



CRYSTAL FALLS FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT #104 - ENTRY YEAR: 2010
Compartment Acreage: 1596 - County: Dickinson

Revision Date: February 1, 2008

Stand Examiner: Otto Jacob

Legal Description: T40N, R29W, Sections 21, 22, 27, 28, 33, 34

Management Goals: On the sites where pine is regenerating, encourage the pine succession. Harvest aspen for age distribution. Manage hardwood sites for oak and for quality hardwood. Creek corridors should be protected for water quality and for wildlife habitat.

Soil and Topography: Sandy soils are coarser near pine creek and on the south portion of the compartment. Finer hardwood soils are on the bluffs in the north part of the compartment.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Small, private ownership of scattered forties. Some farmlands are found south of the compartment.

Unique, Natural Features: Pine Creek and Fern Creek valleys are cold water habitats.

Archeological, Historical, and Cultural Features: None known.

Special Management Designations or Considerations: Protection of the streams from sedimentation.

Watershed and Fisheries Considerations: Protect stream corridors by moving towards long rotation conifer management adjacent to streams.

Wildlife Habitat Considerations: Protect riparian corridor and encourage white pine succession. Wood turtle occurrences to the north and east of the compartment. Loon, osprey, eagle, and great blue heron rookery to northeast. Loon to north and west. Eagle to west. Walking fern, Laurentian fragile fern, slender cliff-brake, goblin moonwort, and blunt-lobed woodsia to the west. Purple cliff-brake and purple clematis to south. Marsh grass of parnassus, pine drops, and purple clematis to southwest. Potential for goshawk, red-shouldered hawk, great blue heron rookery, eagle, osprey, loon, and black-backed woodpecker. Potential for wood turtle along pond. Potential for moose and gray wolf. Potential for marsh grass-of-parnassus in conifer swamp. Potential for walking fern, Laurentian fragile fern, slender cliff-brake, goblin moonwort, purple cliff brake, purple clematis, and blunt-lobed woodsia associated with exposed bedrock, boulders or rock outcropping. Potential for purple clematis and pine drops in northern hardwoods with mature conifer component.

Mineral, Oil and Gas Considerations: Surface sediments consist of coarse-textured till and sometimes thin to discontinuous glacial till over bedrock. The glacial drift thickness varies between 50 and 100 feet. The Precambrian Archean granite/gneiss and Chocoday Group outcrop beneath the glacial drift. There is not a current economic use for these rocks, but the granite/gneiss has building/dimension stone potential. The abandoned Norway iron mines are located just to the south. Part of this compartment was previously leased for metallic exploration and potential may still exist. A gravel pit is located in Section 29 and there should be some potential. There is no economic oil and gas production in the UP.

Vehicle Access: A good county road accesses the south part of the compartment. The north part of the compartment is on a large bluff and access requires four wheel drive.

Survey Needs: A survey request has been submitted and the survey is nearly complete in Section 34.

Recreational Facilities and Opportunities: Hunting and fishing.

Fire Protection: Good access to the south part of the compartment.

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

COPPER COUNTRY STATE FOREST

CRYSTAL FALLS FOREST MGT UNIT

DICKINSON COUNTY

COMPARTMENT: 104

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		130	15	217				104	29	32	12								539
Grass	31																		31
Lowlnd Brush									42										42
Marsh	94																		94
Mx Swmp Cnfr											89	79							168
Non Stocked	13																		13
Oak											61								61
Red Pine									4										4
Swamp Hrdwds												121							121
Upland Hdwds																		491	491
Water	10																		10
White Pine									22										22
Total	148	130	15	217				104	97	32	162	200						491	1596

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Individual Compartment Report

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COMPARTMENT: 104

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	539																										539
G Grass					31																						31
L Lowlnd Brush									42																		42
N Marsh											94																94
Q Mx Swmp Cnfr												168															168
X Non Stocked													13														13
O Oak														61													61
R Red Pine																4											4
E Swamp Hrdwds																				121							121
M Upland Hdwds																								491		491	
Z Water																									10	10	
W White Pine																										22	22
Total	539				31				42		94	168	13	61		4				121				491	10	22	1596

COPPER COUNTRY STATE FOREST

CRYSTAL FALLS FOREST MGT UNIT

DICKINSON COUNTY

COMPARTMENT: **104**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	11988 Cds	Hardwood	1243 Cds
Hardwood	1047 Mbf	Hardwood	106 Mbf
Softwood	1777 Cds	Softwood	24 Cds
Softwood	100 Mbf	Sum CutVol	1479 Cds
Sum TotVol	16059 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	
1596		117	

CRYSTAL FALLS FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 104 **Entry Year: 2010**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status	
6	A6	16	81	60	aspen (upland)	immature	final harvest	1			
comnts Fmd : MUCH YOUNG SPRUCE/ FIR IN STAND, Retain transition fo lowlands.											
43	A6	10	81	65	aspen (upland)	mature	final harvest	1			
comnts Fmd : Needs survey. Request sent. Save pine and cherry.											
48	A6	24	67	64	aspen (upland)	mature	final harvest	1			
comnts Fmd : The south end has some hardwood that may be excluded from a sale. Survey requested.											
403	G0	20		54	grass	nonstocked		0	opening maintenance		
Wld : TREAT OPENING											
Total Acres.....		70									

CRYSTAL FALLS FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 104 **Entry Year: 2010**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
30	O6	11	88	60	oak	mature	thinning	2		prescribed for fdf treatment

TREATMENT LIMITING FACTORS: Adjacent landowner denies access

comnts Fmd : Rough terrain. Do not cut. Leave for wildlife. We tried putting up a sale in this area and terrain and private owner blocked access.

31	O6	50	88	60	oak	mature	thinning	2		prescribed for fdf treatment
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TREATMENT LIMITING FACTORS: Adjacent landowner denies access

comnts Fmd : Rough terrain. This stand was marked to sell in 1997, but terrain and access limitations prevented operations.

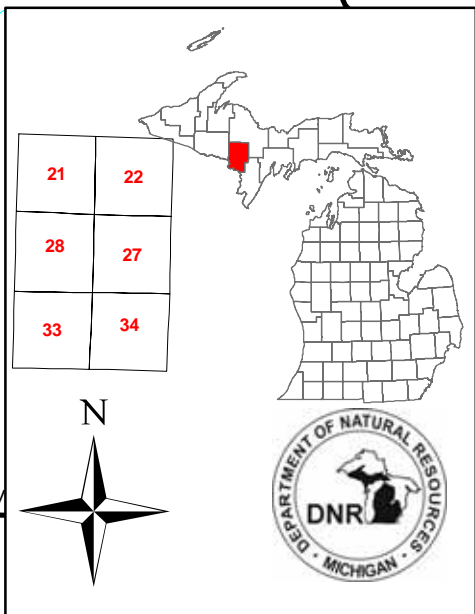
34	A6	6	81	58	aspen (upland)	mature	final harvest	3		
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TREATMENT LIMITING FACTORS: Too steep

Total Acres..... 67

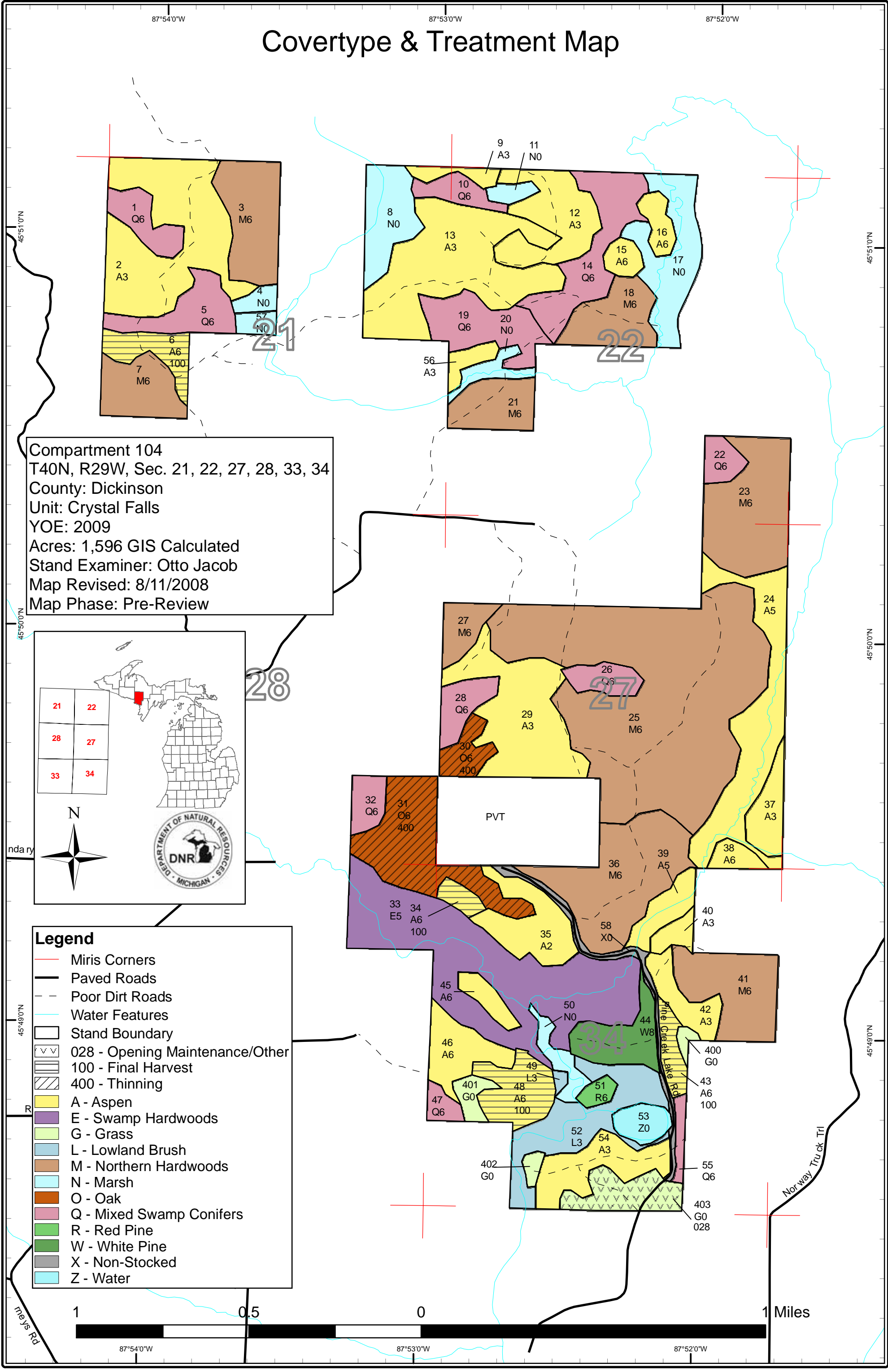
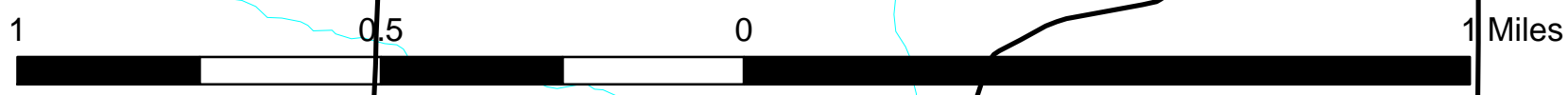
Covertime & Treatment Map

Compartment 104
 T40N, R29W, Sec. 21, 22, 27, 28, 33, 34
 County: Dickinson
 Unit: Crystal Falls
 YOY: 2009
 Acres: 1,596 GIS Calculated
 Stand Examiner: Otto Jacob
 Map Revised: 8/11/2008
 Map Phase: Pre-Review



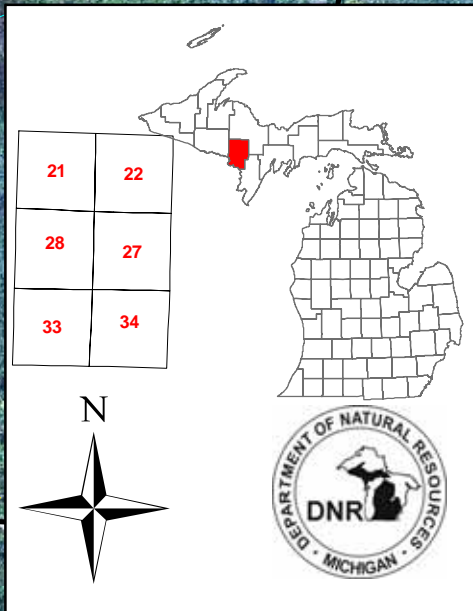
Legend

- Miris Corners
- Paved Roads
- Poor Dirt Roads
- Water Features
- Stand Boundary
- 028 - Opening Maintenance/Other
- 100 - Final Harvest
- 400 - Thinning
- A - Aspen
- E - Swamp Hardwoods
- G - Grass
- L - Lowland Brush
- M - Northern Hardwoods
- N - Marsh
- O - Oak
- Q - Mixed Swamp Conifers
- R - Red Pine
- W - White Pine
- X - Non-Stocked
- Z - Water

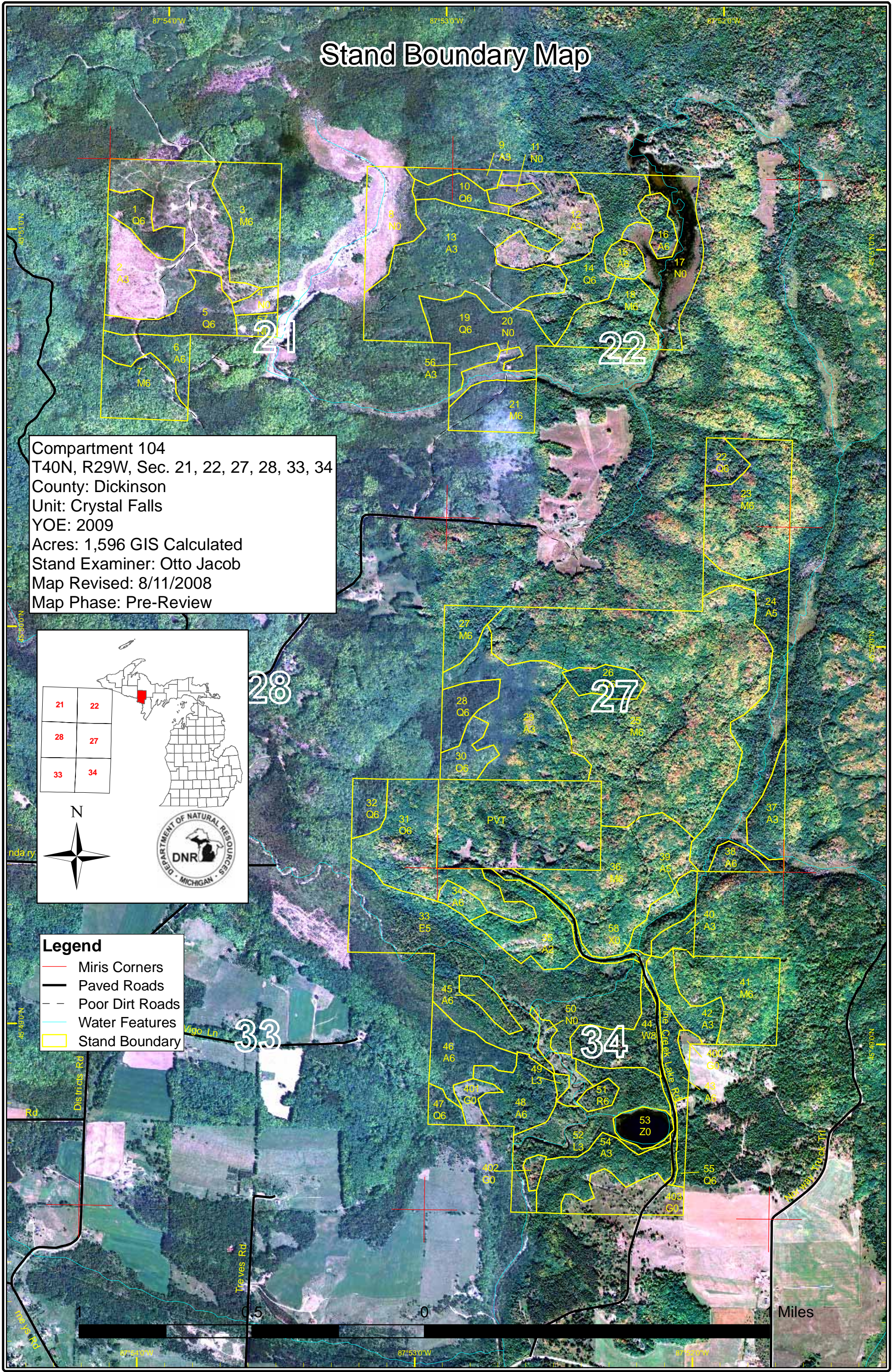


Stand Boundary Map

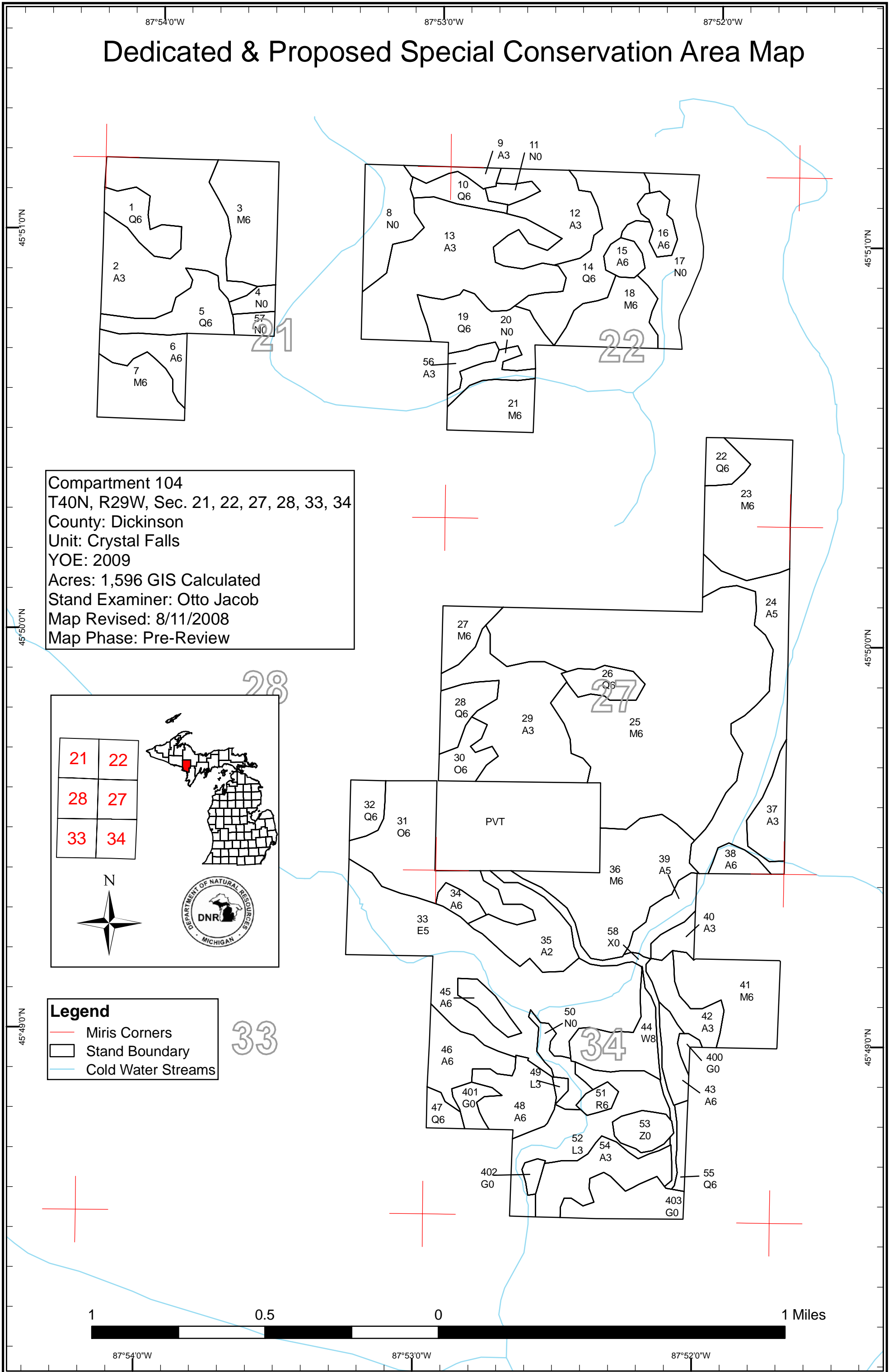
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- Legend**
- Miris Corners
 - Paved Roads
 - Poor Dirt Roads
 - Water Features
 - Stand Boundary



Dedicated & Proposed Special Conservation Area Map



Compartment 104
 T40N, R29W, Sec. 21, 22, 27, 28, 33, 34
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Legend
 — Miris Corners
 □ Stand Boundary
 — Cold Water Streams



87°54'0"W 87°53'0"W 87°52'0"W



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.