



**ESCANABA FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 35 ENTRY YEAR: 2010

Compartment Acreage: 872 County: Menominee

Last Revision: July 24, 2008

Stand Examiner: Kelly Standerfer FMFMD; Bill Rollo and Craig Albright, Wildlife Division

Legal Description: T37N, R25W Sec. 34, 35 & 36

Management Goals: This year of entry (YOE), management goals are focused on managing for a mixture of both vegetative and wildlife diversity. This compartment contains a wide variety of cover types ranging from upland aspen and maple types to lowland cedar, swamp hardwood, mixed conifer swamp and bog types. Treatments this YOE are focused on aspen, maple & red pine stands. Aspen types to be treated will be final harvested with reserves to maintain these stands with an aspen management objective. Two maple stands will be cut fairly heavy with a shelterwood harvest to manage for a mix of upland spruce and fir along with maple. Several red pine stands are slated for thinning to increase growing space and overall stand health. One red pine stand has fully regenerated to a mix of white and red pine and this stand is having an overstory removal with a few stems/acre being left for seed and structural diversity. One small spruce stand will be final harvested with a few seed trees being left to regenerate back to a mix of spruce and pine. Overall treatments for this YOE are focused on maintaining stand health and vigor as well as maintaining or improving overall species diversity throughout the area. Aspen stands appear to be in relatively good health so they should regenerate nicely. Maple stands to be treated will likely regenerate to a mix of upland spruce and fir along with some maple and pine.

Soil and Topography: Terrain is level to rolling. The majority of the upland consists of Deford-Woinola-Rousseau complexes. Uplands also include Onaway fine sandy loam, Rousseau fine sand and Woinola fine sand. Lowland areas consist of Deford mucky fine sand, Burleigh mucky fine sand and Tawas-Deford complexes.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment lies towards the north edge of a large state ownership block that is about 25 miles long by 7 miles wide near the Lake Michigan shoreline. Land use on state owned lands include hunting, camping, ATV use as well as a mix of other opportunities. This compartment has considerable private in-holdings, most of which are used for deer hunting, general recreation, and timber management.

Unique, Natural Features: The Big Cedar river flows through this compartment. Also stand 33, 68, and 69 are in the far south end of the 7 Mile Marsh which is a large wetland complex consisting of lowland conifer and bogs.

Archeological, Historical, and Cultural Features: Previous notes mentioned that the OX bow on the Cedar river at the south end of stand 63 was created from a log jam.

Special Management Designations or Considerations: A Special Conservation Area has been identified along the Cedar river as well as on a feeder creek. This area will have minimal activity and will primarily be left for natural succession to take place.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations: The Big Cedar River, which flows through the west side of the compartment, is the main habitat feature. Several major log jams occur in the river along with abrupt river turns and flood plains that have trapped vernal pools. This riparian corridor is of high value to wildlife, including nesting Canada geese, wood ducks, and amphibians. The river has been buffered with a narrow, unmanaged corridor of stands that have been designated a “Special Conservation Area.” Lack of treatments here will promote large trees, standing snags, cavities, and dead woody debris for wildlife habitat near the river. The west side of the compartment is early successional forest dominated by aspen and grass openings. Several aspen stands will be harvested and regenerated to provide a continued habitat supply for those species that utilize it (including many popular game species such as deer, bear, grouse, and hare). Grass openings will be buffered so that aspen sprouts do not encroach. The center of the compartment is largely red pine and white pine forest. Thinnings and regeneration cuts will occur here. The east side of the compartment is centered on the 7-Mile Marsh Road and is largely cedar swamp, hemlock, and bog. Several prescriptions were made for harvesting in the hemlock stands, but a decision was made to hold these stands without treatment due to their modest age, lack of regeneration success, and their current habitat value to wildlife.

Mineral Resource and Development Concerns and/or Restrictions:

Vehicle Access: The western portion of this compartment (west of the river) has poor access and is only reachable via private property. Private landowners have been contacted and both seem open to the idea of allowing access for timber sales. The areas to the east of the Cedar River have good access from County Road 551 and the 7 Mile Marsh Road.

Survey Needs: Survey corners may be needed for treatments this YOY. Several corners will likely be needed in all sections of this compartment..

Recreational Facilities and Opportunities: No developed facilities are within this compartment, however this compartment provides many recreational opportunities including hunting, camping and hiking. The US Fish & Wildlife Service has used Stand 402 in the past when doing lamprey control on the Cedar River.

Fire Protection: Access to the west of the river is limited by private property, however roads are in good shape coming off of private land. Fire access to the east of the river is good with the exception of the land in the south portion of section 36. There are no significant control problems foreseen due to the lack of explosive fuels and an abundance of natural fuel breaks, such as low wet stands of timber and lowland brush. Low wet areas will impede fire suppression as well as fire spread.

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

ESCANABA RIVER STATE FOREST

ESCANABA FOREST MGT UNIT

MENOMINEE COUNTY

COMPARTMENT: 35

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		23	16	87	15	54													195
Black Spruce													3						3
Cedar											11	25		14	45			19	114
Grass	23																		23
Hemlock												9		12	30			13	64
Lowlnd Poplr		9		5		43													57
Mx Swmp Cnfr		23		12															35
Non Stocked	4																		4
Red Pine								14	36			14							64
Spruce Fir			7	6															13
Swamp Hrdwds									10		10				26			36	82
Treed Bog	54																		54
Upland Hdwds									14	8								50	72
Water	14																		14
White Pine			17							5		38						18	78
Total	95	55	40	110	15	97		14	60	13	21	86	3	26	101			136	872

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

ESCANABA RIVER STATE FOREST

ESCANABA FOREST MGT UNIT

MENOMINEE COUNTY

COMPARTMENT: 35

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	195																										195
S Black Spruce		3																									3
C Cedar				114																							114
G Grass					23																						23
H Hemlock						64																					64
P Lowlnd Poplr										57																	57
Q Mx Swmp Cnfr												35															35
X Non Stocked													4														4
R Red Pine															50										14	64	
F Spruce Fir																			13								13
E Swamp Hrdwds																			82								82
D Treed Bog																						54					54
M Upland Hdwds																								72			72
Z Water																									14		14
W White Pine																										78	78
Total	195	3		114	23	64				57		35	4		50			13	82			54		72	14	92	872

ESCANABA RIVER STATE FOREST

ESCANABA FOREST MGT UNIT

MENOMINEE COUNTY

COMPARTMENT: **35**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	4840 Cds	Hardwood	1702 Cds
Hardwood	277 Mbf	Hardwood	6 Mbf
Softwood	6461 Cds	Softwood	515 Cds
Softwood	1114 Mbf	Softwood	266 Mbf
Sum TotVol	14083 Cds	Sum CutVol	2761 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	
872		174	

ESCANABA FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 35

Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
7	R6	14	60	63	red pine	immature	thinning	1		
<p>comnts Fmd : Decided to hold last YOE. Thin this YOE to ~80-90 BA. OK to remove some of the nicer poles but overall try to get good spacing & remove co-dominants or suppressed trees. Cut all Spruce and individual mark white pine and red pine. Probably could do a regen harvest in 10-20yrs. Some areas are thicker than others and some arent quite as thick.</p> <p>Wld : Concur with FMFMD.</p>										
8	S6	3	111	35	black spruce-swamp	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : Mixed W, Fs, T, Fb & mxhd hdwd. Final harvest this YOE but mark a few seed trees of T, S & W for seed & retention. Some has advanced F & Q regen. OK regen post harvest is any mix of F, Q, W & M, Stand lines not exact, may vary slightly.</p> <p>Wld : Concur with FMFMD.</p>										
11	R6	22	68	50	red pine	immature	thinning	1		
<p>comnts Fmd : Thinned last YOE..could use another light thin. Thin to 80-90 BA. Cut all spruce, OK to poke a few regen holes in and take some of the nicer poles not but overall this is a light thin to increase growth and quality. Some areas wont need much cut and some will need quite a bit removed.</p> <p>Wld : Concur with FMFMD.</p>										
13	R6	14	68	50	red pine	immature	thinning	1		
<p>comnts Fmd : North end has some thinner areas with smaller diameter trees and there are a few lower areas with W3 in stand that wont need marked. Thin to 80-120 BA. Maple looks like it might try to take over some of this stand. Probably do a regen cut in 10-20 and burn to hopefully keep in pine.</p> <p>Wld : Concur with FMFMD.</p>										
25	A6	40	45	70	aspen (upland)	mature	final harvest	1	natural regeneration	
<p>comnts Fmd : A6 over F3 for the most part. Save ~3% (~1.5Ac) of stand acreage @ north end of the stand by the fingers of stand 58. 4" and up on the rest to fully regenerate to aspen, maple and fir. As per pre-review wildlife division wants to buffer the grass openings 400 and 401. Buffer areas along grass edges will be retention along with a small portion along the private to the north. Remainder of the stand can be final harvested except for cedar and hemlock.</p> <p>Wld : As discussed in pre-review, a buffer along Std 401 and Std. 400 will be placed to discourage aspen encroachment into this grassy opening. Retention will be along these grassy openings and the north edge. Concur with FMFMD.</p>										
30	M6	7		65	northern hardwood	unevenaged	selection	1	natural regeneration	
<p>comnts Fmd : Save most beech, all pine & some cherry. Mark from all species, all size classes to 80-90BA but favor saving the rare species. West edge along A type may vary slightly. Last thinned in 1982-1983.</p> <p>Wld : Concur with FMFMD.</p>										
31	M6	14	71	65	northern hardwood	immature	selection	1	natural regeneration	
<p>comnts Fmd : South end of stand on high ridge, fairly steep but cuttable for the most part. Some areas thicker and some not as thick. Mixed F and ironwood regen. Mark to 70-90 BA. Remove all aspen.</p> <p>Wld : Concur with FMFMD.</p>										
34	M6	13		63	northern hardwood	unevenaged	selection	1	natural regeneration	
<p>comnts Fmd : M6, H7, W-R-7. C4 mixed stand. Mark all species to 90-120 BA saving a variety of diameters and species but overall try to do a thin from below but it is OK to cut some of all species and diameters. West side of the road will be treated similar to stand 32 where most of the overstory can be cut except for the thicker maple and hemlock at the southwest end of the stand. This area will be marked to 70-90 BA. As per-pre review this stand will be treated but in areas with red pine it can be cut a bit harder to try to regenerate some red pine. Leave buffer along the bog area to hinder ORV traffic and try to close illegal ORV trail that goes out into stand 66. Cut no Cedar or Hemlock. MO for stand is mixed maple and pine, pine areas can be cut a bit harder. OK to cut some trees on west side of road but leave enough to hinder ATV use, scatter brush on west side of road to help minimize ORV traffic off of road.</p> <p>Wld : No cut hemlock or cedar. Leave a buffer north of the road near the marsh to discourage illegal ATV use. Check the hawk nest found in Std 66. If this nest is active, it may effect the sale boundary of this stand. Concur with FMFMD.</p>										
55	R9	14	101	55	white pine	immature	seed tree	1	natural regeneration	
<p>comnts Fmd : some pine has blown over. SW end more R9 over W3/R1. NE end R9 over W2/M2/R1. Rest is W7-W8 over W2/M2/R1. Final harvest now to release understory. Mark scattered to clumpy groups of pine to leave for good. Long term MO of mixed W,R,F & M. Pretty much an overstory removal/seed tree.</p> <p>Wld : Concur with FMFMD.</p>										

ESCANABA FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 35

Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status	
65	A6	11	45	73	aspen (upland)	immature	final harvest	1	natural regeneration		
<p>comnts Fmd : almost 2 aged...east edge on ridge is a bit younger but merchantable..west edge of stand is mature ot overmature. Small grass opening @ south end of the stand..Ok to let fill in. OK regen is mix of A, F & Pine. Cut all trees over 4" dbh. Retention not needed as this is a small stand and the stand to the east is only being thinned, goal here is maximum stem density.</p> <p>Wld : Concur with FMFMD.</p>											
70	A6	3	40	70	aspen (upland)	mature	final harvest	1	natural regeneration		
<p>comnts Fmd : Cut all but pine. Add to Big Cedar Bank Sale (001-08-01) Adjacent A type. Only 3 acres so add as a contract suppliment and use bid prices for species.</p> <p>Wld : Concur with FMFMD.</p>											
Total Acres.....		155									

ESCANABA FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 35

Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
36	M6	8	79	60	northern hardwood	mature	selection	1	natural regeneration	

TREATMENT LIMITING FACTORS: Adjacent landowner denies access

comnts Fmd : cut all but H & C and save some beech. OK to mark some poor quality and suppressed H & C, however most should be saved. Long term MO of mixed Q, H, C, B & M. access will be tricky, best is from private to the south. Haven't contacted private landowner to see about access. As per pre-review wildlife wants to save all cedar and hemlock along with most of the beech. Some can be cut but most should be saved. Also wildlife wants to assist when setting up this stand.

Wld : May be factor limited due to access problems. These stands are a mix of spruce, maple, beech, and hemlock. Most of the beech trees have bear claw marks on them, indicating that bears have foraged on beechnuts every year at this location. The wildlife technician will help mark the retention within this stand. Concur with FMFMD.

37	M6	11		63	northern hardwood	immature	selection	1		
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TREATMENT LIMITING FACTORS: Adjacent landowner denies access

comnts Fmd : mixed maple, beech, bass, some popple, Birch & Beech. Save hemlock, most beech & some birch. Mark all species from all diameters down to 70-90BA. Long term MO of mixed M & F. stand factor limited due to access, best is from the south but I haven't contacted the landowner for permission. As per pre-review wildlife wants to save all cedar and hemlock along with most of the beech. Some can be cut but most should be saved. Also wildlife wants to assist when setting up this stand.

Wld : May be factor limited due to access problems. These stands are a mix of spruce, maple, beech, and hemlock. Most of the beech trees have bear claw marks on them, indicating that bears have foraged on beechnuts every year at this location. The wildlife technician will help mark the retention within this stand. Concur with FMFMD.

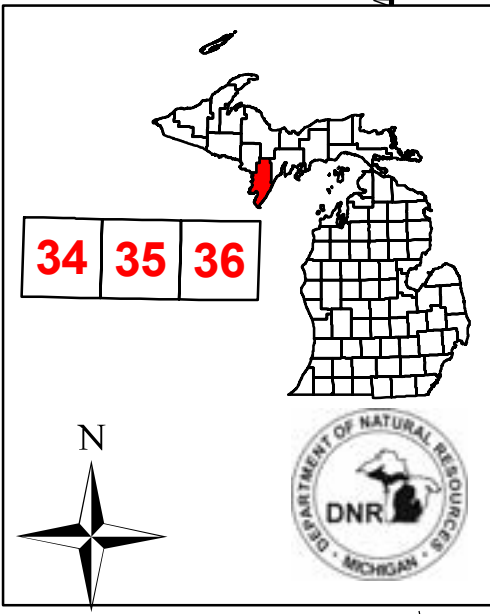
Total Acres..... 19

Compartment 35
 T37N, R25W, Sec. 34-36
 County: Menominee
 Unit: Escanaba
 YOE: 2010
 Acres: 872 GIS Calculated
 Stand Examiner: Kelly Standerfer
 Map Revised: 8/12/2008
 Map Phase: Pre-Review

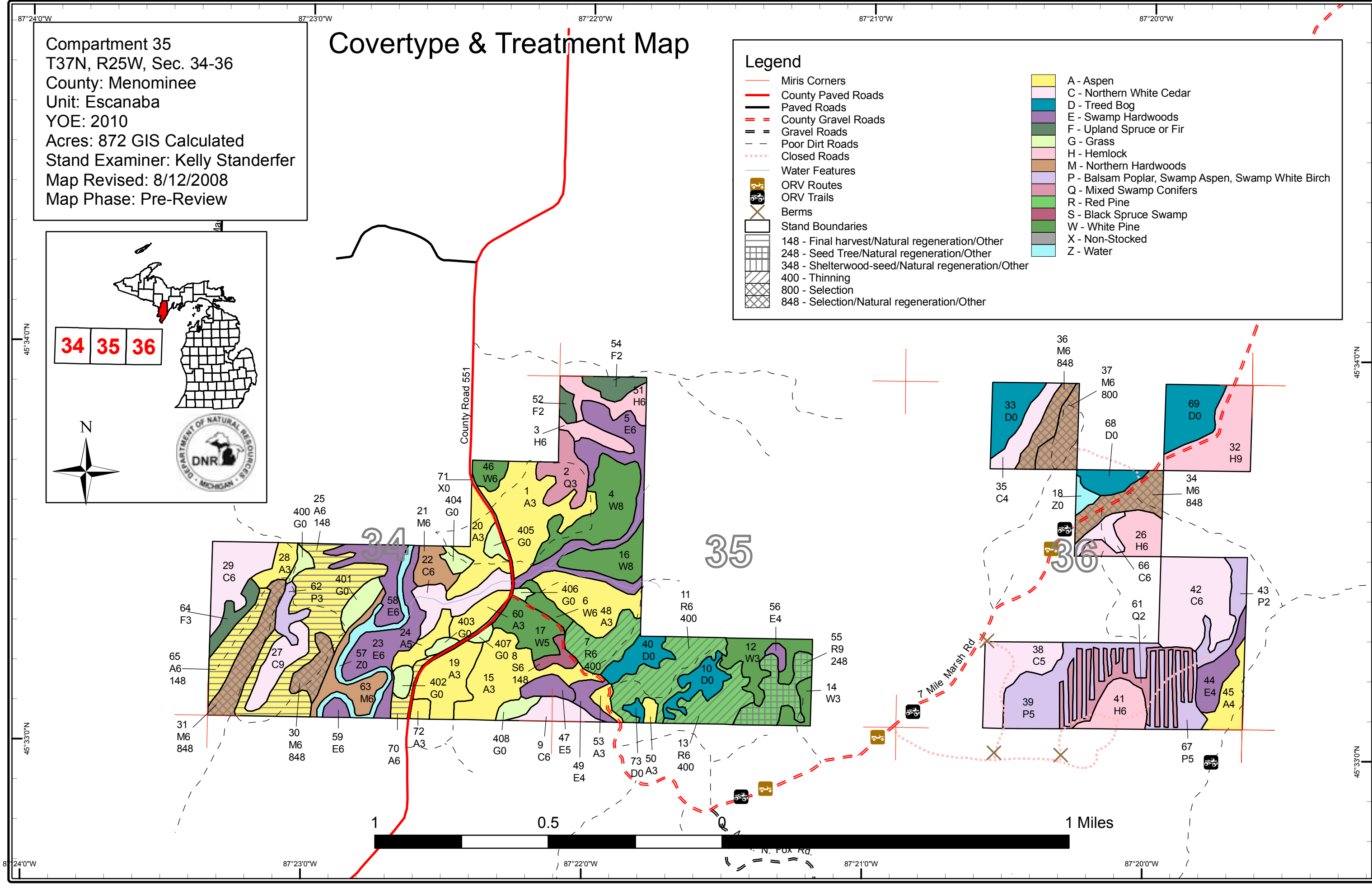
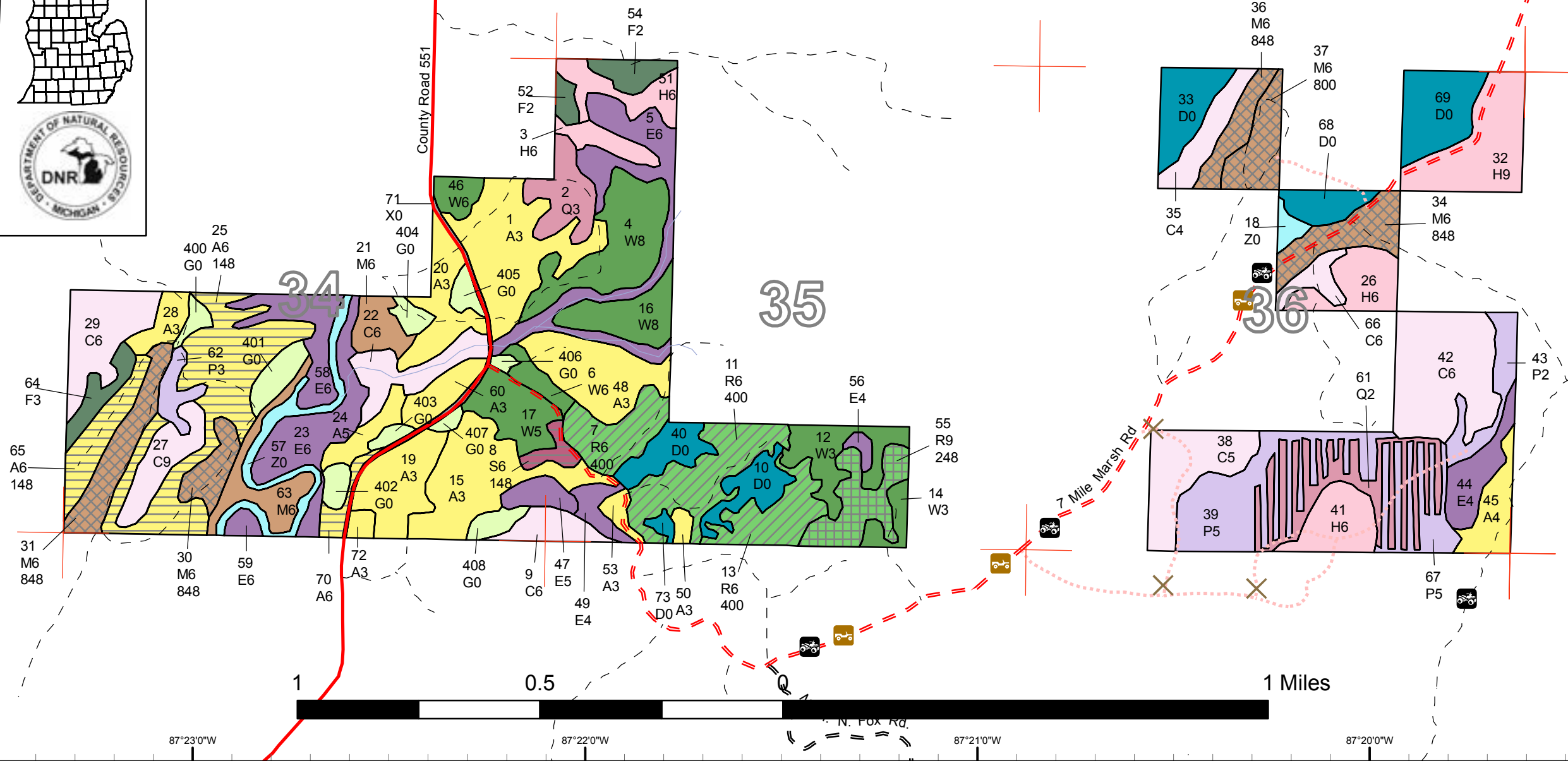
Covertypes & Treatment Map

Legend

	Miris Corners		A - Aspen
	County Paved Roads		C - Northern White Cedar
	Paved Roads		D - Treed Bog
	County Gravel Roads		E - Swamp Hardwoods
	Gravel Roads		F - Upland Spruce or Fir
	Poor Dirt Roads		G - Grass
	Closed Roads		H - Hemlock
	Water Features		M - Northern Hardwoods
	ORV Routes		P - Balsam Poplar, Swamp Aspen, Swamp White Birch
	ORV Trails		Q - Mixed Swamp Conifers
	Berms		R - Red Pine
	Stand Boundaries		S - Black Spruce Swamp
	148 - Final harvest/Natural regeneration/Other		W - White Pine
	248 - Seed Tree/Natural regeneration/Other		X - Non-Stocked
	348 - Shelterwood-seed/Natural regeneration/Other		Z - Water
	400 - Thinning		
	800 - Selection		
	848 - Selection/Natural regeneration/Other		















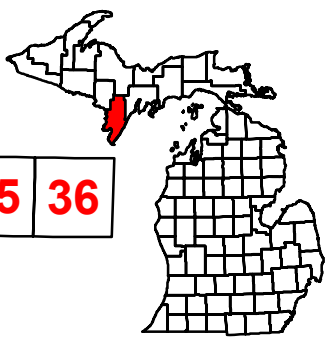
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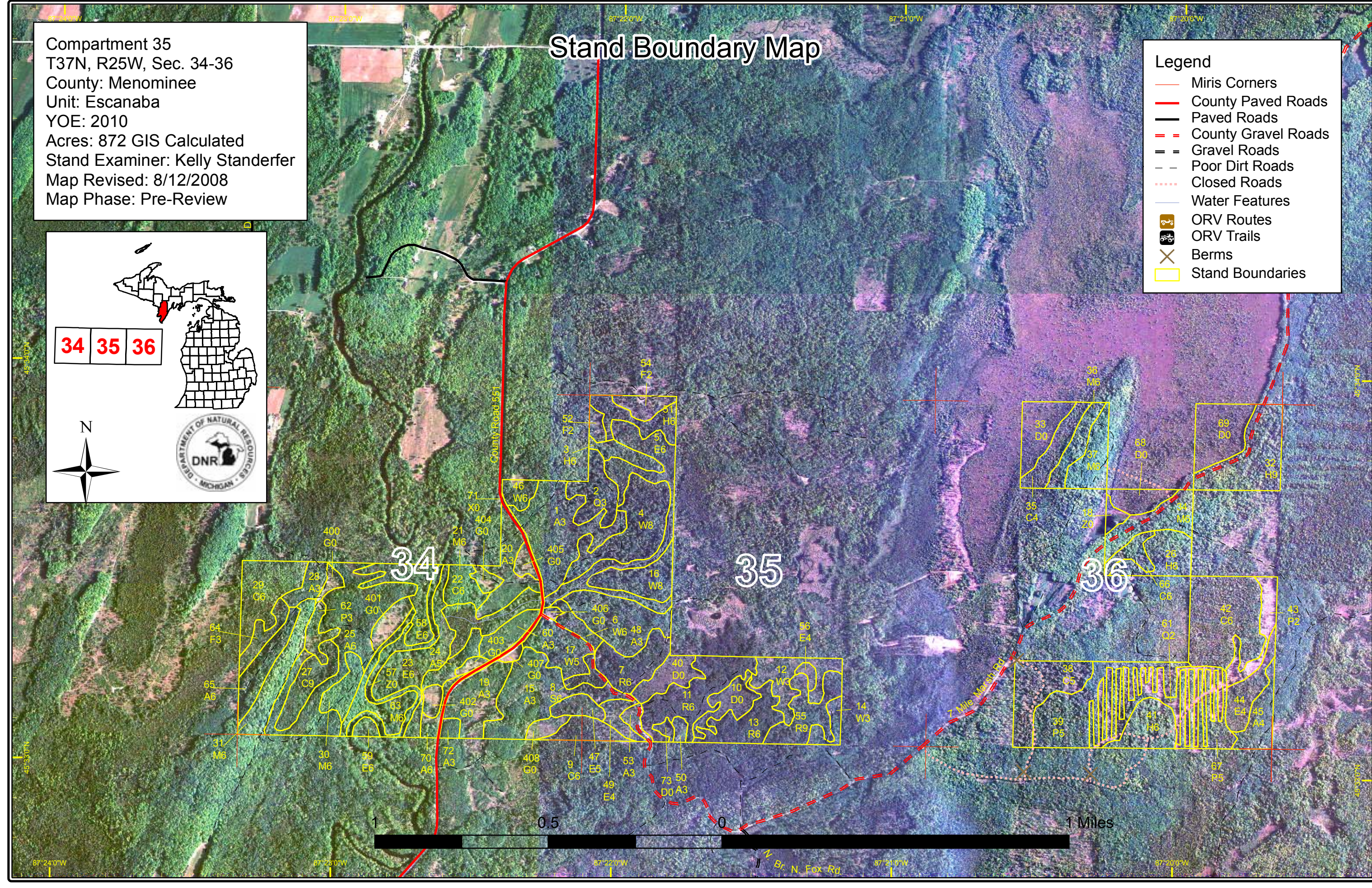
Compartment 35
 T37N, R25W, Sec. 34-36
 County: Menominee
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 Map Revised: 8/12/2008
 Map Phase: Pre-Review

Stand Boundary Map

- Legend**
-  Miris Corners
 -  County Paved Roads
 -  Paved Roads
 -  County Gravel Roads
 -  Gravel Roads
 -  Poor Dirt Roads
 -  Closed Roads
 -  Water Features
 -  ORV Routes
 -  ORV Trails
 -  Berms
 -  Stand Boundaries








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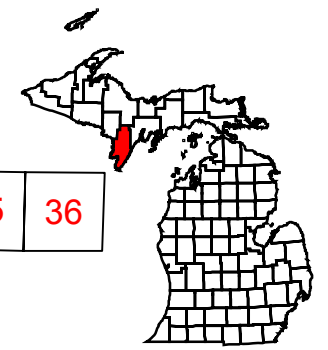




Dedicated & Proposed Special Conservation Area Map

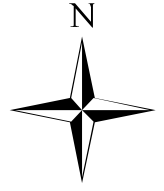

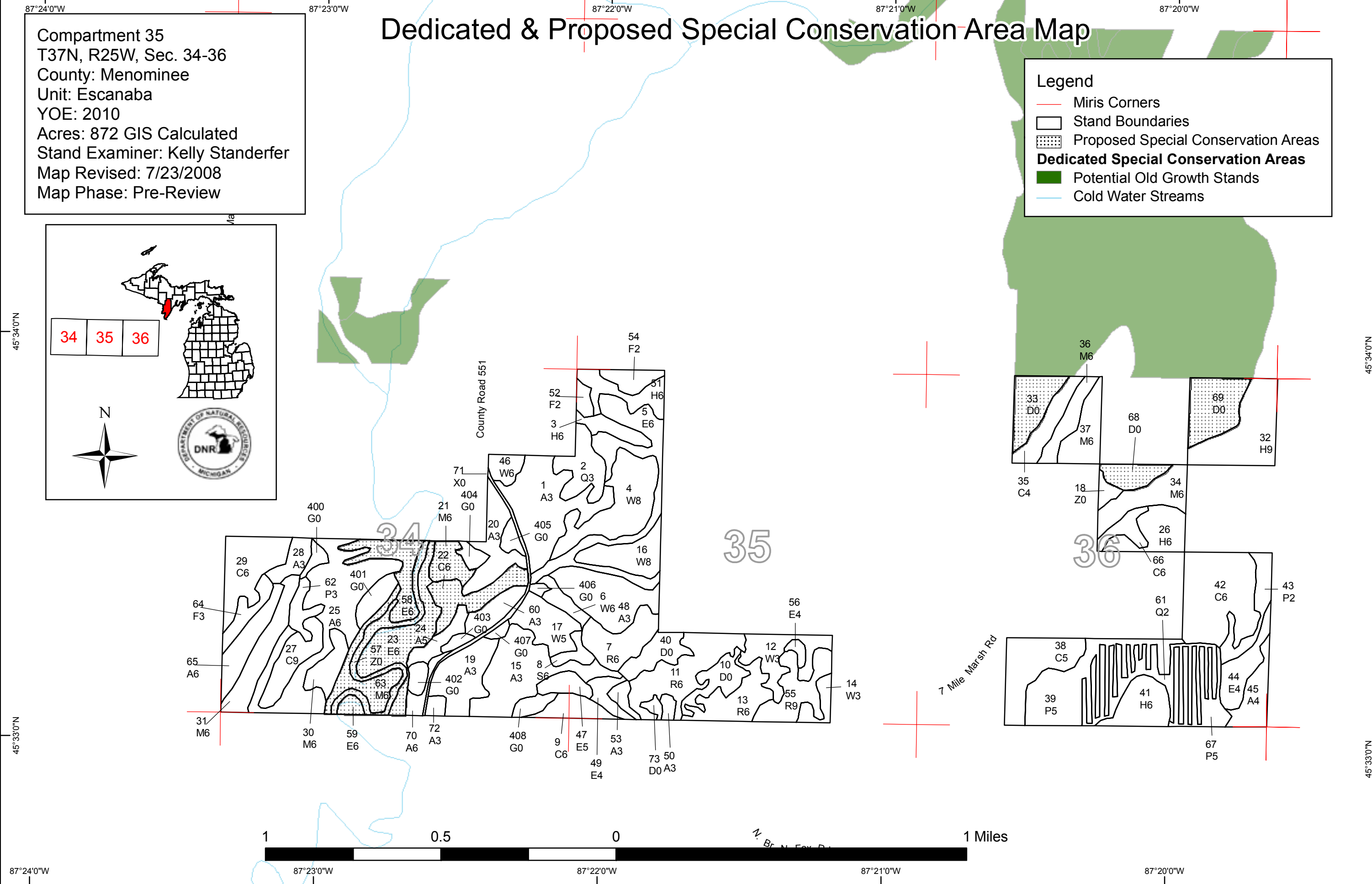
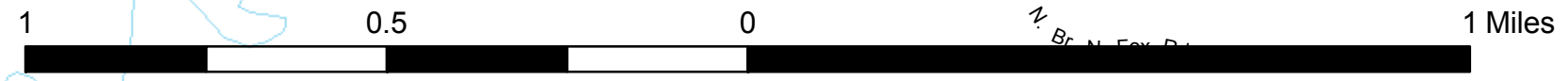
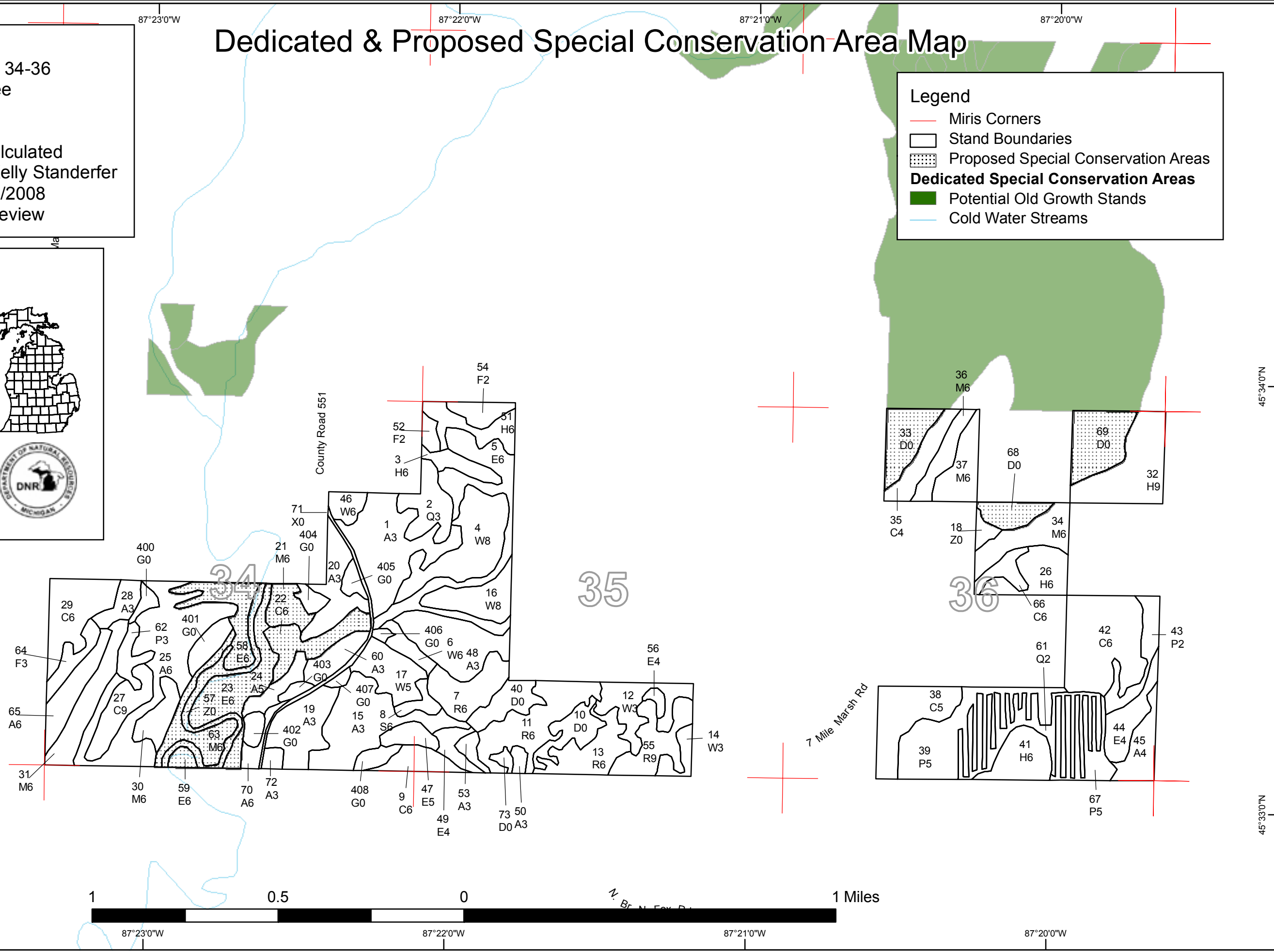
Compartment 35
 T37N, R25W, Sec. 34-36
 County: Menominee
 Unit: Escanaba
 YOE: 2010
 Acres: 872 GIS Calculated
 Stand Examiner: Kelly Standerfer
 Map Revised: 7/23/2008
 Map Phase: Pre-Review

Legend

-  Miris Corners
-  Stand Boundaries
-  Proposed Special Conservation Areas
- Dedicated Special Conservation Areas**
-  Potential Old Growth Stands
-  Cold Water Streams



34 35 36



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
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Potential Old Growth Areas	This category contains stands were identified for a broad range of reasons and were coded in the OI database as stand condition 8 as potential old growth (POG). Approximately 310,000 acres have been identified through the Operations Inventory (OI)/Compartment Review process. For stands in Year of Entry 2008 and forward, potential old growth is managed for the identified objective until it is: 1) vetted through the Biodiversity Conservation Planning Process (BCPP) and given a specific designation and objective (as an ERA, HCVA, or other type of SCA) and is released from the potential old growth designation; or 2) it is released from the potential old growth designation via the Compartment Review process.