



**NEWBERRY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 15 ENTRY YEAR: 2009

Compartment Acreage: 3177 County: Luce

Revision Date: 8/2/07

Stand Examiner: Ed Rice

Legal Description: T49N R11W sections 27 – 33 T48N R11W sections 5, 6

RMU (if applicable):

Management Goals: Promote multiple aged and diversified tree species where possible to reduce forest pest impacts and improve conditions for wildlife species. Retain/enhance the quality of recreational uses of the area. Provide for consistent, sustainable wood fiber production over the long term.

Soil and Topography: The compartment is mainly underlain with Rubicon sands. The southern sections transition to muck soils with adjacent ridges of Rousseau – Markey soils. The terrain is largely flat, with the southern sections having flat, seasonally ponded areas with short, steep ridge slopes.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

For the most part, contiguous state ownership is adjacent to the compartment. Private, non industrial ownerships border the compartment in the southern sections. Deer and bear hunting occur within the compartment with heavy recreational ORV use along the trails and interior forest roads. Intensive timber management has occurred in the past and is ongoing.

Unique, Natural Features (include only non-site specific and non-sensitive information):

North Branch Lakes White Pine dry northern mesic forest

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

Special Management Designations or Considerations: Southern sections are within the Two Hearted Natural River corridor and are affected by the natural river plan.

Watershed and Fisheries Considerations: Fisheries Values

Marginal. No manageable waters exist within this compartment. The North Branch Two-Hearted River, however, just south of this compartment is classified Type 1 trout, with an excellent natural trout population. We have documented lots of natural steelhead reproduction in the main branch, and habitat is good in the North Branch, so we assume the same for it. Any additional sand bedload will reduce successful fish spawning far into the future.

Wildlife Habitat Considerations: Compartment 15 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 primarily jack, red and white pine, with slightly more diversity in the southern portion of the compartment. Diversity of tree species in pine stands is relatively low and will be retained during harvest. 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 and species diversity as possible in managed stands will be important to achieving wildlife objectives. For example, retaining soft and hard mast producing species where they occur and red and white pine in jack pine final harvests will provide food sources, nest and den trees, and improve stand diversity. White-tailed deer, black bear, spruce grouse, otter, mink, gray wolves, coyote and fisher are noteworthy wildlife species using this compartment.

Mineral Resource and Development Concerns and/or Restrictions: Sections 27 – 33, T49N-R11W, Luce County

Surface sediments consist of lacustrine (lake) sand and gravel. 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: Good access is present in the north $\frac{3}{4}$ of the compartment. Firelane roads are along the section lines and old roads exist from previous timber management. The far southern area of the compartment has very limited to no vehicle access due to no roads and expansive swamp.

Survey Needs: None for timber management

Recreational Facilities and Opportunities: ORV and snowmobile trails

Fire Protection: Large fire runs are possible in the continuous pine stands in northern portion. Intermixed private property in the southern portion could be at risk to large fires. Modified suppression tactics may need to be considered in the Two Hearted River Area. Road access through the compartment is fair providing some opportunities for fire lines if needed.

Additional Compartment Information:

- **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**

12/7/2007 2:13:32 PM

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

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 15

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
Bog or Marsh	10																		10
Jack Pine		104	201	46		245	4	17	670										1287
Lowlnd Brush	96																		96
Marsh	105																		105
Mx Swmp Cnfr								37											37
Non Stocked	19																		19
Red Pine		81				88	14	27	36									422	668
Spruce Fir						37												17	54
Treed Bog	16																		16
Upland Hdwds							25											278	303
Water	6																		6
White Pine							7	40	10									519	576
Total	252	185	201	46		370	50	121	716									1236	3177

12/7/2007 2:13:48 PM

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

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 15

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
V Bog or Marsh			10																								10
J Jack Pine							1011								276												1287
L Lowlnd Brush									96																		96
N Marsh											105																105
Q Mx Swmp Cnfr												37															37
X Non Stocked													19														19
R Red Pine															668												668
F Spruce Fir																			54								54
D Treed Bog																						16					16
M Upland Hdwds																								303			303
Z Water																									6		6
W White Pine																										576	576
Total			10				1011		96		105	37	19		944				54			16		303	6	576	3177

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: **15**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

TOTAL VOLUME		CUT VOLUME	
Hardwood	6076 Cds	Hardwood	240 Cds
Hardwood	177 Mbf	Softwood	13416 Cds
Softwood	37860 Cds	Softwood	164 Mbf
Softwood	4376 Mbf	Sum CutVol	13984 Cds
Sum TotVol	53042 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	
3177		740	

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
8	R6	36	71	44	red pine	two aged	shelterwood-seed	1	natural regeneration	
comnts Fmd : R pine intermixed with mature j pine. Well formed r pine 8-14" dbh, 3 - 5 sticks, 1 log heights. J pine 10" dbhs 4 -5 stick heights. Scattered w pine throughout. Pockets of low quality aspen and w birch. R maple saplings throughout the stand. Isolated areas of r pine stocking 140 -150 BA. Remove merchantable j pine, aspen, thin r pine and w pine to 40 -50 BA where appropriate. Protect w birch and any oak. Scarify for r pine/j pine regen. MO is for r pine, though a component of w pine regen is also expected, secondary MO j pine/aspen.										
Wld : leave spruce and maple saplings for structural and species diversity, leave birch and oak when they occur. Leave white pine, didn't see much in the stand										
9	J6	12	71	50	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : Overmature j pine, areas of mortality. 8-12" dbh, 4 -6 stick heights. Associated, scattered r pine w pine poletimber. Scattered b spruce sapling "clumps". Remove merchantable j pine and thin r pine/w pine to 20-30 BA where needed. Keep w birch and oak. Due to decline of the stand and to avoid adjacency issues, recommend an early entry, treating with adjacent stand 55, Compartment 14 in 2008 YOE. Scarify and follow up planting if necessary. MO is j pine, no secondary MO										
Wld : leave spruce for structural diversity. Leave white pine, maple saplings and birch and oak for species diversity.										
16	J6	118	43	55	red pine	mature	shelterwood-seed	2	natural regeneration	
comnts Fmd : Mature j pine. Well formed 4-6 stick heights R maple saplings and r pine poletimber throughout the stand. Areas higher stocking of j pine. Scattered w pine saplings. Remove merchantable j pine and aspen. Where needed thin w pine r pine to 40 - 50 BA or 1/3 BA . Protect w birch and any oak. Scarify for R pine regen. MO for r pine, expecting a component of w pine to become established secondary MO for j pine/ aspen.										
Wld : leave white pine (not much in the stand), birch and oak, and spruce for structural diversity. Protect maple saplings for species diversity										
25	J6	153	70	48	jack pine	two aged	final harvest	1	natural regeneration	
comnts Fmd : Mixed stand of j pine and r pine. Much of j pine is showing weak crowns due to JPBW, but trees are of good form and heights. W pine saplings 8-10' throughout and scattered, associated limby w pine. R maple saplings. West side of the stand is more heavily stocked to r pine. Remove merchantable j pine and aspen. Thin r pine, w pine to 20-30 BA where needed. Protect w birch and any oak										
Wld : leave a few large rotten aspen. Leave birch, oak and any spruce for structural diversity. Leave maple saplings for species diversity										
27	J6	31	73	50	jack pine	two aged	final harvest	1	natural regeneration	
comnts Fmd : Good j pine. Areas of noticeably weak tops from successive JPBW attacks. 4-6 stick heights 8-10" dbh. Associated r pine. W pine, r maple b spruce saplings throughout, 3-10' tall. South end of the stand has higher stocking of limby w pine. Remove merchantable j pine, aspen. Thin w pine and r pine to 20-30 BA where needed to promote seedling establishment. Keep w birch and oak. Scarify or plant if needed for j pine. MO for j pine, no secondary MO.										
Wld : leave spruce and maple saplings for structural and species diversity. Leave oak and birch.										
36	J6	79	68	50	red pine	two aged	shelterwood-seed	1	natural regeneration	
comnts Fmd : J pine 8-12" dbh 4-6 sticks height - showing heavy damage from JPBW, weak crowns. Associated r pine poletimber 8-12" dbh - good form. W pine poletimber component, especially in northwest area of the stand. Widely scattered aspen and w birch. R maple spruce/fir w pine sapling understory 3-10' tall. Remove merchantable j pine, aspen. Thin r pine w pine to 40-50 BA where needed. Scarify for r pine regen. MO for r pine expecting concurrent w pine regen. secondary MO j pine/aspen. Leave w birch and oak										
Wld : leave understory spruce and maple for diversity. Leave birch and oak.										
40	J6	141	68	48	jack pine	two aged	final harvest	1	natural regeneration	
comnts Fmd : J pine 8-12" dbh 4-6 stick heights. HEAVY JPBW damage ,tree mortality/tip flagging/top dieback. Overall scattered r pine and w pine poletimber and saplings but the north and west ends of stand have areas of higher stocking. Remove merchantable j pine and any associated aspen, if any. Thin r pine w pine to 20-30 BA where necessary. Protect w birch and any oak. Scarify for j pine regen, plant if needed. MO for j pine, no secondary MO										
Wld : leave spruce and red maple for structural and species diversity. Leave white pine (not much in the stand) and birch and oak.										
42	J6	42	73	52	jack pine	two aged	final harvest	1	natural regeneration	
comnts Fmd : Overmature j pine 8-12" dbh 4-6 sticks tall. Weak crowns, pockets of mortality. Associated r pine poletimber. Widely scattered w pine poletimber. Remove merchantable j pine, aspen, thin w pine/r pine to 20-30 BA where needed. Scarify for j pine regen, plant if necessary. MO for j pine, no secondary MO										
Wld : leave white pine (not much in the stand). Leave spruce for structural diversity and leave birch and oak.										
43	R9	39		55	red pine	unevenaged	thinning	2		
comnts Fmd : EXCELLENT r pine sawtimber and poletimber. Scattered inclusions of lower quality r pine, w pine with j pine component. Thin r pine, w pine to 80-90 BA or remove 1/3 BA. Remove merchantable j pine and scattered aspen. Leave w birch and spruce.										
Wld : leave birch and oak and maple saplings for species diversity										

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 15

Entry Year: 2009

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status	
44	J6	10	67	50	jack pine	mature	final harvest	2	natural regeneration		
<p>comnts Fmd : J pine 7-12" dbh 4-6 sticks. Scattered r pine and w pine poletimber. W pine and r maple saplings. J pine has been impacted heavily by JPBW- heavy tip flagging/weak crowns. Remove merchantable j pine, thin r pine w pine to 20-30 BA if needed. Leave w birch. Scarify for j pine regen, plant if needed. MO for j pine, no secondary MO</p> <p>Wld : leave white pine (not much in the stand), birch, oak and spruce for structural diversity.</p>											
69	J6	79	68	47	red pine	two aged	shelterwood-seed	2	natural regeneration		
<p>comnts Fmd : J pine 6-10" dbh 4-6 sticks tall. Mixed with r pine 8-16"dbh 4-5 sticks, 1-2 logs. Associated w pine, b spruce/fir, r maple understory. J pine impacted heavily by JPBW - major tip flagging and top dieback. Remove j pine, aspen, b spruce . Thin r pine, w pine to 40-50 BA where needed. Scarify for r pine regen. Protect w birch and any oak. MO is for r pine though w pine and j pine regen is also expected, along with small aspen inlcusions. Secondary MO for j pine</p> <p>Wld : leave oak, birch and a component of spruce for structural diversity. Leave some large wolffy white pine.</p>											
Total Acres.....		740									

**Proposed Treatments
With Limiting Factors**

Compartment: 15

Entry Year: 2009

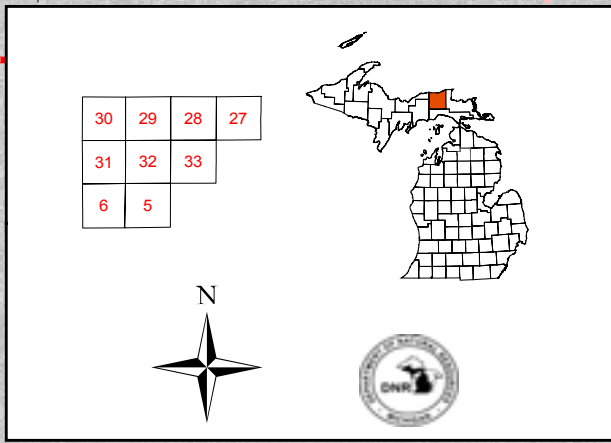
Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
--------------	-----------------------	--------------	------------	-----------------------	--------------------	------------------	-----------------------	-----------------------------	--------------------------	----------------------

TREATMENT LIMITING FACTORS:

Total Acres..... **o**

Field Map

Compartment 015
 T49N, R11W, Sec. 27-33
 T48N, R11W, Sec. 5, 6
 County: Luce
 Unit: Newberry
 YOY: 2009
 Acres: 3,177 GIS Calculated
 Stand Examiner: Ed Rice
 Map Revised: 12/04/2007
 Map Phase: Pre-Review



- Legend**
- ◆ RLS Corners
 - ◇ PVT Corners
 - ◇ Approximate Corners
 - Miris Corners
 - County Gravel Roads
 - - - Poor Dirt Roads
 - - - Trails
 - New015_orv_trails.shp
 - Closed Roads
 - Water Features
 - ✕ Berms
 - 🏠 Cabins
 - 🚙 ORV Trails
 - 🚙 Snowmobile Trails
 - Stand Boundary
 - ▨ Special Conservation Areas
 - ▨ 145 - Final Harvest/Natural Regeneration/Mechanical.other
 - ▨ 345 - Shelterwood-seed/Natural Regeneration/Mechanical.other
 - ▨ 400 - Thinning

