



**NEWBERRY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 110 ENTRY YEAR: 2009

Compartment Acreage: 1563 County: Luce

Revision Date: 10/16/07

Stand Examiner: Jason Tokar

Legal Description: T46N R10W Sections 4, 5 & 6

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 (aspen, red 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.

Soil and Topography: Upland areas are dominated by two soil types; Kalkaska sand and Liminga-Alcona complex. These upland soils support cover types of aspen, red pine and northern hardwoods. There is a scattering of lowland areas primarily in the southern reached of the compartment, dominated by Carbondale, Lupton and Tawas muck soils supporting cedar, spruce and mixed swamp conifer cover types. The terrain throughout the compartment is level to slightly rolling, with a few ridges at the transition from upland to lowland.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is entirely State owned, with a few small private parcels protruding into the boundary. The north, east and south boundaries are primarily State ownership with a mix of small private land owners. A portion of the State land north of the compartment is under Luce County Lease agreement. To the west of the compartment is State land. Development around the area is moderate with many permanent residences to the east and wet along County Road 407. The main types of land use of the area are hunting, snowmobile and ORV riding, berry picking, wildlife viewing and timber production.

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: There are no special management designations.

Watershed and Fisheries Considerations: Fisheries Values
None.

Wildlife Habitat Considerations: Compartment 110 lies in central Luce county in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. Red pine, and highly diverse aspen and northern hardwoods comprise much of the compartment with a few grass openings, fir/spruce and swamp conifer stands scattered throughout. Pre-settlement vegetation data suggests that conifers might have been more prevalent in the past than occurs in the forest today.

Conifer retention in hardwood and aspen stands will provide nesting, denning and forage sites and cover. Mast producing species will generally be left for food and snag production. Existing nest and den trees, snags, and woody debris will be maintained in stands where they exist. Structural and species diversity will be maximized in red pine harvests by retaining hardwoods and spruce/fir understory where they exist. Gray wolves, white-tailed deer, black bear, coyotes, ruffed grouse and marten are noteworthy wildlife species potentially using this compartment.

Mineral Resource and Development Concerns and/or Restrictions: Sections 4 – 6, T46N-R10W, Luce County

Surface sediments consist of an end moraine of coarse-textured till and peat and muck. There is insufficient data to determine the glacial drift thickness. The Ordovician Utica Shale subcrops below the glacial drift. The Utica does not have a current economic use. Gravel pits are not located in the area, but there should be potential on uplands. There is no economic oil and gas production in the UP.

Vehicle Access: Located 8 miles northwest of Newberry, the compartment is bordered on the north by County Roads 407 and 426. A network of forest roads (two track dirt roads) transects the compartment providing extensive vehicle access. Access can also be gained from the south via forest roads. Several abandoned/closed used for past timber sales are also found throughout the area.

Survey Needs: For management activities to occur: Establishment of SW1/16 of Section 6; verification of private survey in NE1/4 of Sec 6; and verification of private line work in NE1/4 of Sec 4.

Recreational Facilities and Opportunities: Recreational facilities include the Three Mile Snowmobile Trail and the Silver Creek ORV Trail. Opportunities for recreation include hunting, hiking, berry picking, wildlife viewing, snowmobiling and ORV riding.

Fire Protection: Potential for large fire runs may be low, because of the hardwood fuel types, grassy openings and scattered Red Pine plantations. Upland ground and network of roads are favorable for fire equipment access. Private property risk is low.

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: 110

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		3	188		39		9	84	50										373
Black Spruce									31										31
Cedar										11									11
Grass	63																		63
Lowlnd Brush	8																		8
Mx Swmp Cnfr									69										69
Non Stocked	2																		2
Red Pine						30	300												330
Spruce Fir							56											25	81
Upland Brush	238																		238
Upland Hdwds				5			17	76										257	355
Water	2																		2
Total	313	3	188	5	39	30	382	160	150	11								282	1563

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

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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	373																										373
S Black Spruce		31																									31
C Cedar				11																							11
G Grass					15																		48				63
L Lowlnd Brush									8																		8
Q Mx Swmp Cnfr												69															69
X Non Stocked													2														2
R Red Pine															330												330
F Spruce Fir																			81								81
U Upland Brush																							238				238
M Upland Hdwds																								355			355
Z Water																									2		2
Total	373	31		11	15				8			69	2		330				81				286	355	2		1563

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: **110**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	10500 Cds	Hardwood	3457 Cds
Softwood	17620 Cds	Softwood	2839 Cds
Softwood	385 Mbf	Softwood	97 Mbf
Sum TotVol	28890 Cds	Sum CutVol	6490 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	289
1563			

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
17	R6	29	52	55	red pine	immature	thinning	1		
comnts Fmd : Red pine plantation planted around 1960. Never been thinned. Notes from 1997 state "interplanted, hardwoods and aspen outgrew the red pine - very uneven red pine density." Fairly decent rows, wide spacing. Prescribed for a 3rd row thinning. Remove all trees in marked rows regardless of species. Leave aspen and miscellaneous species within the stand outside of marked rows for diversity.										
Wld : leave all aspen, maple, birch, beech outside of marked rows										
18	A6	10	66	55	aspen (upland)	mature	final harvest	1		
comnts Fmd : Ridges of mature aspen around a small bog lake/pond. Very steep in some areas. Parts of the stand may be in-operable. Clearcut with reserves. Leave all white pine and white birch. Pockets of stand will be left as residual in areas where the slope is too steep for harvesting near the pond/lake.										
Wld : leave all white pine and paper birch. Buffer the pond a bit.										
25	A6	1	63	60	aspen (upland)	mature	final harvest	1		
comnts Fmd : Nice, tall clones of mature aspen. Fairly healthy. Component of beech and maple. Thick M3 understory. Final harvest the stands. Small acreage, clones of aspen. No retention species needed.										
Wld : leave all the conifer in the stand										
26	A6	2	63	60	aspen (upland)	mature	final harvest	1		
comnts Fmd : Nice, tall clones of mature aspen. Fairly healthy. Component of beech and maple. Thick M3 understory. Final harvest the stands. Small acreage, clones of aspen. No retention species needed.										
Wld : leave all the conifer										
30	A6	28	59	60	aspen (upland)	mature	final harvest	1		
comnts Fmd : Stand of low quality red maple and mature aspen. Component of balsam, white birch, yellow birch and beech. Better quality in the eastern portion of the stand. Aspen is shorter to the west. Some mortality in the aspen. M3 understory of maple and beech. Lots of younger maple and aspen along the stand edges. Clearcut with reserves. Leave white pine, white birch, yellow birch and conifers 4 inches or less in diameter.										
Wld : leave all white pine, paper and yellow birch, and conifers 4" dbh and smaller. Leave hardwood pockets where thicker to hardwood										
34	R6	51	51	60	red pine	immature	thinning	1		
comnts Fmd : Red pine plantation planted in 1960. Stand thinned in 1995. West half of the stand has smaller diameters. Scattered large maple throughout. Pockets of smaller maple throughout the stand. High Basal Area. Prescribed for a thinning (2nd thinning). Reduce the basal area. Maintain pockets of maple within the stand for diversity.										
Wld : leave pockets of hardwood for diversity. Leavespruce/fir in understory										
48	A6	11	60	60	aspen (upland)	mature	final harvest	2		
comnts Fmd : Mature aspen with low quality red maple, large beech (BBD), scattered yellow birch, balsam, white birch. BBD and dieback in the maple. White pine all size classes. Mature aspen is showing signs of mortality and decline. Prescribed for a final harvest, clearcut with reserves. Leave all white pine, yellow birch and some large spruce. Edges will have a variety of species left as residual. Stand was separated from stand 48 at the 1997 C. Review (formerly all one stand 57). Decision was made to divide into two stands, one with a management objective of aspen and prescribed for a final harvest (this stand 48) and the other to have a management objective of northern hardwoods with no prescription (stand 47). Continue with these recommendations this entry year.										
Wld : leave all white pine, yellow and paper birch and some large spruce.										
51	U0	40			upland brush	nonstocked		0	opening maintenance	
comnts Fmd : Opening with lots of encroachment. Fairly open in some spots. Aspen clones within the stand were harvested in 1991. Opening maintenance prescribed burn was completed in 2000. Evidence of the success of the previous burn can be seen with the reduction of encroachment in spots. Opening needs a followup burn before the positive results of the previous burn are lost. Prescribed for opening maintenance burn again this entry year.										
Wld : very low priority for wildlife										
58	R6	30	47	50	red pine	immature	thinning	1		
comnts Fmd : Red pine plantation planted in 1960. Small stand of hardwoods within the stand. Fair amount of porcupine damage in areas near the hardwoods pockets. Scattered cherry and white pine. Prescribed for a first thinning (3rd row thinning). Remove only those miscellaneous species found within the marked rows to be cut. 1997 notes state a poor survival of the stand. Well stocked now.										
Wld : Leave all hardwoods, cherry and white pine outside of marked rows.										

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
71	R6	28	50	55	red pine	immature	final harvest	1	planting	
comnts Fmd : Planted in spring of 1960. Quality of the stand is low for a red pine plantation, Short trees, large diameters, limby. Lots of porcupine damage. Open areas where the plantation didn't take as well. Pockets of hardwoods and aspen. 1997 notes stated "poor survival, not the quality we want, short, fat limby trees". Some pockets of quality within the stand. Overall, quality is low. Stand will not benefit (increase quality or diameter) by thinning the stand. Prescribed for a final harvest. Prescribed burn to follow the harvest for slash reduction to aid in replanting the stand. Possible release of the stand to reduce hardwood competition if needed.										
Wld :										
74	U0	57			upland brush	nonstocked		0	opening maintenance	
comnts Fmd : Opening with lots of encroachment. Fairly open in some spots. Opening maintenance prescribed burn was completed in 2000. Evidence of the success of the previous burn can be seen with the reduction of encroachment in spots. Resulted in a lot of cherry and aspen being killed as was planned. Areas of grasses are evident where bracken fern was reduced by the burn. Stand is beginning to re-sprout. Opening needs a followup burn before the positive results of the previous burn are lost. Prescribed for opening maintenance burn again this entry year. Summer of fall burn after the initial growing period in the spring. Possibly do 1 day fo TSI work by staff prior to the burn to aid in the success of the burn on the larger trees.										
Wld : very low priority for wildlife										
75	A6	14	62	55	aspen (upland)	two aged	final harvest	2		
comnts Fmd : Mixed stand of low quality red maple, mature aspen, large white spruce and remnants of a spruce planting from 1960 (moderate survival). Much of the maple has dead tops and showing decline. Aspen is mature and starting to show mortality. Aspen is starting to sprout even under the thick canopy. Clearcut with reserves. Retain pockets of small (planted) spruce, leave all white pine and white birch if present.										
Wld : leave all white pine and paper birch and spruce pockets.										
88	A6	19	72	62	aspen (upland)	mature	final harvest	1		
comnts Fmd : Mature aspen stand with some dieback and decline. Aspen is large diameter and over mature in most areas. Parts of the stand are semi-open with slightly shorter aspen. Pocket of younger (A4/A3) aspen in NE corner and NW corner has small limby white pine (leave these pockets as residual). Open grown maple along the stand edges. Clearcut with reserves. Old notes (1997 - stand 62) state to "enhance aspen where possible.										
Wld : leave most conifers and some hardwood in the stand										
93	M6	6		53	northern hardwood	unevenaged	shelterwood-seed	1		
comnts Fmd : Stand is comprised mainly of dying beech (BBD) and fair quality hard maple. Previously part of adjacent stand to south (last entry year). Beech is in very bad shape, almost dead. Good M3 understory throughout - primarily beech. Prescribed for a shelterwood harvest. Remove all but 10 sq ft of beech (W/L trees). Mark maple to 40 BA residual. Possible chip operation to remove small beech and promote better maple regeneration.										
Wld : wildlife does not support a chip operation. Wildlife beech should be some larger, limby ones as well as smaller, possibly healthier ones. Consider underplanting to oak or with conifers.										
94	A6	18	61	65	aspen (upland)	mature	final harvest	1		
comnts Fmd : Mature aspen. Lots of tall mature balsam in pockets. Areas of limby, multi-stem maple and beech (low quality). Good M3/F3 understory. Some rot and decline in the aspen. Beech is dying out. Scattered small diameter white pine pockets. Clearcut with reserves. 1997 notes (stand 83) - enhance aspen where possible.										
Wld : leave all white pine. Leave a component of large fir, a component of birch and cherry (various diameters). Leave a few wolfy hardwoods for stand diversity										
96	M6	11		50	northern hardwood	unevenaged	shelterwood-seed	1		
comnts Fmd : Very low quality hardwoods in the southern half of the stand. Beech is a high component and is all dying (BBD). Red maple showing decline and dead tops (at least 60% of maple). Pockets of good quality red maple. Good M3 understory throughout. Prescribed for a shelterwood harvest. Remove all beech except a few W/L trees. Mark maple to residual of 40 BA. Remove beech (chip or run over) down to 2 inches in diameter to facilitate better maple regeneration.										
Wld : Wildlife does not support a chip operation on this stand. Leave 10 BA of beech and do not run over or chip the small diameter trees. Maintain a cherry component of various diameters, yellow birch if present and conifers.										
100	A6	31	69	50	aspen (upland)	mature	final harvest	1		
comnts Fmd : Primarily an aspen stand with a mix of red maple, balsam, white birch, spruce and cherry. South half of the stand has better aspen. Open areas with small aspen, white pine, balsam and cherry. Pockets of M6, pockets of A6. Main stand is mature aspen showing some mortality. Clearcut with reserves. Leave all cedar and small balsam and spruce. Possibly mark a few white birch clumps and large spruce to leave. Will be good amount of small trees of all species left in open areas.										
Wld : leave birch, pockets of primarily conifer and some large spruce, cedar, small fir, and white pine.										

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 110 Entry Year: 2009

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
492	G0	48			upland brush	nonstocked		0	opening maintenance	

comnts Fmd : Opening with lots of encroachment. Fairly open in some spots. Opening maintenance prescribed burn was completed in 2000. Evidence of the success of the previous burn can be seen with the reduction of encroachment in spots. Resulted in a lot of cherry and aspen being killed as was planned. Areas of grasses are evident where bracken fern was reduced by the burn. Stand is beginning to sprout. Opening needs a followup burn before the positive results of the previous burn are lost. Prescribed for opening maintenance burn again this entry year. Summer or fall burn after the initial growing period in the spring. Possibly do 1 day of TSI work by staff prior to the burn to aid in the success of the burn on the larger trees.

Wld : very low priority for wildlife

Total Acres..... 434

**Proposed Treatments
With Limiting Factors**

Compartment: 110

Entry Year: 2009

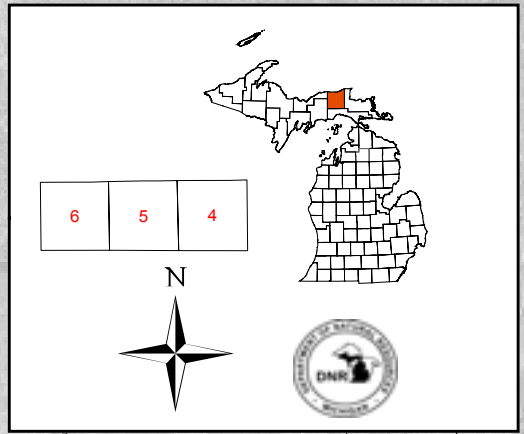
Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
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TREATMENT LIMITING FACTORS:

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

Compartment 110
 T46N, R10W, Sec. 4-6
 County: Luce
 Unit: Newberry
 YOE: 2009
 Acres: 1,563 GIS Calculated
 Stand Examiner: Jason Tokar
 Map Revised: 12/07/2007
 Map Phase: Pre-Review

Field Map



Legend

- RLS Corners
- County Paved Roads
- County Gravel Roads
- Miris Corners
- Poor Dirt Roads
- Trails
- Closed Roads
- Water Features
- Residences
- ORV Trails
- Snowmobile Trails
- Stand Boundary
- 027 - Opening Maintenance
- 100 - Final Harvest
- 117 - Final Harvest/Planting/Prescribed Burning
- 300 - Shelterwood-seed
- 400 - Thinning

