



**CRYSTAL FALLS FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

**COMPARTMENT #73 - ENTRY YEAR: 2010
Compartment Acreage: 2054 - County: Dickinson**

Revision Date: June 2008

Stand Examiner: Cynthia Cooper

Legal Description: T41N, R30W, Sections 2, 10, 11, 14, 15, 22-24

Management Goals: Goal for this year of entry is to improve Northern Hardwood stands and maintain Aspen component.

Soil and Topography: Mucky soils in lowlands to numerous rock outcrops in highlands.

Ownership Patterns, Development, and Land Use in and Around the Compartment: State ownership within compartment used for timber and recreation. Private (mostly residences) and corporate forest surrounds state ownership.

Unique, Natural Features: Mine pond in Sections 2 and 11.

Archeological, Historical, and Cultural Features: Mine pond in Section 14.

Special Management Designations or Considerations: Several silviculturally available stands have limiting factors. See 'Proposed Treatments with Limiting Factors' report attached.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations: Osprey, great blue heron rookery, wood turtle, and bald eagle documented to the east of Section 2. Potential for goshawk, red-shouldered hawk, great blue heron rookery, eagle, osprey, loon, and black-backed woodpecker. Potential for American shore grass, lake-cress, Farwell's water-milfoil, alternate leaved water-milfoil, and starwort in lakes.

Mineral, Oil and Gas Considerations: Surface sediments consist of thin to discontinuous glacial outwash sand and gravel and post glacial alluvium over bedrock. The glacial drift thickness varies between 10 and 100 feet. The Precambrian Archean Granite/Gneiss, Michigamme Formation and Chocolay 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. A crushed marble quarry is located just to the north. The Groveland iron mine is located approximately one mile to the east. Part of this compartment was previously leased for metallic exploration and there may still be potential. A gravel pit is located one mile to the east and there may be some potential. There is no economic oil and gas production in the UP.

Vehicle Access: Access fair except in the south east of section 14 and section 24. Landowner has denied access through private property.

Survey Needs: Several corners will be needed for timber sales.

Recreational Facilities and Opportunities: Fishing and hunting in mine pond area.

Fire Protection:

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: 73

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		223	259		94				58	118	42								794
Black Spruce											8								8
Cedar															105				105
Grass	17																		17
Lowlnd Brush	27										49								76
Marsh	8																		8
Mx Swmp Cnfr										12	20	240	25						297
Oak																		13	13
Paper Birch											83								83
Red Pine																		57	57
Swamp Hrdwds											9								9
Upland Hdwds										54								393	447
Water	135																		135
White Pine											5								5
Total	187	223	259		94				58	184	216	240	25		105			463	2054

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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: 73

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	789																		5								794
S Black Spruce		8																									8
C Cedar				105																							105
G Grass					17																						17
L Lowlnd Brush									76																		76
N Marsh											8																8
Q Mx Swmp Cnfr												297															297
O Oak														13													13
B Paper Birch															83												83
R Red Pine																57											57
E Swamp Hrdwds																			9								9
M Upland Hdwds																								447			447
Z Water																									135		135
W White Pine																										5	5
Total	789	8		105	17				76		8	297		13	83	57			5	9				447	135	5	2054

COPPER COUNTRY STATE FOREST

CRYSTAL FALLS FOREST MGT UNIT

DICKINSON COUNTY

COMPARTMENT: **73**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	14047 Cds	Hardwood	4154 Cds
Hardwood	1711 Mbf	Hardwood	949 Mbf
Softwood	5469 Cds	Softwood	553 Cds
Softwood	1009 Mbf	Softwood	142 Mbf
Sum TotVol	24956 Cds	Sum CutVol	6889 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	
2054		558	

CRYSTAL FALLS FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 73

Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
7	M6	101		55	northern hardwood	unevenaged	removal	1		
comnts Fmd : Much more white birch than plots hit. Remove aspen and birch, larger spruce/fir. Re-enter in 20-30 years and mark hard (to 60 BA) to manage for hardwood pulp (as per TMS). (2008)										
12	M6	57		55	northern hardwood	unevenaged	selection	2		
comnts Fmd : Some what hilly, rocky and wet in lower areas. Frozen or dry cut. W. ash in stand. Blue line in on north. Follow up with regeneration check.(2008)										
21	M6	204		55	northern hardwood	unevenaged	selection	2		
comnts Fmd : Hilly but mostly operable. Many rock outcrops. Drainage in center of stand. Follow up with regeneration check.(2008)										
56	M6	25		60	northern hardwood	unevenaged	selection	1		
comnts Fmd : Stand marked but not cut last YOE. Cut as marked with additional marking down to 70 BA (as per TMS). Follow up with regeneration check.(2008)										
Total Acres.....		387								

CRYSTAL FALLS FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

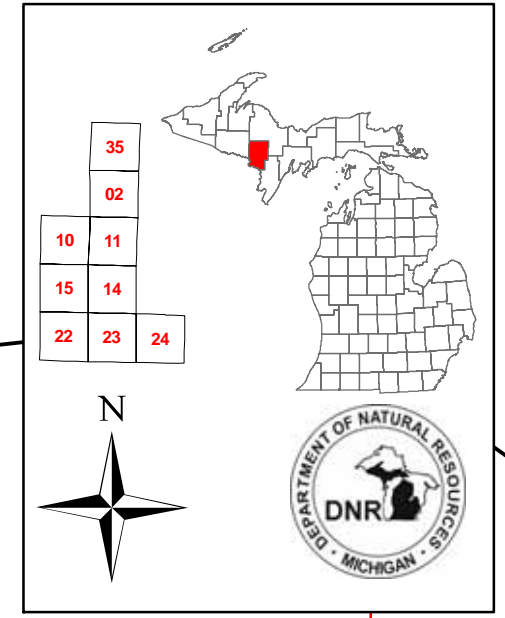
Compartment: 73

Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDf Status
26	A6	7	86	55	aspen (upland)	mature	final harvest	1		
TREATMENT LIMITING FACTORS: Influence zones Water quality/bmps Deer yards										
comnts Fmd : Aspen very poor. Along creek, hilly, travel influence.(2008)										
30	A6	58	68	60	aspen (upland)	mature	final harvest	2		
TREATMENT LIMITING FACTORS: Adjacent landowner denies access Too steep										
comnts Fmd : SLOPES TO SE ROCK OUTCROP ON NORTH END. PINE AND BIRCH ON RIDGE TOPS , ASPEN ON FLATS. ADJACENT LANDOWNER WILL NOT ALLOW ACCESS USING HIS LAND AND CROSSING STEELE CREEK TO THE SOUTH IS NOT AN OPTION. .(2008)										
35	M6	2	86	55	northern hardwood	mature	thinning	2		
TREATMENT LIMITING FACTORS: Influence zones Inadequate volume due to small acreage Deer yards										
comnts Fmd : Travel influence. Remove aspen and some hardwood.(2008)										
36	A6	1	86	55	aspen (upland)	mature	final harvest	2		
TREATMENT LIMITING FACTORS: Influence zones Deer yards Land survey needed										
comnts Fmd : Travel influence. Small.(2008)										
52	A6	5	86	55	spruce-fir (uplands- including upland black spruce)	mature	final harvest	1		
TREATMENT LIMITING FACTORS: Influence zones Water quality/bmps Inadequate volume due to small acreage										
comnts Fmd : Small stand on road and railroad line with creek running through. If cutting retain conifer. (2008)										
66	A6	98	81	60	aspen (upland)	mature	final harvest	2		
TREATMENT LIMITING FACTORS: Too steep										
comnts Fmd : Inoperable.(2008)										
Total Acres.....		171								

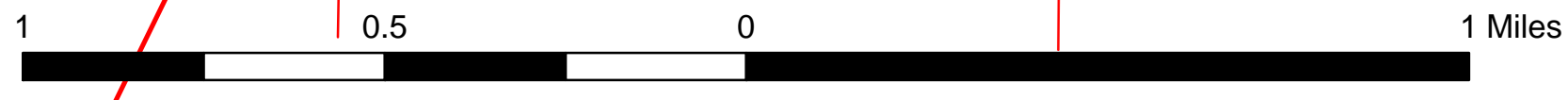
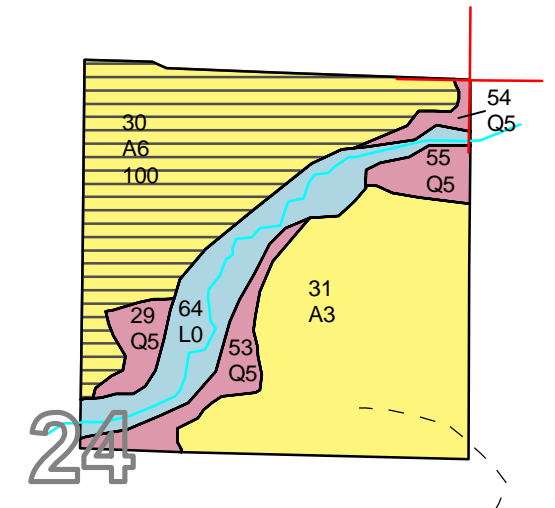
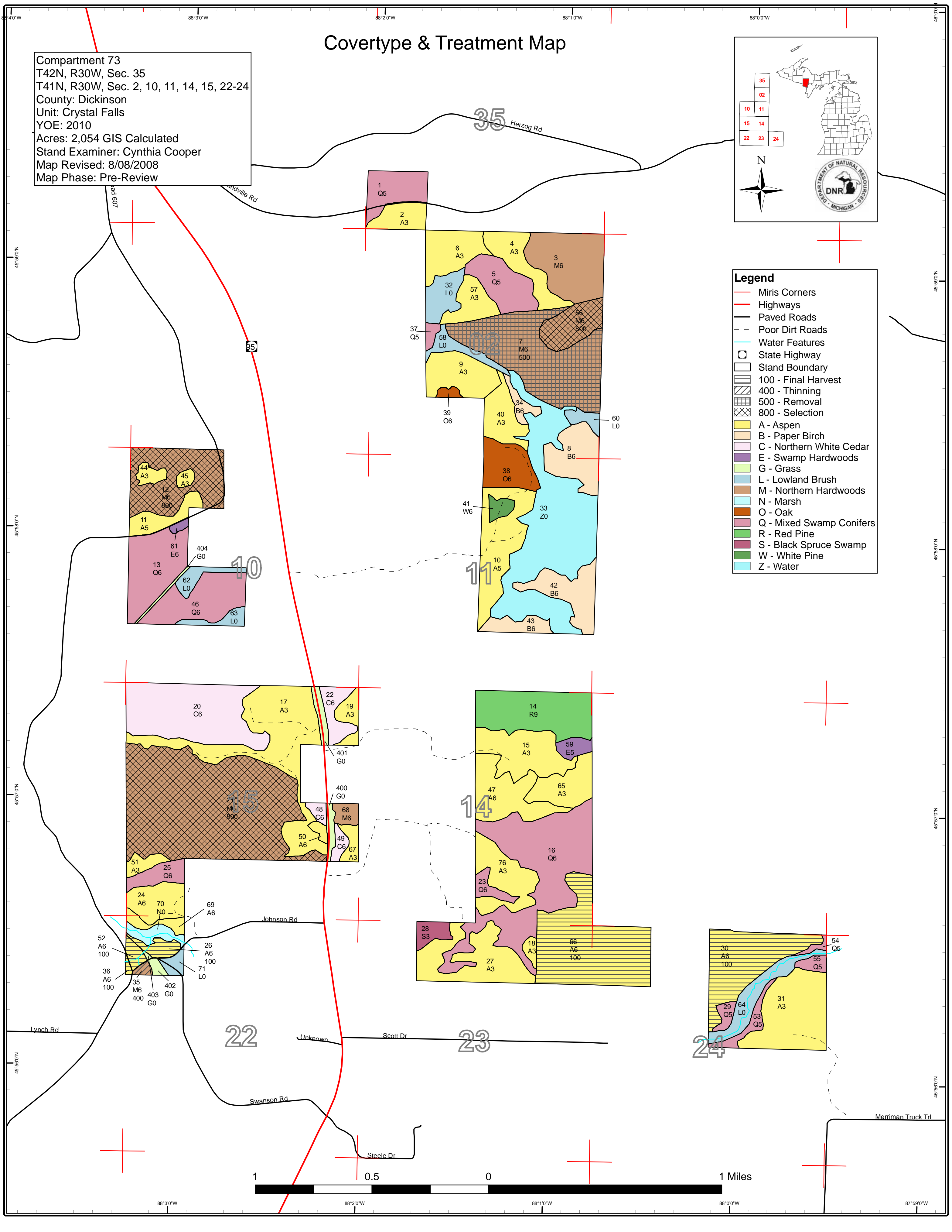
Covertypes & Treatment Map

Compartment 73
 T42N, R30W, Sec. 35
 T41N, R30W, Sec. 2, 10, 11, 14, 15, 22-24
 County: Dickinson
 Unit: Crystal Falls
 YOE: 2010
 Acres: 2,054 GIS Calculated
 Stand Examiner: Cynthia Cooper
 Map Revised: 8/08/2008
 Map Phase: Pre-Review



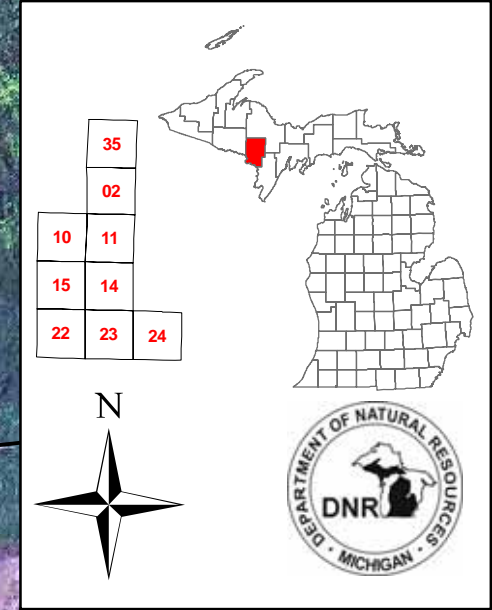
Legend

- Miris Corners
- Highways
- Paved Roads
- Poor Dirt Roads
- Water Features
- State Highway
- Stand Boundary
- 100 - Final Harvest
- 400 - Thinning
- 500 - Removal
- 800 - Selection
- A - Aspen
- B - Paper Birch
- C - Northern White Cedar
- E - Swamp Hardwoods
- G - Grass
- L - Lowland Brush
- M - Northern Hardwoods
- N - Marsh
- O - Oak
- Q - Mixed Swamp Conifers
- R - Red Pine
- S - Black Spruce Swamp
- W - White Pine
- Z - Water

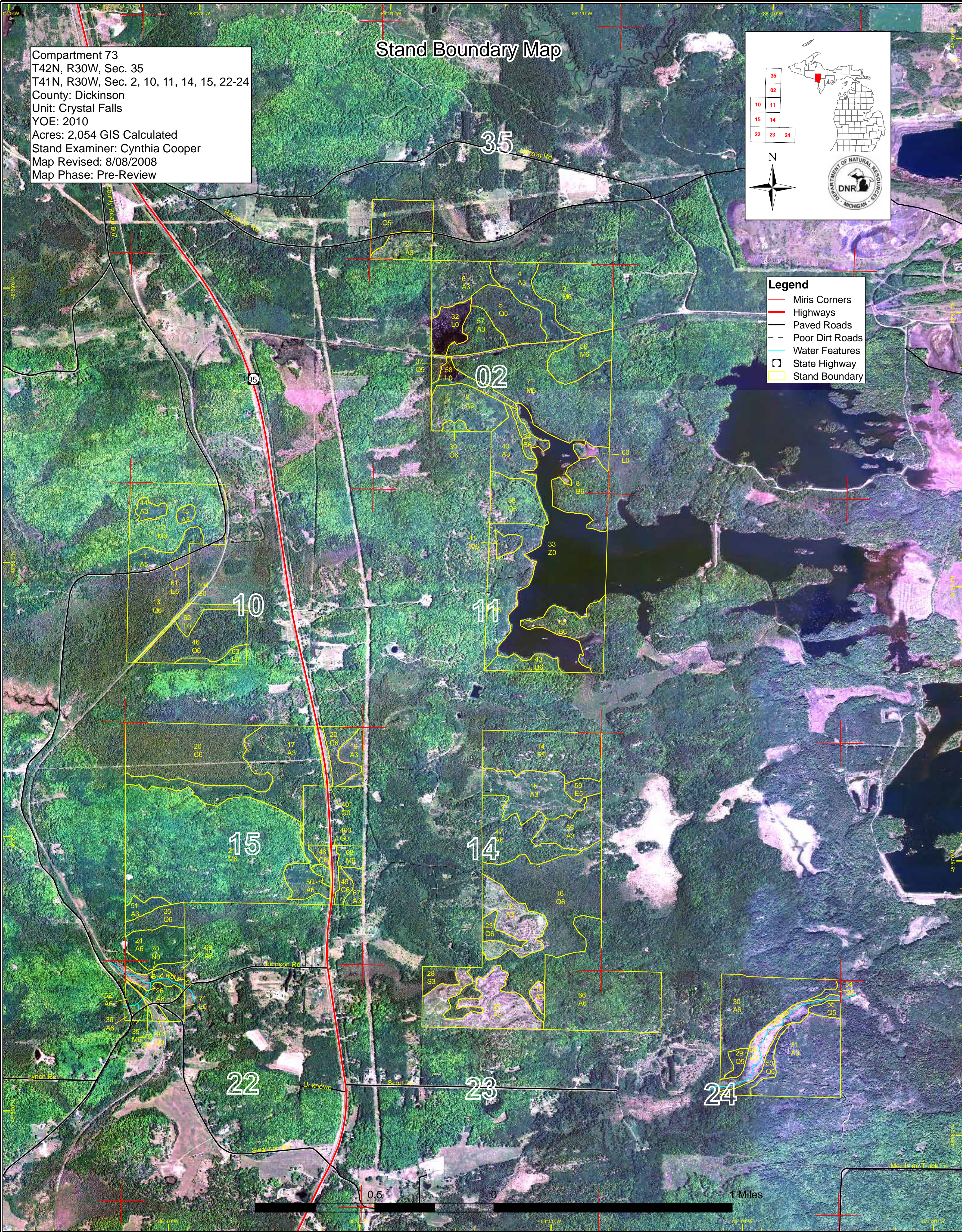


Stand Boundary Map

Compartment 73
 T42N, R30W, Sec. 35
 T41N, R30W, Sec. 2, 10, 11, 14, 15, 22-24
 County: Dickinson
 Unit: Crystal Falls
 YOE: 2010
 Acres: 2,054 GIS Calculated
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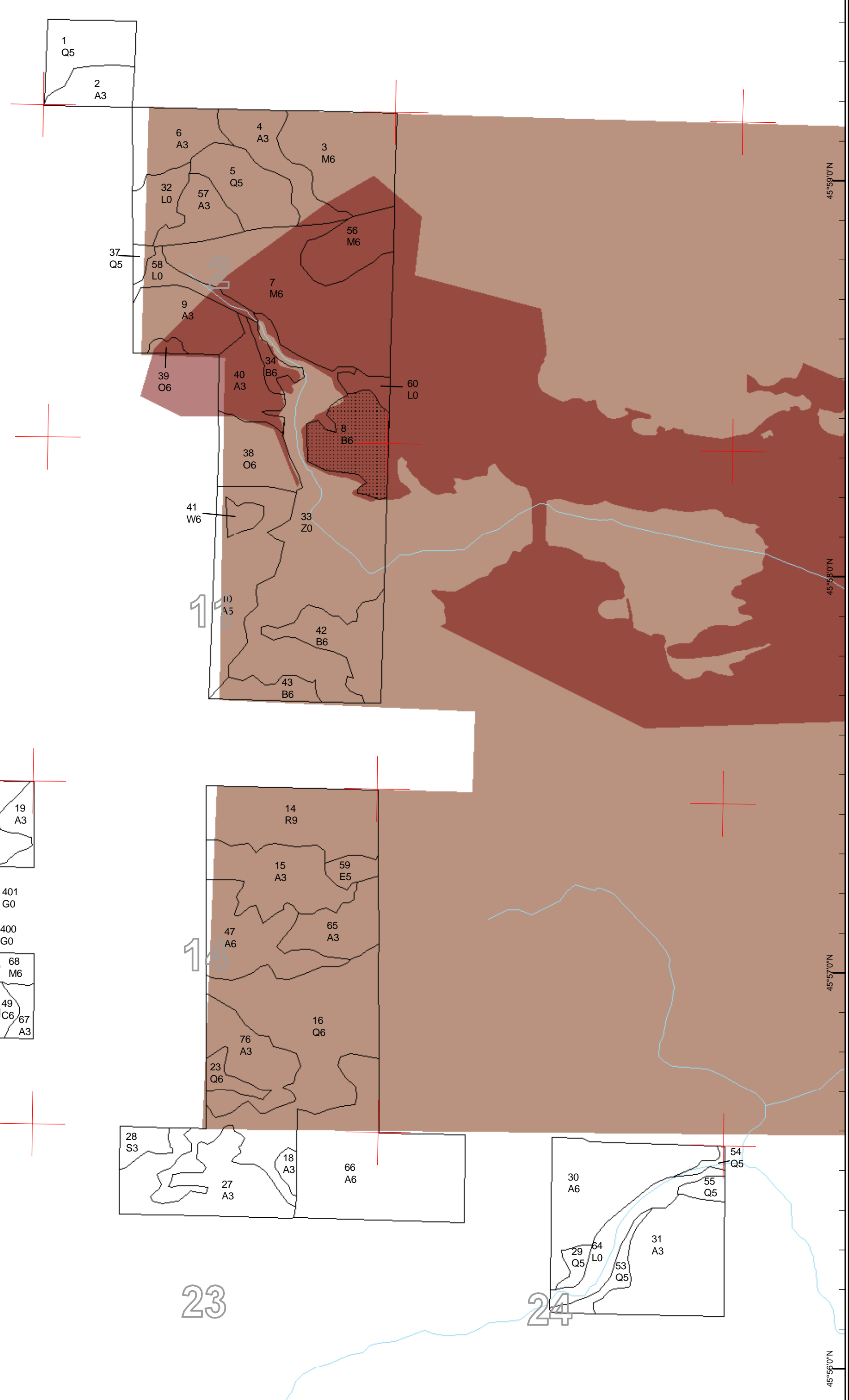
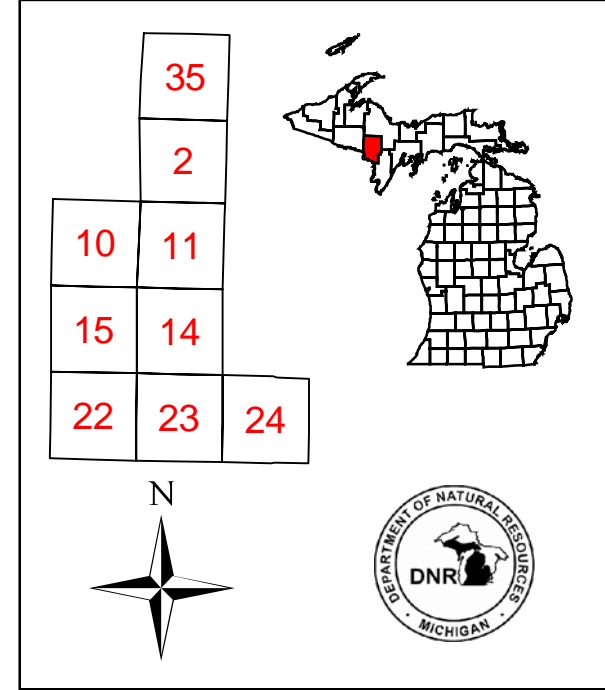
- Legend**
- Miris Corners
 - Highways
 - Paved Roads
 - - Poor Dirt Roads
 - Water Features
 - State Highway
 - Stand Boundary



Dedicated & Proposed Special Conservation Area Map

Compartment 73
 T42N, R30W, Sec. 35
 T41N, R30W, Sec. 2, 10, 11, 14, 15, 22-24
 County: Dickinson
 Unit: Crystal Falls
 YOE: 2010
 Acres: 2,054 GIS Calculated
 Stand Examiner: Cynthia Cooper
 Map Revised: 8/08/2008
 Map Phase: Pre-Review

- Legend**
-  Miris Corners
 -  Stand Boundary
 -  Cold Water Streams
 -  Special Conservation Areas
 -  Deer Wintering Areas
 -  Wildlife Management Areas





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	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.