. 22, 23, 26, 27, 34, 35
 County: Luce
 Unit: Newberry
 YOE: 2009
 Acres: 1,873 GIS Calculated
 Stand Examiner: Jason Tokar
 Map Revised: 12/04/2007
 Map Phase: Pre-Review



22	23
27	26
34	35



N

Legend

-  Miris Corners
-  Gravel Roads
-  Poor Dirt Roads
-  Trails
-  Closed Roads
-  Water Features
-  Camps
-  Berms
-  ORV Trails
-  Snowmobile Trails
-  Stand Boundary
-  Special Conservation Areas
-  100 - Final Harvest
-  145 - Final Harvest/Natural Regeneration/Mechanica, other
-  300 - Shelterwood-seed
-  800 - Selection

