



**NEWBERRY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT #14 ENTRY YEAR: 2008

Compartment Acreage: 2,331 (GIS Calculated) County: Luce

Revision Date: 10/11/06

Stand Examiner: Theresa Sysol

Legal Description: T49N R11W Section(s) 19, 20, 21, 22, 28, 29, 30

RMU (if applicable):

Management Goals:

To maintain and/or enhance the health and quality of the forest ecosystem while providing for diversity of vegetative species, wildlife, and recreational needs. Cover types include 44% jack pine, 39% red pine and 17% white pine. Overmature jack pine will be removed as Jack Pine Budworm population has been building and causing increased mortality.

Soil and Topography:

Rubicon soils; rolling upland sand plains.

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

Compartment is completely surrounded by State lands.

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

MNFI has identified the potential for goshawk, eagle, and osprey, as well as moose and wolves.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):

None listed with the Bureau of History, although old logging grades can be found scattered throughout, most notably within stand(s) 16, 39, and 77.

Special Management Designations or Considerations:

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 14 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 red and jack pine with a few stands of white pine scattered throughout the compartment. In general, stands have a decent diversity of tree species. 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. Wildlife species potentially using this compartment include white-tailed deer, black bear, spruce grouse, ruffed grouse, snowshoe hare, gray wolves, coyote and fox.

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 Cambrian Munising Group subcrops below the glacial drift. These rocks have 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:

From Newberry, go north on M-123 to Co Rd 407. Travel west and north on Co Rd 407 for ~ 18 miles to Co Rd 416. Go west on Co Rd 416 ~ 4 miles to Co Rd 375 and SE corner of compartment. Several fire lanes provide interior access.

Survey Needs: None

Recreational Facilities and Opportunities:

The Pine Ridge ORV trail runs throughout this compartment, and a portion of the Newberry to Grand Marais snowmobile trail (trail #8) runs along Co Rd 416 during the winter months. Several State Forest Campgrounds are located within easy proximity, with the closest being Holland Lake SFCG (~ 1 mile east of the SE compartment boundary) and Pretty Lake SFCG (~ 2 miles east and south of the SE compartment boundary). Numerous opportunities for blueberry picking during the summer months.

Fire Protection:

County Roads and interior fire lanes would provide control lines, if need be. The compartment is part of the Two Hearted Zone Dispatch area. Continuous Pine fuel types and response time could lend to larger fire runs, although diversity of Pine fuel types may provide reduced fire behavior and allow opportunities for aggressive suppression activities.

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**

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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: 14

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
Jack Pine		242	212					18	405	141									1018
Non Stocked	8																		8
Red Pine		29				77			345	92								377	920
White Pine																		385	385
Total	8	271	212			77		18	750	233								762	2331

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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: 14

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
J Jack Pine							1010									8											1018
X Non Stocked													8														8
R Red Pine							29									891											920
W White Pine																										385	385
Total							1039						8			899										385	2331

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 14

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	1436 Cds	Hardwood	419 Cds
Softwood	21923 Cds	Softwood	11764 Cds
Softwood	3901 Mbf	Softwood	507 Mbf
Sum TotVol	31161 Cds	Sum CutVol	13197 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	779
2331			

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 14

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
3	R6	4		45	red pine	unevenaged	shelterwood-seed	3		
<p>comnts Fmd : T. sale #28-87 "Triangle sale" (Unit 1), cut 1989. Primarily treating at this time due to ongoing county road R.O.W. expansion. Original planting in F, 1930 with replant in 1962. Some red maple clumps within; weeviled WP. MO2 = W,J. 1998: (part of) stand 1</p> <p>Wld : leave any oak</p>										
7	J6	15	78	45	jack pine	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : Planted in 1930 (2-0 JP). Seeing quite a bit of blowdown and dying trees now; recent damage from budworm. Occasional PB within, which could be left for diversity and visual mgmt. Leave all oak, and most W,R - thin only for access and county R.O.W. expansion. Ground cover noted includes: bracken fern, blueberry, wintergreen, pipssisewa. Acceptable spp mix includes: J,R,W,O,B. 1998: stand 4</p> <p>Wld : leave red and white pine, can harvest some if needed for maneuverability only. Leave paper birch and oak.</p>										
8	R5	50		45	red pine	in process of regeneration		0	other - specify in remarks	
<p>comnts Fmd : T. sale #001-99, "Co Rd 410 Pine". Sale cut 5/2002. N. portion (Unit1) was scarified 8/02 (FTP42-462). Regeneration survey completed 5/06 = 137 t/ac - mixed spp. Continue to monitor regeneration and plant, if necessary. Mixed hardwood includes: PB,O. Some WP. Acceptable spp mix of R,W,J,O,B. The ORV trail runs through this stand. 1998: stand 9</p>										
11	R2	11		45	red pine	in process of regeneration		0	other - specify in remarks	
<p>comnts Fmd : Original planting done in 1929, with replant in 1962 (RP). "Co Rd 410 Pine" sale, #001-99 cut spring, 2002, with ~ 30-40 BA residual. FTP# 42-462: scarification completed 8/2002. Regeneration survey 5/2006 = 137 t/ac. Continue to monitor regeneration and follow-up with additional planting, if necessary. Will become a two-aged/unevenaged stand. The ORV trail runs along the south stand boundary. 1998: stand 23</p>										
18	R6	70	78	46	red pine	two aged	shelterwood-seed	1	natural regeneration	
<p>comnts Fmd : Planted in 1930 (2-0 R,J) with replant in 1962 (3-0 R); jack pine is being damaged by budworm and age - remove. Thin out red pine, where needed, to release/establish red pine regeneration. Acceptable MO2 = J,W. Some patches of WP within, which should be thinned lightly. PB present - could be left where it will not interfere with harvesting needs. The ORV trail runs through a small portion of the stand. 1998: stand 8</p> <p>Wld : leave paper birch</p>										
21	R9	12		45	red pine	unevenaged	shelterwood-seed	3	natural regeneration	
<p>comnts Fmd : Rolling terrain; limby RP - some mistletoe noted. Remove old jack pine - budworm present. Some smaller J/R within. Stand originally planted in 1930, with replant (R) in 1962. MO2=J,W. 1998: stand 12</p> <p>Wld : leave white pine</p>										
22	J6	18	78	45	jack pine	high risk	final harvest	1	natural regeneration	
<p>comnts Fmd : Planted in F, 1930 (2-0 J,R) with replant F, 1962 (3-0 R). Management will be a mix of both species; in addition, W,A,PB will be acceptable, for diversity. Mixed spp include: A,W. Leave W, but remove A and thin older RP. Areas with thicker RP regeneration. The ORV trail runs through the stand. May need to plant, if scarification fails due to lack of cones. 1998: N/A</p> <p>Wld : leave white pine, and paper birch</p>										
23	J6	36	77	47	jack pine	high risk	final harvest	1	natural regeneration	
<p>comnts Fmd : Heavy budworm damage noted in 2006. Stand planted, Sp, 1931. Old charred WP stumps within. Remove J, and manage for J with R,W. Quite a bit of R (sapling stage) noted, in addition to W regeneration. Mixed spp include: W,red maple. Thin RP and remove A, RM. May need to plant, if scarification fails due to lack of cones. 1998: N/A</p> <p>Wld : leave the white pine</p>										
28	J5	4	77	47	red pine	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : Small stand of planted J,R (1929); most of jack pine is dead/dying. Remove J and convert to R and/or W - good regeneration noted. In addition, stand was planted w/RP in 1963. 1998: stand 20</p> <p>Wld :</p>										
36	W9	6		45	white pine	unevenaged	thinning	3		
<p>comnts Fmd : WP is fairly limby; quite a few dead tops. Paper birch could be left within stand, if it does not interfere with equipment maneuvering. 1998: stand 27</p> <p>Wld : leave paper birch</p>										
37	J4	3	78	45	jack pine	sparse	final harvest	1	natural regeneration	
<p>comnts Fmd : Small pocket of open-grown jack pine; limby. Jack pine is dead/dying; budworm damage. Some small red pine within, as well as a few RM clumps. Could be combined with adjacent stand after cut. 1998: stand 28</p> <p>Wld : leave some red maple clumps</p>										

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 14

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
38	R9	93		45	red pine	unevenaged	shelterwood-seed	2		
<p>comnts Fmd : Planted in 1930 w/ 2 - 0 R, J. Scattered WP throughout, prior to 30's planting. South end of stand was also replanted in 1963 (3-0 R), and stand diameters are smaller here. Heavy defoliation due to JP budworm noted. Remove J and thin R,W, where needed. Some PB and oak within stand - oak primarily at the north end. The ORV trail runs through stand, and will be protected/maintained throughout harvest. MO2 = W,J. Scarification may or may not be required for additional regeneration. 1998: stand(s) 24, 29</p> <p>Wld : leave paper birch and oak</p>										
42	J6	63	68	47	jack pine	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : Stand was planted in 1929 and 1940 with 2 - 0 R,J. Jack pine is showing heavy budworm damage in 2006. Remove jack pine, aspen and thin red pine, where thicker patches exist. Release established WP regeneration with harvest. (Old charred WP stumps/snags visible within.) MO2 = R,W and a PB/A component is acceptable. The ORV trail runs through the stand. 1998: stand 42 (74,75)</p> <p>Wld : leave the white pine and a component of paper birch.</p>										
43	J1	105	4	47	jack pine	in process of regeneration		0	other - specify in remarks	
<p>comnts Fmd : T. sale # 5-98, "Log Cabin Blind Jack Pine" - cut May-July, 1999. Residual red and white pine left. Scarification completed 8/01 (FTP42-427). Regeneration count? Mixed regeneration of A,W,J,F, and R noted; still small R,J seedlings coming up. Continue to monitor for successful regeneration, and follow-up with add'l planting if regeneration does not meet acceptable levels. MO2= R,W, A component. 1998: stand(s) 62,65</p>										
45	J6	40	79	50	jack pine	high risk	final harvest	1	natural regeneration	
<p>comnts Fmd : Heavy budworm damage in 2006. Leave R,W - remove spruce/fir. Planted in both 1929 and 1940 w/ 2-0 J,R. If scarification fails, due to lack of cone seed source, follow up with planting. 1998: stand 42</p> <p>Wld : leave red and white pine and paper birch if any.</p>										
50	J6	42	71	50	jack pine	high risk	final harvest	1	natural regeneration	
<p>comnts Fmd : Planted Sp, 1937. Heavy budworm damage noted in 2006 - harvest jack pine, but leave RP for visual mgmt. Stand on the south side of Co Rd is fully stocked with J3 ~12 ft in height. 1998: stand 40</p> <p>Wld : leave red pine, and a few spruce.</p>										
51	J5	6	59	45	jack pine	high risk	final harvest	1	natural regeneration	
<p>comnts Fmd : Area which failed from original planting in 1939; slowly seeding in - more open-grown stand with some R,W. Heavy budworm damage noted in 2006. Remove JP and scarify - if scarification fails, due to lack of seed source, plant. The ORV trail runs through this stand. 1998: stand 59</p> <p>Wld : leave red and white pine</p>										
53	J6	12	69	47	jack pine	high risk	final harvest	1	natural regeneration	
<p>comnts Fmd : Planted in 1939 w/ J,R. Heavy budworm damage to jack pine noted in 2006. Remove jack pine and leave red, white pine, except in areas where there are thicker patches which need to be thinned out. MO2 = R,W 1998: stand 58</p> <p>Wld : leave red and white pine, and paper birch component</p>										
54	J5	19	69	45	jack pine	high risk	final harvest	1	natural regeneration	
<p>comnts Fmd : Planted in Sp, 1939. Frost pocket - open grown area - limby JP. Could be combined with adjacent stands after harvest. Heavy budworm damage in 2006. If scarification fails, due to lack of seed source, plant. 1998: part of stand 58</p> <p>Wld : leave paper birch</p>										
55	J6	49	69	47	jack pine	high risk	final harvest	1	natural regeneration	
<p>comnts Fmd : Planted in 1939 w/ J,R. Heavy budworm damage to jack pine noted in 2006. Remove jack pine and leave red, white pine, except in areas where there are thicker patches which need to be thinned out. The ORV trail runs through stand. MO2 = R,W 1998: stand 58</p> <p>Wld : leave red and white pine and paper birch</p>										
63	J6	93	69	47	jack pine	high risk	final harvest	1	natural regeneration	
<p>comnts Fmd : Planted in 1939 w/ J,R. Heavy budworm damage to jack pine noted in 2006. Remove jack pine and leave red, white pine, except in areas where there are thicker patches which need to be thinned out. If scarification is unsuccessful, due to lack of seed source, plant. The ORV trail runs through stand. MO2 = R,W 1998: stand 58</p> <p>Wld : leave red and white pine unless needed to harvest for maneuverability.</p>										

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 14

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
64	J5	5	59	43	jack pine	immature	final harvest	2	natural regeneration	
comnts Fmd : Smaller diameter stand of jack pine which is showing damage from budworm. Some underplanted RP (Sp, 1965) along edge of stand and to the south, which should be left. 1998: stand 59										
Wld : leave red pine										
65	R4	29	4	47	jack pine	in process of regeneration		0	other - specify in remarks	
comnts Fmd : T. sale #20-98, "Tank Lake Section 19 Pine" (unit 2), cut 7/2000. Jack pine, aspen removed and red pine thinned. FTP42-448: scarification completed 8/2001, with regeneration survey 5/04 = 335 t/ac (mixed regeneration). Continue to monitor, and follow up with planting if natural regeneration stocking levels remain low. Acceptable spp mix = A,R,W,J. 1998: stand 61										
67	J5	7	59	45	jack pine	high risk	final harvest	1	natural regeneration	
comnts Fmd : Area which failed from original planting in 1939; slowly seeding in - more open-grown stand with some R,W. Heavy budworm damage noted in 2006. Remove JP and scarify - if scarification fails, due to lack of seed source, plant. 1998: stand 59										
Wld : leave red and white pine										
68	J6	71	69	47	jack pine	high risk	final harvest	1	natural regeneration	
comnts Fmd : Planted in 1939 w/R,J. Heavy budworm damage to jack pine noted in 2006. Remove jack pine and leave red, white pine, except where patches are thicker and need to be thinned lightly. If scarification fails, due to lack of cone seed source, follow up with planting. MO2 = R,W. 1998: stand 58										
Wld : leave red and white pine except where need to cut for maneuverability. Leave birch										
70	R5	13	77	45	red pine	immature	shelterwood-seed	2		
comnts Fmd : Planted in F, 1931 with 2 - 0 J,R. Jack pine damaged by budworm. Remove J,A. MO2 = WP w/aspen component. 1998: stand 47										
Wld : leave white pine and spruce component										
75	J6	16	69	47	jack pine	high risk	final harvest	1	natural regeneration	
comnts Fmd : Planted in 1939 w/ J,R. Heavy budworm damage to jack pine noted in 2006. Remove jack pine and leave red, white pine, except in areas where there are thicker patches which need to be thinned out. MO2 = R,W 1998: stand 58										
Wld : leave red and white pine except where need to harvest for maneuverability										
79	J5	61	79	45	jack pine	high risk	final harvest	1	natural regeneration	
comnts Fmd : Stand planted in 1929 w/ 3-0 W and 2-0 J; also interplanted with 3-0 RP in 1965. Mixed commercial spp include: A,B,W. Jack pine with budworm damage. Remove J,A and thin older red pine and thicker patches within. Leave PB for wildlife. Stand could possibly be converted to R,W, if scarification fails for JP regeneration. Will be acceptable to have mixed regeneration. 1998: stand(s) 51, 52										
Wld : leave white pine, nad paper birch.										
83	J5	4	79	47	red pine	mature	final harvest	1	natural regeneration	
comnts Fmd : Planted 1929; RP interplanted. Jack pine dead/dying - budworm damage. Small stand which could be converted to R,W mgmt, due to surrounding cover types. 1998: stand 51 (79)										
Wld :										
Total Acres.....		957								

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 14

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
39	W9	17		43	white pine	old growth (potential or actual)	thinning	3		

TREATMENT LIMITING FACTORS: Historical and archeological sites

comnts Fmd : SCA recommendation, pending contact w/SHPO. Several old grades cross through stand, making it sort of unique. Old jack pine should be removed otherwise, and lightly thin WP to encourage better growth and regeneration. 1998: stand 38

Total Acres..... 17

