



**TRAVERSE CITY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 113 ENTRY YEAR: 2011

Compartment Acreage: 1266 County: Kalkaska

Stand Examiner: G.R.Grieve

Legal Description: T27N, R5W, Sec.14 & 15

Management Goals: The old RMU for this compartment called for no change in habitat types & to maintain the existing mixtures of forest cover types. The Key Value was Multiple Use.

Soil and Topography: Kalkaska, Emmet & Roselawn Sands. Generally rolling to level.

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

This compartment consists entirely of state ownership. The west side of section 15 is owned by Camp Gan Israel Inc.

Unique, Natural Features (include only non-site specific and non-sensitive information): *Compartment 113:*

This compartment falls within **LTA 3121** of sub-subsection VII.2.2. **LTA 3121** is characterized by large irregular ice-contact ridges, few kettle lakes, and well drained loamy sand. Circa 1800, northern hardwood forests of beech and sugar maple occurred on 73% of this LTA. Eastern hemlock and white pine probably occurred in low numbers throughout most of these hardwood forests, and these two conifers also co-dominated forests on the remainder of the LTA. Specifically, eastern hemlock, was co-dominant with either beech or white pine on about 19% of the LTA. In addition to its association with eastern hemlock, white pine also occurred in mixed forests with red pine on about 6% of the LTA. Northern hardwood forests remain the dominant cover type on this LTA, covering about 70% of its surface. However, most of these second growth forests lack the structural complexity of mature northern hardwoods and, in addition, the conifer component has been greatly reduced or eliminated. Conifer dominated forests, once common on this LTA, have been essentially eliminated, whereas aspen/white birch forests now cover about 19% of the area.

The eastern massasauga, a rattlesnake of Special Concern in Michigan, has been found in wetland habitat near this compartment.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): There are no historical features listed in the Archeological Features List.

Special Management Designations or Considerations: Visual management is important along the riding-hiking trail and ORV trails. Visual management techniques will be applied where necessary.

Watershed and Fisheries Considerations: None.

Wildlife Habitat Considerations: Landtype Association (LTA). LTA 3121 is characterized as large, irregular ice-contact ridges, few kettle All State Forest land in Compt. 113 is located in the Grayling Outwash Plain, within a single lakes, and well drained loamy sand soils. The topography is typically steep, broken, and irregular. Presettlement vegetation was dominated by northern hardwood forests of beech-maple with eastern hemlock and white pine co-dominate or interspersed as discrete stands. Wildfires were not

frequent or extensive in size. Present vegetation still favors northern hardwoods, but also includes the aspen-white birch association and several red pine plantations. Riparian areas are absent from this compartment.

Selective cutting in northern hardwood stands should be designed to improve species and structural diversity while temporarily opening the canopy, stimulation reproduction, and producing timber. Mast producing species should be retained as a significant component in these stands when in good health and form. Snags and morbid shade intolerant species should be retained to provide cavity nesting opportunities for wildlife and later contribute to the available coarse woody debris (CWD). Tops and culled logs remaining after the harvest should be scattered to enhance CWD for wildlife. Mature beech is particularly important as an intermittent producer of hard mast and a frequent host to nesting and denning wildlife. Species favored by this management approach include white-tailed deer, gray squirrel, American marten, pileated woodpecker, and raven. Aspen and mixed pine-aspen types provide opportunities to manage for species favoring early successional types. Scheduling final harvests to create a mosaic of aspen dominated stands of differing ages will encourage species diversity and favor white-tailed deer, red-tailed hawk, northern flicker, ruffed grouse, woodcock, and hog-nosed snake. Grassy openings dominated by native grasses, fruiting shrubs, and berries are rare in this compartment, but provide grazing and foraging opportunities for a variety of wildlife species and should be maintained to prevent their succession back to surrounding forest types.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Coldwater Shale. The Coldwater does not have an economic use. A gravel pit is located 2 miles to the south and there is potential on the uplands. This area is located four miles southeast of the Guelph (Niagaran) reef trend. The Compartment was leased at the 2008 lease auctions.

Vehicle Access: No new access needed at this time.

Survey Needs: No survey needs at this time.

Recreational Facilities and Opportunities: The MCCCT motorcycle trail, the Kalkaska ORV Trail & the Michigan Riding & Hiking Trail are all in this compartment.

Fire Protection: This compartment is protected by the Kalkaska DNR Field Office. VFD Fire Protection is from the Bear Lake Fire Dept. Access and travel time is very good, and Urban Interface is not a concern as both of the sections in this compartment are entirely state land.

Additional Compartment Information:

****** Cover type details, proposed treatments and stands designated as FDF are listed in the attached reports:**

- 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 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

PERE MARQUETTE STATE FOREST

TRAVERSE CITY FOREST MGT UNIT

KALKASKA COUNTY

COMPARTMENT: 113

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			103	84		20													207
Grass	11																		11
Jack Pine			2																2
Red Pine						12			193										205
Upland Brush	50																		50
Upland Hdws																		540	540
White Pine																		251	251
Total	61		105	84		32			193									791	1266

PERE MARQUETTE STATE FOREST

TRAVERSE CITY FOREST MGT UNIT

KALKASKA COUNTY

COMPARTMENT: 113

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	207																										207
G Grass					11																						11
J Jack Pine							2																				2
R Red Pine																205											205
U Upland Brush																								50			50
M Upland Hdws																									540		540
W White Pine																										251	251
Total	207				11		2								205									50	540	251	1266

PERE MARQUETTE STATE FOREST

TRAVERSE CITY FOREST MGT UNIT

KALKASKA COUNTY

COMPARTMENT: **113**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	12768 Cds	Hardwood	2540 Cds
Hardwood	1248 Mbf	Hardwood	364 Mbf
Softwood	4487 Cds	Softwood	932 Cds
Softwood	2727 Mbf	Softwood	415 Mbf
Sum TotVol	25205 Cds	Sum CutVol	5030 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	
1266		373	

TRAVERSE CITY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 113 Entry Year: 2011

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
3	R6	11	43	50	red pine	immature	thinning	1		stand with fdf potential
<p>comnts Fmd : 11/19/2008 Thin this time around. Hit stand hard, up to 45%. In ten years remove the rest & let it go to hardwoods. There is enough hardwood regen at this point that the stand could be taken now, but I believe the hardwoods would have better form if given ten more years. (Grieve) 2002 Thin every third row. Payless Ag cut in Spring 2002. (Sale 078-00-1) 14 acres row thinned,"Bear Cub Pine." (?)</p> <p>Wld : After logging, make sure the road right-of-way is clear so grasses and raspberries will remain. Stand 434 and that portion of stand 31 along the trail, do not use as a landing.</p>										
6	M6	151		61	northern hardwood	unevenaged	selection	1		
<p>comnts Fmd : 11/19/2008 Selection cut this time around. Some very scattered oak. Unless the oak is very large & should be harvested, leave and cut very hard around oak trees to encourage oak regen. This stand can grow very nice oak. (Grieve)</p> <p>Wld : WLD: 10-1-09, Retain mature oak and beech scattered throughout stand to enhance hard mast production and cavity nesting opportunities. Scatter tops and culled logs remaining from harvest to enhance CWD for wildlife. See WLD comments for Stand 402.</p>										
9	M6	38		61	northern hardwood	unevenaged	selection	1		
<p>comnts Fmd : 11/19/2008 Selection cut this time around. ORV Trail in stand. (Grieve)</p> <p>Wld : WLD: 10-1-09, Retain mature oak and beech scattered throughout stand to enhance hard mast production and cavity nesting opportunities. Scatter tops and culled logs remaining from harvest to enhance CWD for wildlife.</p>										
10	R6	1	43	50	red pine	immature	thinning	1		stand with fdf potential
<p>comnts Fmd : 11/19/2008 Thin this time around. Hit stand hard, up to 45%. In ten years remove the rest & let it go to hardwoods. There is enough hardwood regen at this point that the stand could be taken now, but I believe the hardwoods would have better form if given ten more years. This stand runs in to the compartment to the east (112). Those fee acres need to be treated with this stand & stand 3. (Grieve) 2002 Thin every third row. Payless Ag cut in Spring 2002. (Sale 078-00-1) 14 acres row thinned,"Bear Cub Pine." (?)</p> <p>Wld : After logging, make sure the road right-of-way is clear so grasses and raspberries will remain. Stand 434 and that portion of stand 31 along the trail, do not use as a landing.</p>										
11	M6	14		55	northern hardwood	unevenaged	selection	2		
<p>comnts Fmd : 11/19/2008 Not the best of stands. But readdy for treatment. (Grieve)</p> <p>Wld : WLD: 10-1-09, Retain mature oak and beech scattered throughout stand to enhance hard mast production and cavity nesting opportunities. Scatter tops and culled logs remaining from harvest to enhance CWD for wildlife.</p>										
13	R6	34	70	56	red pine	mature	final harvest	1	planting	
<p>comnts Fmd : 11/19/2008 Harvest & replant to red pine. (Grieve) 2001 This stand is apart of the old plantation that was stand 25. However, this part of the old plantation must of had a high success rate or it wasn't suitable for aspen and soft maple because this stand is all pine. Majority of the jack pine was harvested from this stand when the timber sale of stand 25 occurred. The old rows are still visible. 2001 Notes: Marked thinning (Little Red Pine Logs 042-00-01) harvested in May 2001. (?)</p>										
17	W6	22		51	white pine	unevenaged	thinning	1		
<p>comnts Fmd : 11/29/2008 Thinning, remove all hardwoods except yellow birch & white birch. Mark some white pine logs & poles in areas of high density pine. Some oak & beech in understory. (Grieve)</p>										
22	W9	74		52	white pine	unevenaged	thinning	1		
<p>comnts Fmd : 11/21/2008 Treat this time around. Remove red maple & other hardwoods & select white & red pine. White pine is very weeviled. (Grieve)</p>										
28	M6	8		54	northern hardwood	unevenaged	selection	2		
<p>comnts Fmd : 11/21/2008 Selection cut this time.. Poor quality stand. (Grieve)</p> <p>Wld : WLD: 10-1-09, Retain mature oak and beech scattered throughout stand to enhance hard mast production and cavity nesting opportunities. Scatter tops and culled logs remaining from harvest to enhance CWD for wildlife.</p>										
30	A5	20	41	50	aspen (upland)	mature	final harvest	1		
<p>comnts Fmd : 7/16/2009 Split from stand 12, Wildlife would like this part of old stand 12 clearcut because of heavier aspen. Bracken fern. Leave some younger clones of aspen & some clumps of red pine when found for retention. (Grieve)</p> <p>Wld : WLD: 10-1-09, Final harvest of stand should include 2-3, 0.25-0.5 acre islands of younger aspen and scattered mature oak and cherry for retention. Four to 6 rot resistant trees dispersed around the stand should be marked for creation of coarse woody debris (CWD). CWD trees should be log-sized or greater, cut at or above 4.5' from the ground, and the log left within 3' of its extended stump.</p>										

TRAVERSE CITY FOREST MGT UNIT

Proposed Treatments
With NO Limiting Factors

Compartment: 113 Entry Year: 2011

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDf Status
37	M6	6		58	northern hardwood	unevenaged		0	other - specify in remarks	

comnts Fmd : 11/24/2008 Lots of Iron Wood. Treat with herbicide to reduce IW saps. (Grieve) 1998 This stand was thinned with the stand to the north in compartment 11. Timber sale occurred in the summer of 1997. (Lemmien)

Wld : WLD: 10-6-09, Concur with FMFM.

Total Acres..... 379

**Proposed Treatments
With Limiting Factors**

Compartment: 113

Entry Year: 2011

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..... 0

Compartment 113
T27N, R05W, Sec. 14, 15
County: Kalkaska
Unit: Traverse City
YOE: 2011
Acres: 1,266 GIS Calculated
Stand Examiner: Gerald Grieve
Map Revised: 7/22/2009
Map Phase: Pre-review

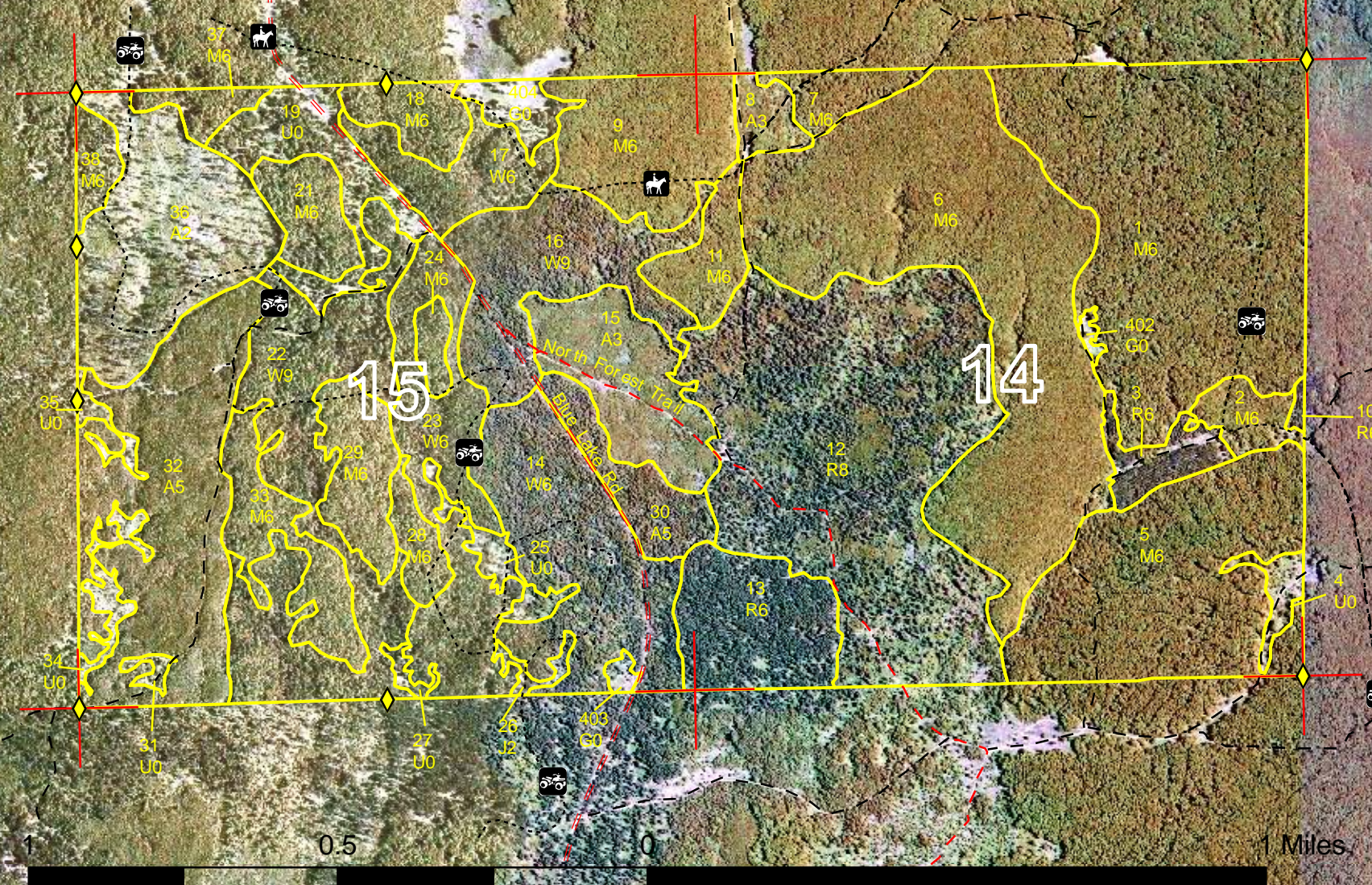

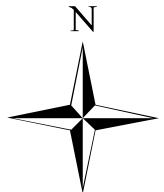
Stand Boundary Map

Legend

-  RIs Corners
-  Miris Corners
-  County Gravel Roads
-  County Poor Dirt Roads
-  Poor Dirt Roads
-  Trails
-  ORV Trails
-  Horse Trails
-  Stand Boundary



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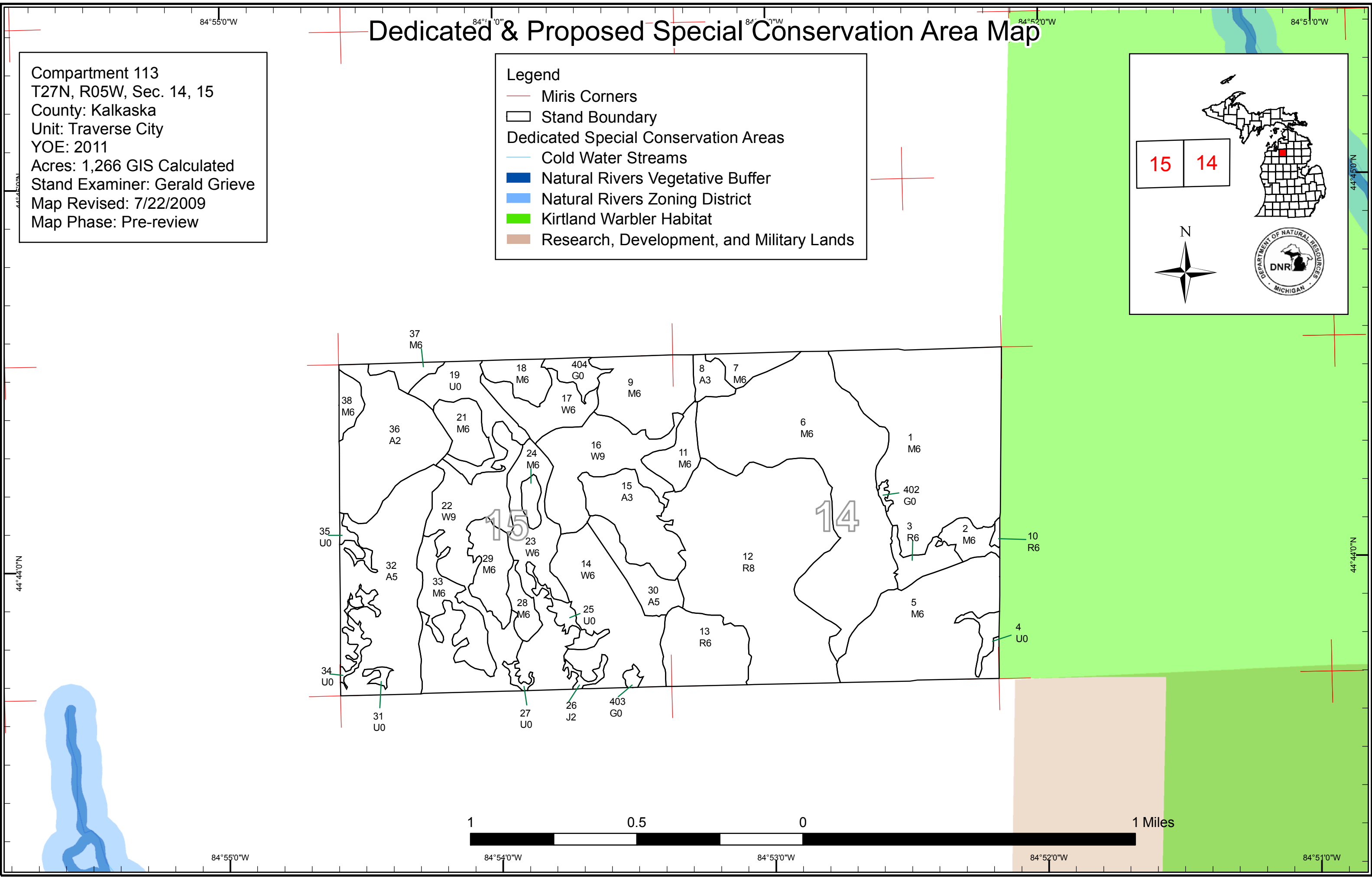
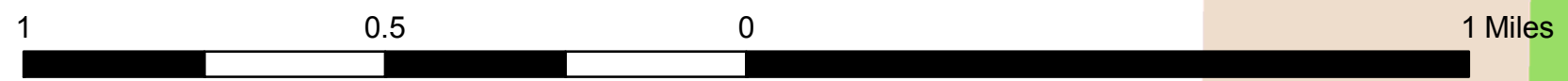
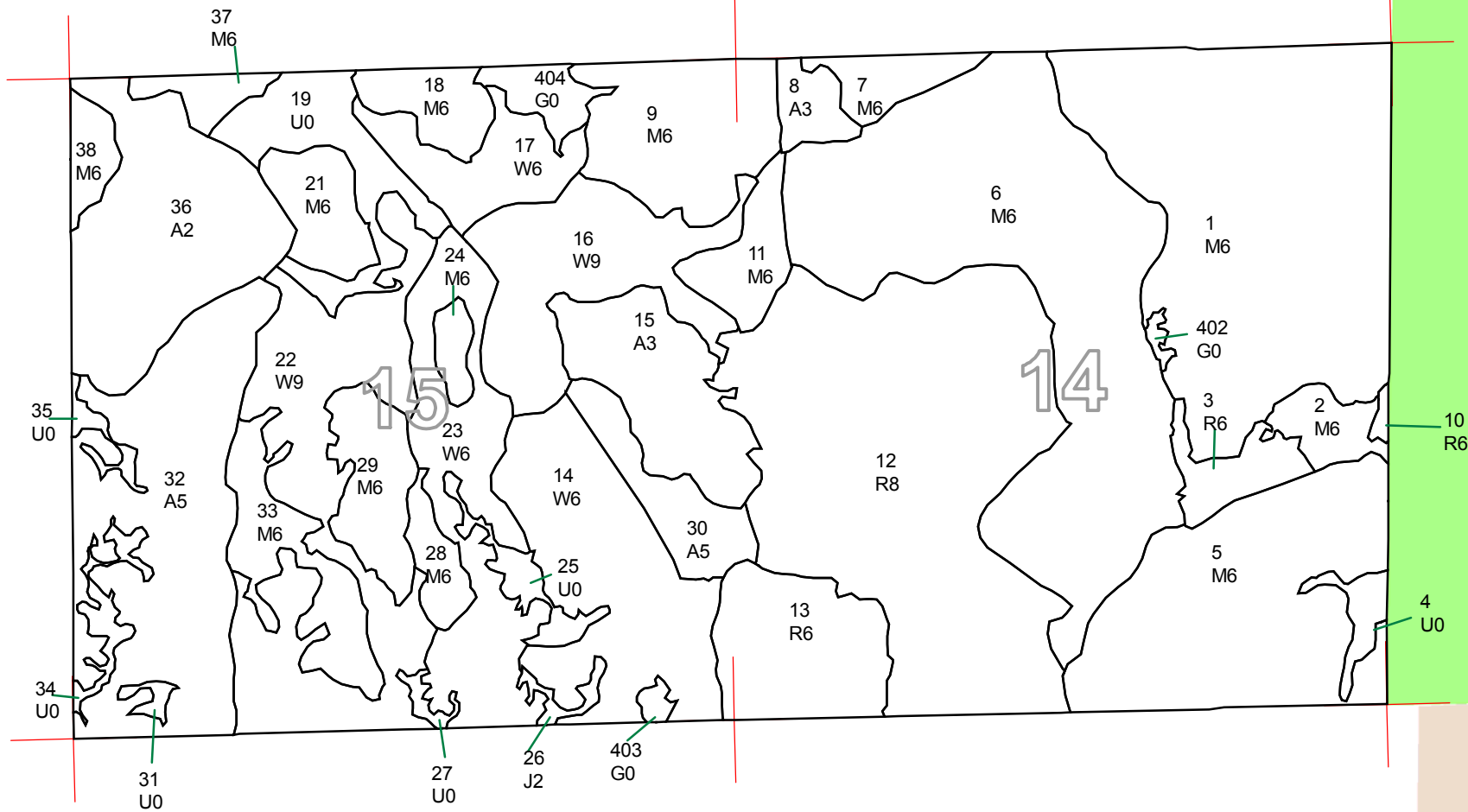


Dedicated & Proposed Special Conservation Area Map

Compartment 113
 T27N, R05W, Sec. 14, 15
 County: Kalkaska
 Unit: Traverse City
 YOE: 2011
 Acres: 1,266 GIS Calculated
 Stand Examiner: Gerald Grieve
 Map Revised: 7/22/2009
 Map Phase: Pre-review

- Legend**
- Miris Corners
 - Stand Boundary
 - Cold Water Streams
 - Natural Rivers Vegetative Buffer
 - Natural Rivers Zoning District
 - Kirtland Warbler Habitat
 - Research, Development, and Military Lands

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 DEPARTMENT OF NATURAL RESOURCES
 DNR
 MICHIGAN





DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

ERA = Ecological Reference Area
 HCVA = High Conservation Value Area
 SCA = Special Conservation Area

Conservation Area	Type	Description
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.