



**NEWBERRY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT #67 ENTRY YEAR: 2007

Compartment Acreage: 1,750 (GIS Calculated) County: Chippewa

Revision Date: 10/26/2005

Stand Examiner: Theresa Sysol

Legal Description: T50N R06W Section(s) 21-23, 27, 28, 33, 34

RMU (if applicable):

Management Goals:

To maintain and enhance forest health and diversity while incorporating recreational, wildlife, fire, and any additional special concerns.

Soil and Topography:

Soils are primarily Deer Park - Dawson/AuGres association within rolling upland sand plains. Forest cover types are over 60% jack pine, with another 20% red pine. Minor components of white pine, spruce, cedar, paper birch, swamp hardwoods, marsh, and bogs.

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

The Lake Superior shoreline continues to be extensively developed, as well as some of the interior private lands.

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 climbing fumitory, pine-drops, and false violet in pines. Potential for great blue heron rookery, spruce grouse, eagle, osprey, merlin and goshawk. Potential for moose and wolf. Potential for incurvate emerald, frigga fritillary, freija fritillary, and ebony boghaunter in boggy areas.

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

Old maps indicate the current Andrus Lake State Forest Campground was the site of the Box Car (logging) Camp.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations

Fisheries Values

Good. Andrus Lake provides decent fishing for perch, panfish, and bass. We no longer stock trout there. Andrus Lake is in the FTP system for tree drops, as we wish to place 15-20 trees off shore into shallow water. We are currently checking with DEQ to see if we also need their permit to place the trees.

Wildlife Habitat Considerations:

Compartment 67 lies in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. This compartment is largely jack and red pine with some marshes and greater conifer diversity in the southern portion surrounding Andrus Lake. Current vegetation patterns are similar to what was expected during pre-settlement times.

In pine dominated ecosystems, 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. 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, spruce grouse, ruffed grouse, black bear, gray wolves, coyotes and fox.

Mineral Resource and Development Concerns and/or Restrictions:

Sections 15, 21-23, 26-28, 33 & 34, T50N-R6W & Section 2 & 3, T49N-R6W, Chippewa County Surface sediments consist of lacustrine (lake) sand and gravel. 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 may be some potential. There is no economic oil and gas production in the UP, although there was a recent well drilled in Schoolcraft County.

Vehicle Access:

Follow M-123 north to Paradise. Continue to follow the Wire Road ~ 6 miles north to the Vermillion Road. The Vermillion Road runs through the approximate center of the compartment. Interior roads are extremely poor sand two-tracks.

Survey Needs:

Need to establish corners for the NENW Section 23, also check private survey work along the east side of the Wire Road to ensure no trespasses. Possible survey work needed within Section 33 and 34.

Recreational Facilities and Opportunities:

Andrus Lake State Forest Campground and the snowmobile trail fall within this compartment. Adjacent to the compartment is the Shelldrake Flooding and campground, which brings extra recreationists through the area. An abundant area to pick blueberries, when in season, and the nearby Whitefish Bird Observatory and Shipwreck Museum brings in visitors, also.

Fire Protection:

This compartment is in the Whitefish Zone Dispatch Area. Generally continuous Jack Pine fuel type could allow fires to grow large and rapidly, which may put surrounding private properties at risk. Response times to fires in this area are long and may be a factor in fire size.

Additional Compartment Information:

None

- **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

CHIPPEWA COUNTY

COMPARTMENT: 67

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
Black Spruce								6	56										62
Cedar									12										12
Jack Pine		399	189	16	61	55	15	123	243									12	1113
Marsh	39																		39
Non Stocked	4																		4
Oak								5											5
Paper Birch								6											6
Red Pine								49	129	80								118	376
Spruce Fir																		6	6
Swamp Hrdwds																		4	4
Treed Bog	12																		12
Upland Hdwds																		20	20
Water	35																		35
White Pine																		56	56
Total	90	399	189	16	61	55	15	189	440	80								216	1750

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

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

CHIPPEWA COUNTY

COMPARTMENT: 67

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
S Black Spruce		62																									62
C Cedar				12																							12
J Jack Pine							1098									15											1113
N Marsh											39																39
X Non Stocked													4														4
O Oak														5													5
B Paper Birch															6												6
R Red Pine																376											376
F Spruce Fir																			6								6
E Swamp Hrdwds																				4							4
D Treed Bog																							12				12
M Upland Hdwds																								20			20
Z Water																									35		35
W White Pine																										56	56
Total		62		12			1098				39		4	5	6	391			6	4		12		20	35	56	1750

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

CHIPPEWA COUNTY

COMPARTMENT: **67**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	1116 Cds	Hardwood	76 Cds
Softwood	14755 Cds	Softwood	6978 Cds
Softwood	777 Mbf	Softwood	109 Mbf
Sum TotVol	17425 Cds	Sum CutVol	7272 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	
1750		560	

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 67

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
5	J6	4	70	53	jack pine	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : Small stand left as snowmobile trail buffer. Some oak, paper birch present, which can be left for diversity when stand is harvested. Original planting of stand with 3-0 J,R in the fall, 1938 - continue to manage for a mixed stand. Soils are Deer Park - Kinross. 1997: stand 4</p> <p>Wld : leave oak and paper birch</p>										
6	J0	34	5	50	jack pine	in process of regeneration		0	other - specify in remarks	
<p>comnts Fmd : "Hidden Corner" sale #048-97-01. Cut March, 2000. FTP #42-492: scarification completed in 6/00 - 38.4 acres. Patches of red pine poles (8") left within cut, as well as isolated trees. Some white pine and oak regeneration noted, clumps of red maple saplings, as well as JP (1-3' height) - stocking appears to be adequate, but a regeneration check should have been completed. Ground cover includes bunchberries. 1997: stand 4</p>										
11	J0	6	5	50	jack pine	in process of regeneration		0	other - specify in remarks	
<p>comnts Fmd : "Hidden Corner" sale #048-97-01. Cut March, 2000. FTP #42-492: scarification completed in 6/00 - 38.4 acres. Patches of red pine poles (8") left within cut, as well as isolated trees. Some white pine and oak regeneration noted, clumps of red maple saplings, as well as JP (1-3' height) - stocking appears to be adequate, but a regeneration check should have been completed. Ground cover includes bunchberries. 1997: stand 4</p>										
25	J6	45	70	45	jack pine	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : Stand originally planted in the fall, 1938 with 3-0 R,J. Approximately 4-5% of trees are dead, due to budworm damage, with some dead tops on others. In areas where trees are more open-grown, jack pine are limby. Leave any red and white pine for diversity when stand is cut. 1997: stand 12</p> <p>Wld : leave red and white pine</p>										
31	J6	84	70	45	jack pine	mature	final harvest	2	natural regeneration	
<p>comnts Fmd : West portion of stand was originally planted Fall, 1938 with 3 - 0 R,J. Jack pine is ~ 7 - 8% dead due to budworm damage. The snowmobile trail route follows a portion of the north stand boundary. Misc. spp include: white and red pine, oak and paper birch - leave these for diversity and seed source when harvest occurs. Ground cover includes: cow wheat, blueberry, lily of the valley, starflower and reindeer moss. Private property lines are established. 1997: stand 12,14</p> <p>Wld : leave oak, red and white pine and paper birch</p>										
32	R6	20	70	45	red pine	immature	shelterwood-seed	2	natural regeneration	
<p>comnts Fmd : Stand originally planted with 3 - 0 R,J in Fall, 1938. Remove jack pine and thin red pine, where needed, to improve stand maneuverability and residual quality. Misc. spp include: oak, white pine. Good species to leave for diversity. 1997: stand 14</p> <p>Wld : leave oak and white pine</p>										
33	J6	33	69	45	jack pine	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : Part of stand was planted Sp, 1938 with 3 - 0 RP and 2 - 0 JP; ~ 10% of jack pine is dead now. Leave red pine for diversity and seed source. Ground cover includes: cow wheat, bracken, blueberry, and lily of the valley. 1997: stand 45</p> <p>Wld : leave red pine</p>										
41	R6	32	70	45	red pine	immature	thinning	2		
<p>comnts Fmd : Originally planted in 1938 with 3 - 0 R,J. Manage for mixed diversity now. Leave white pine, oak, paper birch - mark some red pine. Some smaller areas of timber within. 1997: stand 16</p> <p>Wld : leave white pine, oak and paper birch</p>										
48	J6	42	66	50	jack pine	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : ~ 7% mortality within stand due to age, budworm. Leave red and white pine for diversity. 1997: stand 35</p> <p>Wld : leave red and white pine and oak</p>										
50	J6	12		45	jack pine	unevenaged	final harvest	1	natural regeneration	
<p>comnts Fmd : Poor quality jack pine of mixed ages. Heavy blueberry ground cover may present regeneration problems. Some older red and white pine within, which should be left for diversity and seed source. The snowmobile trail runs through the stand. 1997: stand 33</p> <p>Wld : leave red and white pine</p>										

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 67

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
65	R6	47	83	50	red pine	immature	thinning	2		
<p>comnts Fmd : Several marsh/wet areas located within stand to avoid when marking/harvesting. Should be no need to exclude with red line boundary, as long as specifications are written to avoid these "obvious" areas. Fairly open understory. Mixed species include: oak, paper birch and spruce, all of which can be left for diversity within stand. 1997: stand 22</p> <p>Wld : leave oak, birch and spruce</p>										
68	J2	27	5	46	jack pine	in process of regeneration		0	other - specify in remarks	
<p>comnts Fmd : "Oxbow" Sale # 30-97-01. Harvested in Fall, 1999 - Spring, 2000. Some residual red and white pine. FTP # 42-488: scarification completed 6/00. Still needs regeneration check. Thick regen noted on NW side of road; other areas spotty. JP is ~ 1-2 feet in height. 1997: stand 28</p>										
73	J2	6	5	46	jack pine	in process of regeneration		0	other - specify in remarks	
<p>comnts Fmd : "Oxbow Sale" #30-97-01. Harvested 1999-2000. A few 4-6" dbh JP left, as well as residual R,W,O, PB. FTP # 42-488: scarification completed 6/00. Still needs regeneration check. Thick blueberry ground cover. 1997: stand 26</p>										
Total Acres.....		392								

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 67

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
1	R6	9	70	50	red pine	immature	shelterwood-seed	2	natural regeneration	
<p>TREATMENT LIMITING FACTORS: Road needed (resources not presently available) Blocked by other physical obstacle Water quality/bmps</p> <p>comnts Fmd : Questionable as to access for harvest, with marsh type bordering to the west and private lands, with no existing roads present, to the east. Survey would be needed, esp. with current land development trends in the area. Possibly a private survey is already completed - follow-up with survey crew. Found no evidence of this, though. The stand type does change within this stand, also, with the north end being more paper birch, large aspen, maple, softwoods and some cedar (ground cover of bunchberries, leatherleaf, lab tea) and moving towards planted red and jack pine area with old WP stumps scattered throughout. A lot of the aspen is overmature and past prime, but should be harvested, as well as the paper birch which is dead/dying. Mixed softwood spps include: BF, S, C and Mixed pine = J,W. Leave cedar and white pine, when harvest, but remove all fir, spruce, aspen, red maple, birch, jack pine and thin red pine (both R,J were planted in F, 1938 with 3-0 stock). Manage for a diversity of species. 1997 entry: stand 1</p> <p>Wld : leave cedar and white pine</p>										
3	B6	6	67	46	paper birch	mature	final harvest	3		
<p>TREATMENT LIMITING FACTORS: Too wet Water quality/bmps</p> <p>comnts Fmd : Variable stand; contains many fingers of low, wet ground which will create difficult harvesting without impacting site condition. Ground cover spps noted include: bunchberries, royal fern, blueberry and bracken fern. Some of this stand is from plantings in the fall of 1938. If harvest, leave cedar, white and red pine for diversity. May only wish treat a portion of stand to access prescribed stand 4. Manage for mixed diversity. 1997: stand 1</p> <p>Wld : leave cedar and red and white pine</p>										
4	R6	6	70	50	red pine	immature	shelterwood-seed	2	natural regeneration	
<p>TREATMENT LIMITING FACTORS: Land survey needed</p> <p>comnts Fmd : Stand was left from when adjacent cutting was done due to the need for survey against private lands. Stand was planted in F, 1938 with 3-0 J,R and management should allow for a mixed stand in the future whenever harvest occurs. Some budworm damage. Some paper birch noted, which can be left for diversity. 1997: stand 2</p> <p>Wld : leave paper birch and any white pine</p>										
15	J6	81	67	50	jack pine	mature	final harvest	1	natural regeneration	
<p>TREATMENT LIMITING FACTORS: Delayed treatment for age/size class diversity</p> <p>comnts Fmd : Stand combines two stands from last entry; both are of the same age. One portion is more open-grown, limby and two-aged with budworm damage and galls, while the other is denser, straight and fairly limb-free; budworm damage here also. Approximately 8% of total stand is dead. Some diameter class variability. Noted some pink lady slipper. A few red and white pine present, which should be left when stand is treated. Fairly thick blueberry ground cover, which may interfere with regeneration efforts. Within the adjacent stand (and compartment) to the north, a large harvest is currently under contract. May wish to hold this stand for diversity, in order to allow regeneration to establish first. 1997: stand(s) 43,9</p> <p>Wld : leave red and white pine</p>										
26	J6	15	70	45	red pine	mature	final harvest	3	planting	
<p>TREATMENT LIMITING FACTORS: Land survey needed Scenic values/visual values</p> <p>comnts Fmd : Stand follows along slope/ridgeline and runs parallel to main traffic route to Whitefish Pt. Quite a bit of dead jack pine already, as well as trees with dead/thinning tops. Jack pine should be removed, although there will be special concerns due to visual impacts along road, topography (several tiered slopes run up to main slope), and regeneration needs (thick blueberry cover). Stand slopes sharply south of the adjacent sand pit. Habitat type is PVE, and to encourage stand to move more towards a climax condition, leave all hardwoods species (oak, paper birch, maple, aspen) and change management to R or W. Will need some survey work. Soils are a mix of Deer Park and Croswell - AuGres. 1997: stand 2,11</p> <p>Wld : leave oak, paper birch, maple and aspen</p>										

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 67

Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
42	R6	21	70	45	red pine	immature	improvement	3		

TREATMENT LIMITING FACTORS: Recreational site

comnts Fmd : Andrus Lake S.F.C.G. Area formally the "Box Car Camp" (pre-1939) - logging camp. Planted 1938 with 3 - 0 R,J. Heavily used recreation site, but there are a lot of dead/dying jack pine trees (due to age and budworm) within, which create a hazard to campers. Mixed species include oak, paper birch. Lots of oak seedlings ground cover, as well as cow wheat, bracken, blueberry, and lily of the valley. If possible, harvest jack pine, and possibly a few red pine, where thinning needs to occur, with adjacent prescribed cutting. Will be difficult to harvest. All trees will need to be marked for cut. Otherwise, staff will need to address removal of hazard trees eventually. 1997: stand 17

Wld : leave oak and paper birch

51	R6	21	80	45	red pine	immature	thinning	2		
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TREATMENT LIMITING FACTORS: Land survey needed

comnts Fmd : Snowmobile trail route runs through stand. On the south side of trail/road, there is a fairly steep intermittent wet area (old river oxbow?), which contains more spruce, white pine and paper birch. Use caution with harvest line placement. Private E-W line is already established. Misc. spp include: oak, white pine, spruce and paper birch. 1997: N/A (land acquired 1985)

Wld : leave white pine, oak, spruce and paper birch

52	J6	40	70	45	jack pine	mature	final harvest	1	natural regeneration	
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TREATMENT LIMITING FACTORS: Land survey needed

comnts Fmd : Very variable stand with ~ 16% dead. Will need some survey work done. Leave any red and white pine for diversity. 1997: N/A (land acquired 1985)

Wld : leave red and white pine

54	J6	14	70	45	jack pine	mature	final harvest	2	natural regeneration	
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TREATMENT LIMITING FACTORS: Delayed treatment for age/size class diversity

comnts Fmd : Slightly rolling terrain (receding beach) - lower areas heavier to spruce with gradual ridges more to jack pine, red pine. Ground cover includes leatherleaf, lab tea, cinnamon fern, starflower. Could hold stand for a wildlife corridor, and then harvest in another 10 years with adjacent stand (46). 1997: stand 30

Wld : leave birch if any

66	R6	12	83	45	red pine	immature	thinning	3		
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TREATMENT LIMITING FACTORS: Too wet

comnts Fmd : Stand contains a lot more spruce/fir in understory than adjacent stand; wetter ground, also. Some areas may be too difficult to access due to low edges; use extreme discretion when running boundary lines. Remove spruce, jack pine and thin larger red pine. Ground cover includes: bunchberries, lab tea, blueberry, leatherleaf. 1997: (part of) stand 30

Wld : leave any white pine

72	J5	8	69	46	jack pine	two aged	final harvest	2	natural regeneration	
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TREATMENT LIMITING FACTORS: Land survey needed

comnts Fmd : Old, open-grown limby stuff! Heavy blueberry ground cover may interfere with regeneration efforts. Minor component of R,W (some of which is fairly old) which should be left behind for diversity when stand is harvested. Survey may be needed. 1997: stand 27

Wld : leave red and white pine

74	R6	8	77	45	red pine	immature	thinning	3		
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TREATMENT LIMITING FACTORS: Land survey needed

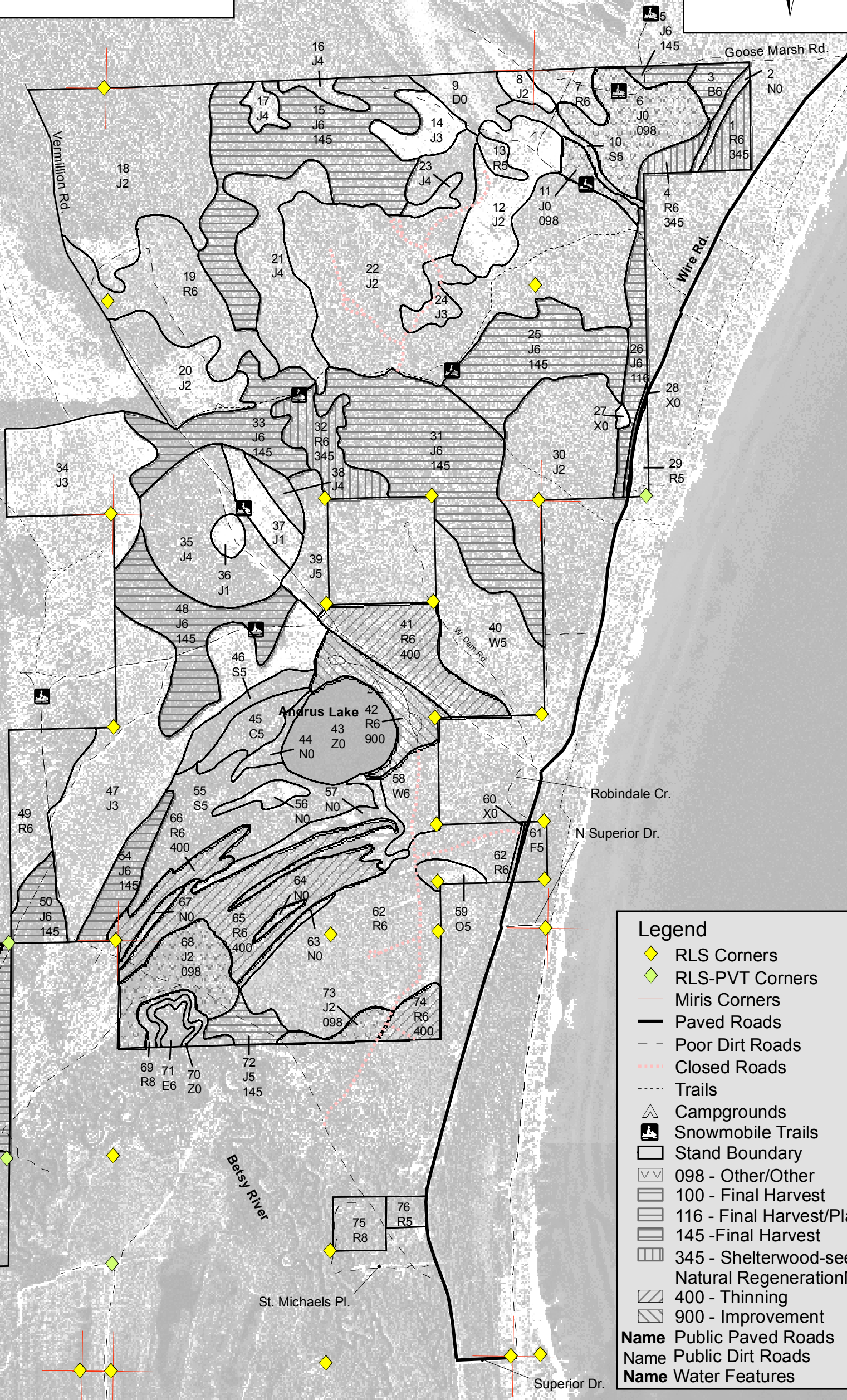
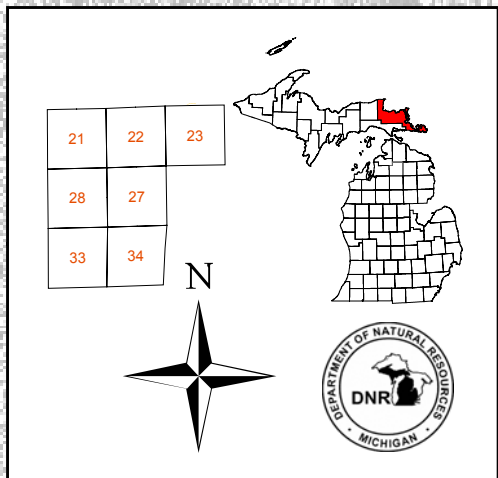
comnts Fmd : Small stand left untreated from previous entry. ORV trail through stand (illegal) and continuing onto private lands. Mixed hardwoods include: aspen, oak, paper birch. Evidence seen of cut RP - no record of cutting to be done here. Property line appears to be flagged in, in places, along the south boundary - possibly a private survey corner for our use? Otherwise, survey may be needed. 1997: stand 25/22

Wld : leave any white pine and oak and paper birch

Total Acres..... 241

Field Map

Compartment 67
 T50N, R6W, Sec. 21-23, 27, 28, 34
 County: Chippewa
 Unit: Newberry
 YOE: 2007
 Acres: 1,750 GIS Calculated
 Stand Examiner: Theresa Sysol
 Map Revised: 12/02/2005
 Map Phase: Post-review



Legend

- ◆ RLS Corners
- ◆ RLS-PVT Corners
- Miris Corners
- Paved Roads
- - - Poor Dirt Roads
- Closed Roads
- - - Trails
- ▲ Campgrounds
- ⊠ Snowmobile Trails
- Stand Boundary
- ▨ 098 - Other/Other
- ▨ 100 - Final Harvest
- ▨ 116 - Final Harvest/Planting
- ▨ 145 - Final Harvest
- ▨ 345 - Shelterwood-seed
- ▨ Natural Regeneration
- ▨ Mechanical
- ▨ 400 - Thinning
- ▨ 900 - Improvement
- Name Public Paved Roads
- Name Public Dirt Roads
- Name Water Features

