



**NEWBERRY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 40 ENTRY YEAR: 2008

Compartment Acreage: 1,749 (GIS Calculated) County: Luce

Revision Date: 10/11/2006

Stand Examiner: Theresa Sysol

Legal Description: T50N R09W Section(s) 25, 35, 36 and T49N R09W Section(s) 1, 2, 11, 12

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. Over 90% of the cover types are red and jack pine, and continuing sustainability of these types will be the objective.

Soil and Topography:

Rubicon sand; rolling upland sand plains

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

Several private parcels along the west edge of the compartment, with a block of corporate land to the south.

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

MNFI has identified the potential for wetland species associated with inland lakes and their shores: alga pondweed, alternate-leaved water-milfoil, Farwell's water-milfoil, lake cress, American shore-grass and fleshy stichwort. Potential for satiny willow and black crow berry along riparian areas. Potential for English sundew in N stands. Potential for goshawk, eagle, and osprey. Potential for moose and wolf. Potential for Kirtland's warbler and prairie warbler.

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

None listed with the Bureau of History

Special Management Designations or Considerations:

Continuing Michigan Technological University study on Red Pine (*Pinus resinosa*) management.

Watershed and Fisheries Considerations

Fisheries Values

Excellent. The Little Two-Hearted River is classified as FQCW, with a good population of brook trout. Spawning habitat has been generally smothered by eroding sand, but forage still appears plentiful. Fisheries Division is planning to conduct a habitat survey in the near future to determine how much effort will be needed to restore or maintain good in-stream habitat.

Wildlife Habitat Considerations:

Compartment 40 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 and red pine with a few small oak stands in the compartment. Diversity of tree species in the red pine stands is poor but not entirely lacking. 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 in red pine harvests will help provide food sources, nest and den trees, and improve structural diversity. Some super canopy trees will be left in harvested stands to serve as wildlife nest trees. Wildlife species potentially using this compartment include white-tailed deer, black bear, spruce grouse, gray wolves, coyote and fox.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of lacustrine (lake) sand and gravel and an end moraine of coarse-textured till. There is insufficient data to determine the glacial drift thickness. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville was used as a building stone in the past. Gravel pits are not located in the area, but there should be potential. There is no economic oil and gas production in the UP.

Vehicle Access:

From Newberry, go north on M-123 ~18 miles to Co Rd 500. Travel ~ 8 miles on Co Rd 500 to south end of the compartment. Fire lane and old harvest trail roads provide good interior access.

Survey Needs: None

Recreational Facilities and Opportunities:

Numerous opportunities for blueberry picking during the summer months, with one State Forest Campground ~ ½ mile to the north (Culhane Lake SFCG).

Fire Protection:

Interior fire lane roads provide control lines, if need be. This compartment is part of the Two Hearted Zone Dispatch Area. The continuous Pine fuel types and response time could lend to larger fire runs. Private ownerships with structures around and in this compartment poses wildland urban interface concerns. Generally upland sandy soils will allow normal fire suppression activities; rolling topography in this compartment may challenge suppression activities. Some small lakes may provide natural barriers for running fires.

Additional Compartment Information:

Michigan Technological University research study blocks (on *Pinus resinosa* - Red Pine) are located within Section(s) 1 and 36. Various treatments associated with study were completed Sept. - December, 2005 and spring, 2006. Follow-up research may still be pending.

- **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**

11/14/2006 8:39:37 AM

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

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 40

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			29	412	224														665
Lowlnd Brush	16																		16
Marsh	5																		5
Non Stocked	16																		16
Oak																		39	39
Red Pine				28	110			15	86	146	124							440	949
Water	48																		48
White Pine					11														11
Total	85		29	440	345			15	86	146	124							479	1749

11/14/2006 8:39:40 AM

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

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 40

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							665																				665
L Lowlnd Brush									16																		16
N Marsh											5																5
X Non Stocked													16														16
O Oak														39													39
R Red Pine																949											949
Z Water																									48		48
W White Pine																										11	11
Total							665		16		5		16	39		949									48	11	1749

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: **40**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	1228 Cds	Softwood	1086 Cds
Softwood	7078 Cds	Softwood	841 Mbf
Softwood	4114 Mbf	Sum CutVol	2768 Cds
Sum TotVol	16534 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	252
1749			

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 40

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
3	R9	20	86	45	red pine	immature	shelterwood-prep	2		
comnts Fmd : Stand was thinned under t. sale #27-88 in Sept/Oct, 1988. Prep for regeneration. MO2 = J,W. 1998: stand 3										
Wld : Leave som ebirch and oak and white pine										
5	R9	32	94	47	red pine	mature	shelterwood-prep	1		
comnts Fmd : Stand was thinned in 1976; t.sale #6-76A. FTP 42-400: experiment w/creating plow lines through stand to see if natural regeneration would establish within furrows. Completed by FMU staff in 1996; did not note any significant regeneration established. MO2 = J,W, some F,A and/or B would be acceptable. 1998: stand 5										
Wld : Leave white pine and oak if present in the stand.										
8	R9	16		45	red pine	unevenaged	thinning	2		
comnts Fmd : Stand was thinned in 1975-76? Stand could be thinned again this entry, if it will not interfere with the MTU research blocks. MO2 = W, J, and some A,B,O is acceptable. 1998: stand 8										
Wld : leave white pine and oak										
13	R9	6		47	red pine	unevenaged	shelterwood-prep	2		
comnts Fmd : Stand was thinned in 1988, "North Muskrat Sale" #19-87. MO2 = W,J, some A, B,O. 1998: stand 9										
Wld : Leave oak and white pine, Leave a paper birch component.										
14	R9	7		47	red pine	unevenaged	thinning	2		
comnts Fmd : Stand contains some rolling hills. Paper birch and oak within. 1998: stand 9										
Wld : leave paper birch and oak and some large diameter super canopy white pine.										
17	R9	14		47	red pine	unevenaged	thinning	2		
comnts Fmd : North part of stand was thinned in 1988, "North Muskrat Sale" #19-87. Mixed species include oak and white pine. Areas with better WP regeneration. Some steep portions of stand will be left untreated. Will need to keep boundary lines out of MTU research blocks. 1998: stand(s) 9,35										
Wld : leave white pine, oak and paper birch component										
25	R8	4		45	red pine	two aged	seed tree	3		
comnts Fmd : T. sale #15-79A cut in 1980, and portions of stand with JP planted in 1982. Treat with adjacent stands, mainly for access along firelane. Thin out some of the larger red pine and try to encourage more red pine reproduction. There is mixed regeneration present of R,W,M - continue to manage for mixed diversity. MO2 = J,W. 1998: stand 22										
Wld :										
44	R9	9	90	45	red pine	mature	thinning	3		
comnts Fmd : Small stand left after MTU block was treated. Lake influence zone along the SE corner of the stand will influence amount of marking done, which should be light to none. May wish to leave the stand, for visual purposes around the lake, or, wait to treat with an adjacent stand to make the stand more marketable. 1998: stand 34										
Wld : leave birch and some super canopy white pine.										
47	R6	17	75	45	red pine	immature	thinning	2		
comnts Fmd : Stand is adjacent to MTU research block, which was treated in 2005-2006; remaining portion of stand should be treated if it will not interfere with research. Suppressed RP in understory. 1998: stand 27										
Wld : leave oak and white pine if present										
57	R9	14	84	45	red pine	immature	shelterwood-prep	2		
comnts Fmd : Stand was previously thinned under t. sale "Little Two-Hearted RP" #15-87; remainder of old stand was thinned under MTU research study in 2005. If treating this small stand interferes with MTU research, delay treatment on stand. MO2 = W,J. 1998: stand 28										
Wld : leave oak and white pine if present										
62	R9	15		45	red pine	unevenaged	seed tree	3	natural regeneration	
comnts Fmd : Some older red pine within, as well as mixed spps including: PB,RM and WP. Some jack pine regeneration as well. Harvest to encourage nat'l regeneration, using scarification to expose soil for seed establishment. Try and time scarification with fall cone production. Stand slopes off into adjacent jack pine stands. If harvest interferes with MTU research block, delay treatment. MO2 = W,J. 1998: stand 24										
Wld : leave birch and white pine										

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 40

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
83	R9	20		45	red pine	unevenaged	shelterwood-prep	3		
<p>comnts Fmd : Some areas with thicker patches of R,W within. Additional regeneration noted: J, M. Stand also contains oak. Rolling to steep terrain, in places. Treat with portion of C. 44 stand 61 (N. side of firelane only) which was NOT burned with MTU research block, but was prescribed for thinning. MO2 = W,J, some A,B,O is acceptable. 1998: stand 44</p> <p>Wld : Leave oak and some white pine</p>										
85	R6	4	86	45	red pine	immature	shelterwood-seed	3		
<p>comnts Fmd : Patch of thick red pine surrounded by jack pine types. MO2 = J,W. 1998: stand 48</p> <p>Wld : leave oak</p>										
87	R6	9	74	45	red pine	immature	thinning	3		
<p>comnts Fmd : Thick ridge of pine left after surrounding timber was harvested. 1998: stand 48</p> <p>Wld : leave oak and white pine</p>										
Total Acres.....		187								

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 40

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
19	R9	55		47	red pine	unevenaged		0	other - specify in remarks	
TREATMENT LIMITING FACTORS: Interest group (name in comments)										
comnts Fmd : "MTU Study Block K & M" #22-05 - "M" block - unit 2. Cutting was completed 12/2005. This is a "no burn" research block. Clumps of oak within. If regeneration does not establish, look at follow-up treatments to promote some, as long as this does not interfere with research. 1998: stand(s) 7,13,14,35										
26	R9	53	90	45	red pine	immature		0	other - specify in remarks	
TREATMENT LIMITING FACTORS: Interest group (name in comments)										
comnts Fmd : "Witches Broom Pine" sale #32-88, cut 11-12/1988 and "MTU Study Block K & M" sale #22-05; unit 1 "K" block cut 11-12/2005 and burned (for research) April and May, 2006 (FTP 42-634). Continue monitoring for MTU research and follow-up with add'l treatments, if necessary. 1998: stand 34										
27	R9	9	84	47	red pine	immature		0	other - specify in remarks	
TREATMENT LIMITING FACTORS: Interest group (name in comments)										
comnts Fmd : MTU research block "J" - no harvesting was done, only understory burning, which was completed in 5/2006 (FTP42-635). Continue to work with MTU on monitoring results and follow-up with add'l treatments, if necessary. 1998: stand(s) 7,13,14										
28	O5	8		40	oak	unevenaged		0	other - specify in remarks	
TREATMENT LIMITING FACTORS: Interest group (name in comments)										
comnts Fmd : MTU research study block "J" - no cutting done, only prescribed burn, which was completed in 5/2006 (FTP42-635). Continue to work with MTU to monitor results, and follow-up with add'l treatments, if necessary. Prior to burning, stand had a good component of WP regeneration. 1998: stand 7										
29	R5	14	63	45	red pine	immature		0	other - specify in remarks	
TREATMENT LIMITING FACTORS: Interest group (name in comments)										
comnts Fmd : MTU research study block "J" - no cutting done, only prescribed burning (FTP42-635) completed 5/2006. Continue to work with MTU to monitor results and follow-up with add'l treatments, if necessary. 1998: stand(s) 7,13,14										
30	R9	3	84	47	red pine	immature		0	other - specify in remarks	
TREATMENT LIMITING FACTORS: Interest group (name in comments)										
comnts Fmd : MTU research block "J" - no cut, but prescribed burn completed 5/2006 (FTP42-635). This is a sidehill of pine, which burned fairly hot. Continue to work with MTU to monitor and follow-up with add'l treatments, if necessary. 1998: stand(s) 7,13,14										
54	R9	30	93	45	red pine	mature	thinning	2		
TREATMENT LIMITING FACTORS: Interest group (name in comments)										
comnts Fmd : Stand is part of MTU research - "control" block "A" - and should not be treated unless research is completed. Rolling terrain with leatherleaf pockets interspersed. Mixed regeneration present. (previously thinned in 1970's). Plow furrows within - experiment conducted in 1996 to encourage nat'l regeneration - not much noted in furrows, though. 1998: stand(s) 37,38										
55	R9	35		45	red pine	unevenaged	shelterwood-prep	3		
TREATMENT LIMITING FACTORS: Interest group (name in comments)										
comnts Fmd : Stand surrounds the MTU research "control" block, and is part of the same cover type. Treat only if the MTU block becomes available to treat, to make the stand more feasible. Part of t. sale #3-75A, which was thinned in 1977. Plow lines w/in for regeneration experiment (FTP42-401?) MO2 = W, J, F, some A,B,O is acceptable for diversity. 1998: stand 37,38										
59	R9	20	84	45	red pine	immature		0	other - specify in remarks	
TREATMENT LIMITING FACTORS: Interest group (name in comments)										
comnts Fmd : Stand harvested as sale #023-05-01 "MTU Study Blocks C & D" - Block "C". Harvest completed 09/05. FTP C42-634: prescribed burn completed 4/27/06. Sale area is part of a research project with MTU (Fire Surrogate Study Area) - continue to monitor and follow-up with add'l treatments, if necessary. Original stand before harvest was comprised of more open-grown red pine, with white pine and jack pine in the understory, and a portion had been previously thinned in 1988 under t. sale #15-87 "Little Two-Hearted RP". 1998: stand 24,28										

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 40

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
60	R9	25	75	45	red pine	immature		0	other - specify in remarks	

TREATMENT LIMITING FACTORS: Interest group (name in comments)

comnts Fmd : Stand harvested as sale #023-05-01 "MTU Study Blocks C & D" - Block "C". Harvest completed 09/2005. FTP C42-634: prescribed burn completed 4/27/2006. Sale area is part of a research project with MTU (Fire Surrogate Study Area) - continue to monitor results and follow-up with add'l treatments, if needed. Original stand before harvest was a thick patch of RP (~ 150-200 BA), with basically no regeneration in understory. 1998: stand 27

61	R8	46	87	45	red pine	mature		0	other - specify in remarks	
----	----	----	----	----	----------	--------	--	---	----------------------------	--

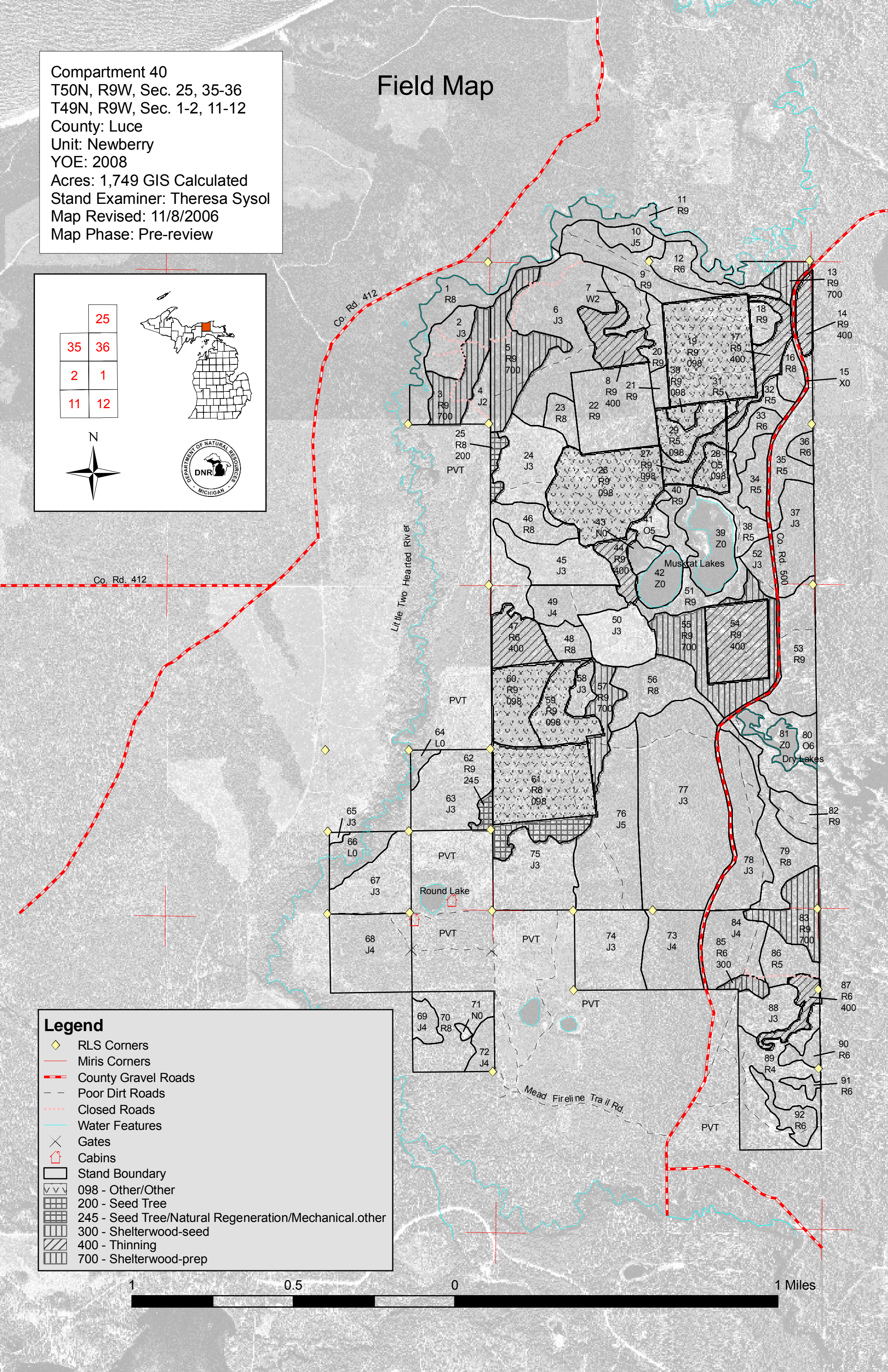
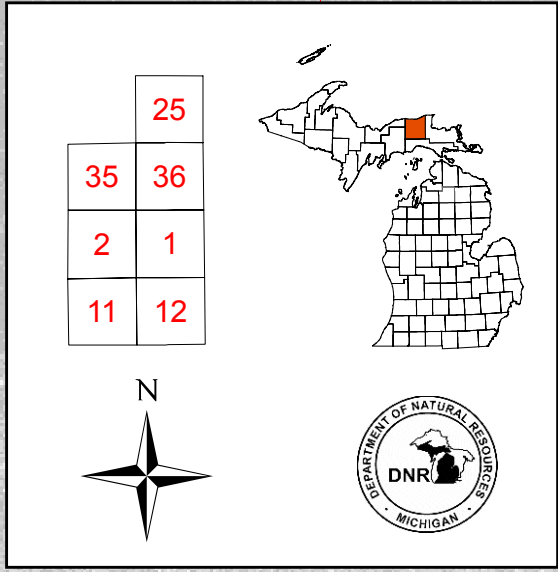
TREATMENT LIMITING FACTORS: Interest group (name in comments)

comnts Fmd : Stand harvested as sale #023-05-01 "MTU Study Blocks C & D" - block "D". Harvest completed 10/05. Sale area is part of a research project with MTU (Fire Surrogate Study Area) - no burning. Continue to monitor results, and follow-up with add'l treatments, if necessary. A portion of the stand had been previously thinned in 10/88 under t. sale #15-87 "Little Two-Hearted RP"

Total Acres..... 298

Field Map

Compartment 40
 T50N, R9W, Sec. 25, 35-36
 T49N, R9W, Sec. 1-2, 11-12
 County: Luce
 Unit: Newberry
 YOE: 2008
 Acres: 1,749 GIS Calculated
 Stand Examiner: Theresa Sysol
 Map Revised: 11/8/2006
 Map Phase: Pre-review



Legend

- ◆ RLS Corners
- Miris Corners
- County Gravel Roads
- - Poor Dirt Roads
- Closed Roads
- Water Features
- × Gates
- 🏠 Cabins
- ▭ Stand Boundary
- ▨ 098 - Other/Other
- ▩ 200 - Seed Tree
- ▧ 245 - Seed Tree/Natural Regeneration/Mechanical.other
- ▦ 300 - Shelterwood-seed
- ▤ 400 - Thinning
- ▥ 700 - Shelterwood-prep

