



SHINGLETON FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 149 ENTRY YEAR: 2010

Compartment Acreage: 2570 County: Schoolcraft

Revision Date:

Stand Examiner: Robert Tylka

Legal Description: T47N R15W Sections 24, 25, 35 & 36

RMU (if applicable):

Management Goals: To manage the compartment in accordance with the principles of sustainable forest eco-system management, with emphasis on timber production, maintaining & enhancing wildlife habitat, and protection of riparian areas.

Soil and Topography: The topography varies from flat & wet to gently rolling with some relatively steep ridges. In the bottomlands, soil drainage is moderate to slow, but significantly better with slight increases in elevation. The steeper ridges are comprised of sandy, well-drained soils.

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

There are no private lands within this compartment, nor any developments except for roads. Section 23 (adjacent to the west) is comprised of various private ownerships.

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

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

Special Management Designations or Considerations:

The northeast corner of this compartment is bounded by the Little Fox River, which falls under the Fox River HCVA. Any treatments in this area must comply with provisions of the Fox River Plan.

Watershed and Fisheries Considerations:

Small reaches of the Driggs and Fox Rivers are found along the western and eastern boundaries of this compartment. Both rivers support good- to excellent populations of brook trout. BMP's should be implemented to control sediment sources from adjacent uplands. Fine sediments such as silt and sand negatively affect natural reproduction of fish, decrease the diversity of aquatic invertebrate and fish taxa, and result in lower overall fish populations.

Wildlife Habitat Considerations:

This compartment lies between Fox River Road and Driggs River Road approximately two miles east of Driggs Lake. The Little Fox River flows along the northeastern corner. The cover types are dominated by conifer forest and open bogs. A substantial portion of the jack pine has been harvested in past years, and young jack pine growth has established in many of these areas resulting varying age classes of conifer cover across the landscape. Wildlife objectives include maintaining mature conifer habitat, providing early successional young conifer stands while maintaining travel corridors for wildlife, maintaining the integrity of lowland habitats by ensuring that management activities do not alter drainage patterns, and maintaining super-canopy pine trees.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of peat & muck, glacial outwash sand and gravel and postglacial alluvium and minor lacustrine (lake) sand & gravel. There is insufficient data to determine the glacial drift thickness. The Ordovician Black River Group subgroups below the glacial drift. The Black River is quarried for stone/dolomite elsewhere in the UP. Gravel pits are not found in the general

area, but there could be some potential. There is no commercial oil and gas production in the UP.

Vehicle Access:

Access to many areas of this compartment is limited by the low, wet terrain. All-season roads provide reasonably good access through section 24 and into the east half of section 25 from the Fox River Road, and to much of section 35 from the Driggs River Road. Access across the marsh in sections 25, 35 and 36 is limited to winter; in many cases it may prove impractical/impossible even during a typical winter.

Survey Needs: None at this time.

Recreational Facilities and Opportunities:

There are no developed recreational facilities in the compartment at this time. The area is locally popular for hunting and berry picking, and both the Driggs & Little Fox Rivers are popular fishing destinations.

Fire Protection.

Conifers and non-stocked wetlands are the dominant fuel types in most of this compartment. Access issues may make fire suppression difficult.

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

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

SCHOOLCRAFT COUNTY

COMPARTMENT: 149

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		2	23	11															36
Black Spruce		25	63				39			215	5		29						376
Hemlock																		2	2
Jack Pine	17	8	347	85			10	4			55								526
Lowlnd Brush	1																		1
Marsh	1154																		1154
Mx Swmp Cnfr										25		4						51	80
Non Stocked	2																		2
Red Pine									25				115						140
Spruce Fir				7															7
Tamarack											26	8							34
Treed Bog	17																		17
Upland Hdwds																		50	50
White Pine											1		113	31					145
Total	1191	35	433	103			49	4	25	240	87	12	257	31				103	2570

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

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

SCHOOLCRAFT COUNTY

COMPARTMENT: 149

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	36																										36
S Black Spruce		376																									376
H Hemlock						2																					2
J Jack Pine							471					55															526
L Lowlnd Brush									1																		1
N Marsh											1154																1154
Q Mx Swmp Cnfr												80															80
X Non Stocked													2														2
R Red Pine															140												140
F Spruce Fir																			7								7
T Tamarack																					34						34
D Treed Bog																						17					17
M Upland Hdwds																								50			50
W White Pine																									145	145	
Total	36	376				2	471		1	1154	135	2			140			7		34	17		50		145	2570	

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

SCHOOLCRAFT COUNTY

COMPARTMENT: **149**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	1067 Cds	Hardwood	205 Cds
Hardwood	36 Mbf	Softwood	2313 Cds
Softwood	5546 Cds	Softwood	169 Mbf
Softwood	1431 Mbf	Sum CutVol	2856 Cds
Sum TotVol	9547 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	226
2570			

SHINGLETON FOREST AREA

**Proposed Treatments
With NO Limiting Factors**

Compartment: 149 **Entry Year: 2010**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
7	S6	100	79	42	black spruce-swamp	mature	final harvest	2		
<p>comnts Fmd : Scattered large W.Pine throughout the stand. Some partial cutting was done in parts of the stand around 1960 - areas with younger timber may be kept for retention. Also include a retention zone to form a wildlife travel corridor between stands 10 and 20. Acceptable regeneration will include all conifers.</p> <p>Wld : Preserve a travel corridor of mature conifer through the stand with retention patches in the part of the stand between stands 10 and 20.</p>										
8	J0	17		54	jack pine	in process of regeneration		0	planting	
<p>comnts Fmd : [10/08 km] Cut with 41-006-06-01. FTP C41-1277.</p>										
27	S6	9	79	41	black spruce-swamp	mature	final harvest	1		
<p>comnts Fmd : Mixed softwood includes a few balsam fir, red, white and jack pines. Beginning to break up - cut it now. Reserve red & white pine. The understory is a mix of red maple and spruce, so natural regeneration should be sufficient. All conifers are acceptable regeneration.</p>										
51	S5	29	115	42	black spruce-swamp	mature	final harvest	2		
<p>comnts Fmd : [2/21/08] Stand is currently being prepped for sale along with adjacent timber in compartment 148. [3/12/08 jb] retention area was left in the NE corner of the stand, see cmpt map.</p>										
52	W9	12	119	46	white pine	mature	thinning	2		
<p>comnts Fmd : Recommend removing scattered hardwoods & b.spruce and thinning to remove poorer quality w.pine. Manage for WP/NWC. [2/21/08] Stand is currently being prepped for sale along with adjacent timber in compartment 148.</p>										
Total Acres.....		167								

SHINGLETON FOREST AREA

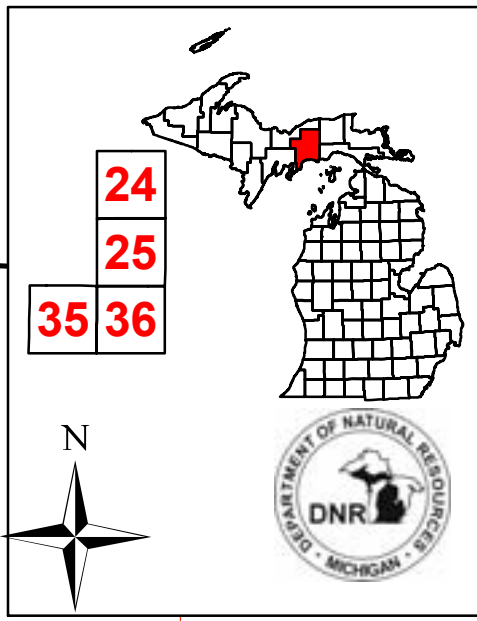
Proposed Treatments
With Limiting Factors

Compartment: 149 Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
40	J5	55	88	50	mixed swamp conifer	mature	final harvest	2		
TREATMENT LIMITING FACTORS: Other Agency concerns (name in comments)										
comnts Fmd : Low, wet area - stand density and varies significantly throughout the stand as the overmature jack pine is breaking up. The understory is a mix of species including tamarack, spruce, white pine, red maple and lowland brush. Cut with stand 4113034 in Cmp 130 adjacent to the east - due for treatment in YOE 2011.										
53	W9	1	123	42	white pine	mature	shelterwood-seed	3		
TREATMENT LIMITING FACTORS: Inadequate volume due to small acreage										
comnts Fmd : Mature W9 stand with a few scattered hardwoods & spruce. The understory is primarily red maple, beech and spruce. Cut now - shelterwood leaving 40-50 sq.ft./acre of healthy white pine and harvesting all others; if encountered, red pine, hemlock and cedar may be reserved. White pine regeneration is desirable, but a mix of all species present is acceptable.										
54	S5	4	87	48	black spruce-swamp	high risk	final harvest	1		
TREATMENT LIMITING FACTORS: Inadequate volume due to small acreage										
comnts Fmd : Black spruce with a few scattered pines and tamarack - stand is breaking up and should be cut now. Stand density and site indices vary with slight elevation changes. The under story is a mix of spruce, pine and red maple, so expect these species to regenerate for the next stand. Winter logging only - too wet for any other season. Mixed softwood is primarily white & jack pines + tamarack.										
55	W9	2	123	42	white pine	mature	shelterwood-seed	3		
TREATMENT LIMITING FACTORS: Inadequate volume due to small acreage										
comnts Fmd : Mature W9 stand with a few scattered hardwoods & spruce. The understory is primarily red maple, beech and spruce. Cut now - shelterwood leaving 40-50 sq.ft./acre of healthy white pine and harvesting all others; if encountered, red pine, hemlock and cedar may be reserved. White pine regeneration is desirable, but a mix of all species present is acceptable.										
56	W9	4	123	42	white pine	mature	shelterwood-prep	2		
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : Mature W9 stand becoming an unevenaged mix - Shelterwood cut leavivg 30-40 sq.ft./acre of white pine and cherry would be the recommended treatment, but access across the marsh makes harvest impractical.										
57	W9	2	123	42	white pine	mature	shelterwood-prep	2		
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : Mature W9 stand becoming an unevenaged mix - Shelterwood cut leavivg 30-40 sq.ft./acre of white pine and cherry would be the recommended treatment, but access across the marsh makes harvest impractical.										
58	T6	2	102	50	tamarack	mature	final harvest	3		
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : Mature tamarack with a few red maple on the dryer spots. The understory is a mix of red maple, tamarack, spruce and lowland brush in the wettest areas. Access across the marsh is difficult.										
59	T6	2	102	50	tamarack	mature	final harvest	3		
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : Mature tamarack with a few red maple on the dryer spots. The understory is a mix of red maple, tamarack, spruce and lowland brush in the wettest areas. Access across the marsh is difficult.										
60	T6	2	102	50	tamarack	mature	final harvest	3		
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : Mature (8-14" DBH) tamarack/spruce mix with a few scattered cherry & red maple on the dryer spots. The understory is a mix of red maple, tamarack, spruce and lowland brush in the wettest areas. Access across the marsh is not practical.										
61	T6	2	102	50	tamarack	mature	final harvest	3		
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : Mature (8-14" DBH) tamarack/spruce mix with a few scattered cherry & red maple on the dryer spots. The understory is a mix of red maple, tamarack, spruce and lowland brush in the wettest areas. Access across the marsh is not practical.										
Total Acres.....		76								

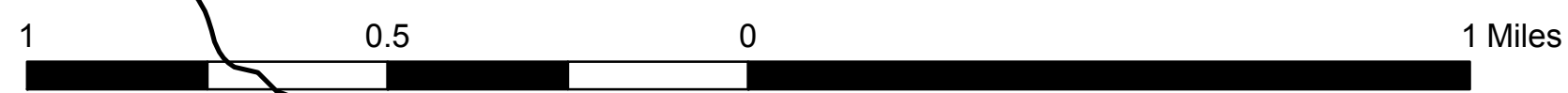
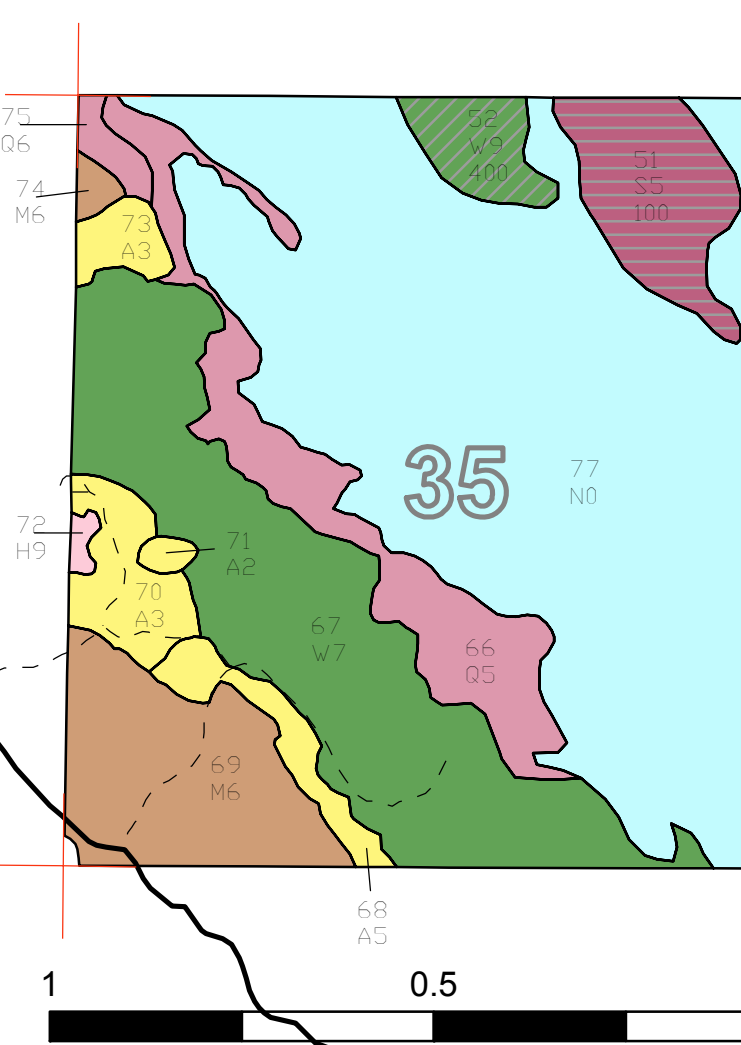
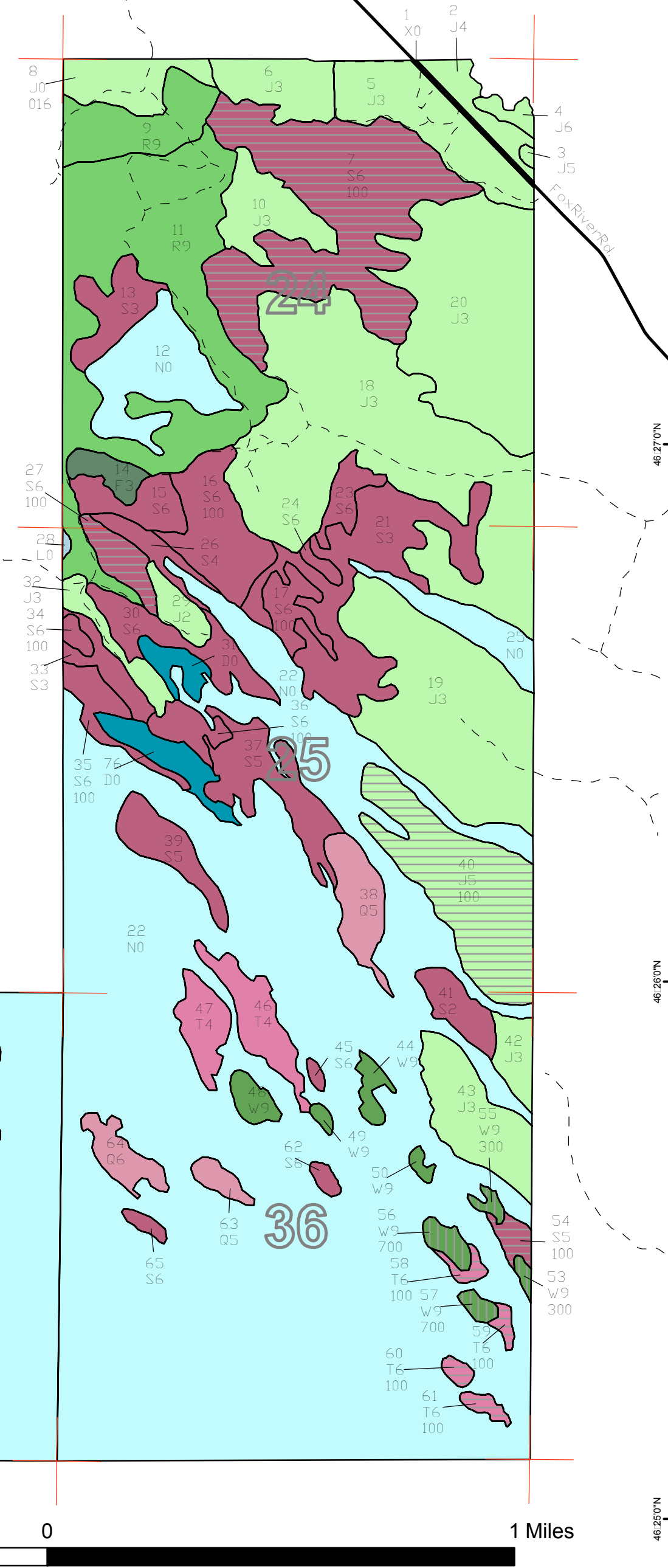
Covertypes & Treatment Map

Compartment 149
 T47N, R15W, Sec. 24, 25, 35, 36
 County: Schoolcraft
 Unit: Shingleton
 YOY: 2010
 Acres: 2,570 GIS Calculated
 Stand Examiner: Robert Tylka
 Map Revised: 10/31/2008
 Map Phase: Pre-Review



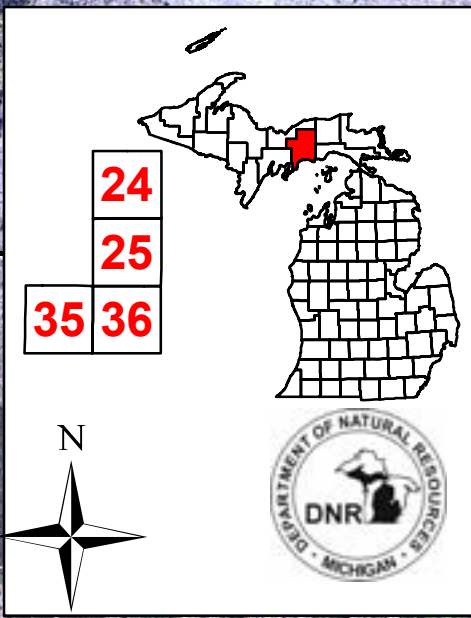
Legend

- Miris Corners
 - Paved Roads
 - Poor Dirt Roads
 - Stand Boundaries
- Treatments**
- 100 - Final harvest
 - 116 - Final harvest/Planting
 - 300 - Shelterwood-seed
 - 400 - Thinning
 - 700 - Shelterwood-prep
- Cover Type**
- A - Aspen
 - D - Treed Bog
 - F - Upland Spruce or Fir
 - H - Hemlock
 - J - Jack Pine
 - L - Lowland Brush
 - M - Northern Hardwoods
 - N - Marsh
 - Q - Mixed Swamp Conifers
 - R - Red Pine
 - S - Black Spruce Swamp
 - T - Tamarack
 - W - White Pine
 - X - Non-Stocked



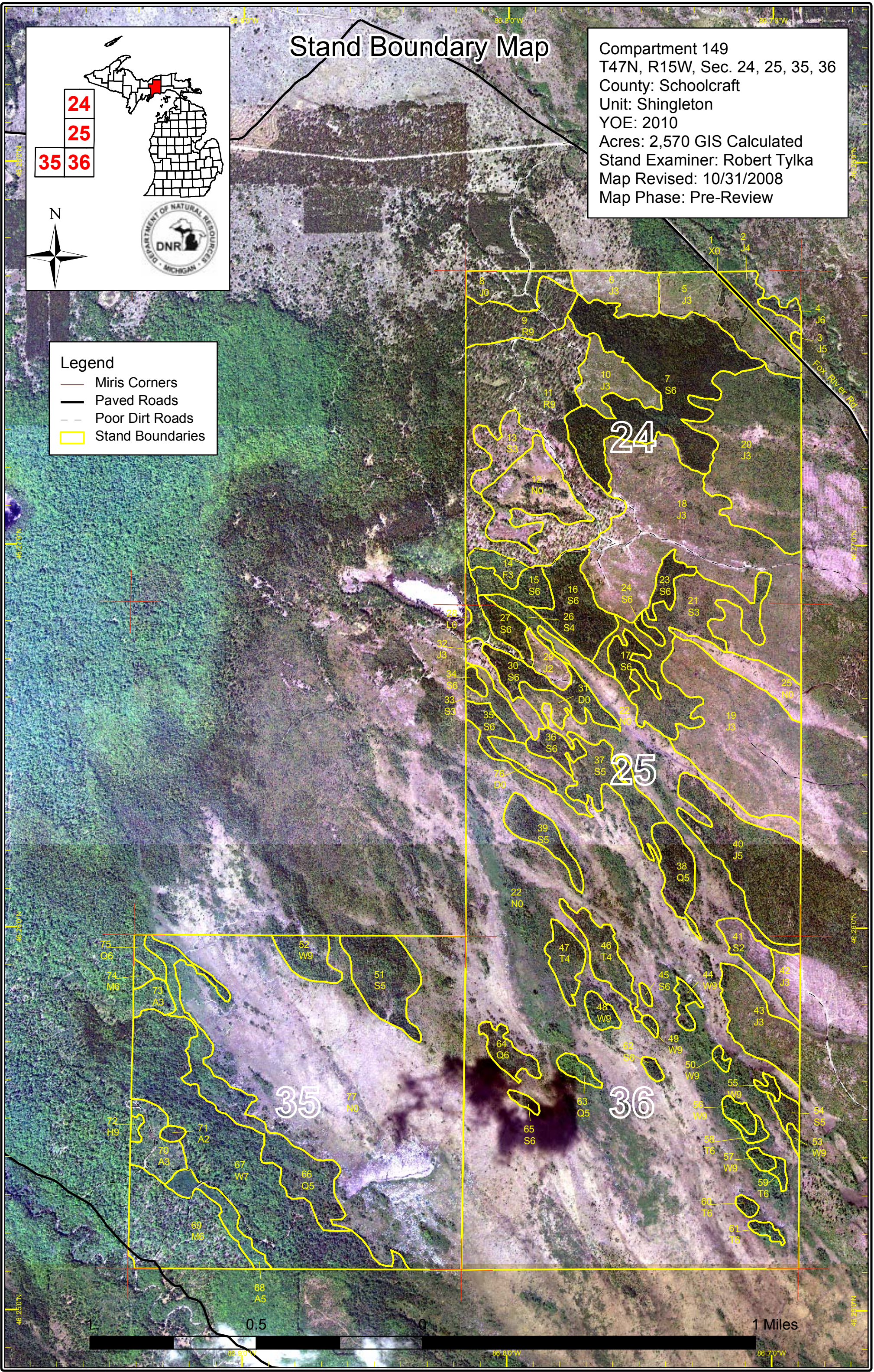
Stand Boundary Map

Compartment 149
T47N, R15W, Sec. 24, 25, 35, 36
County: Schoolcraft
Unit: Shingleton
YOE: 2010
Acres: 2,570 GIS Calculated
Stand Examiner: Robert Tylka
Map Revised: 10/31/2008
Map Phase: Pre-Review



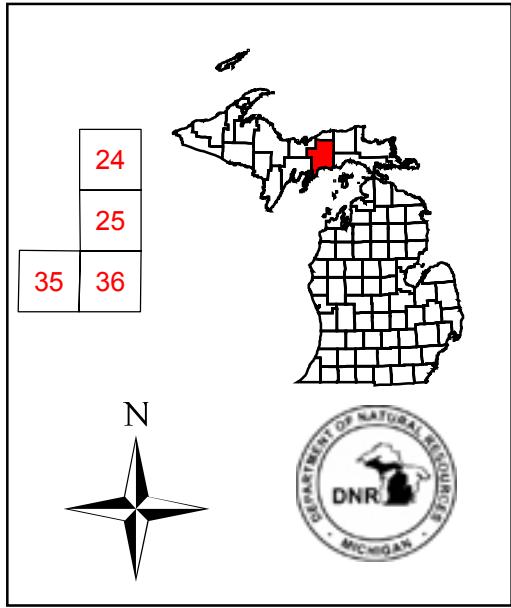
Legend

- Miris Corners
- Paved Roads
- - - Poor Dirt Roads
- Stand Boundaries



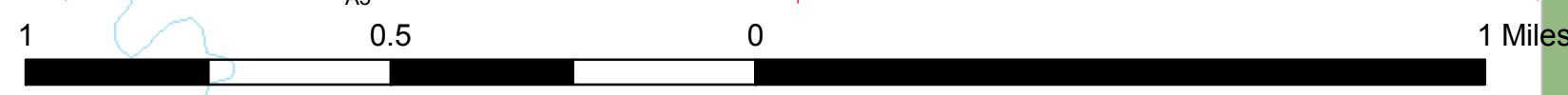
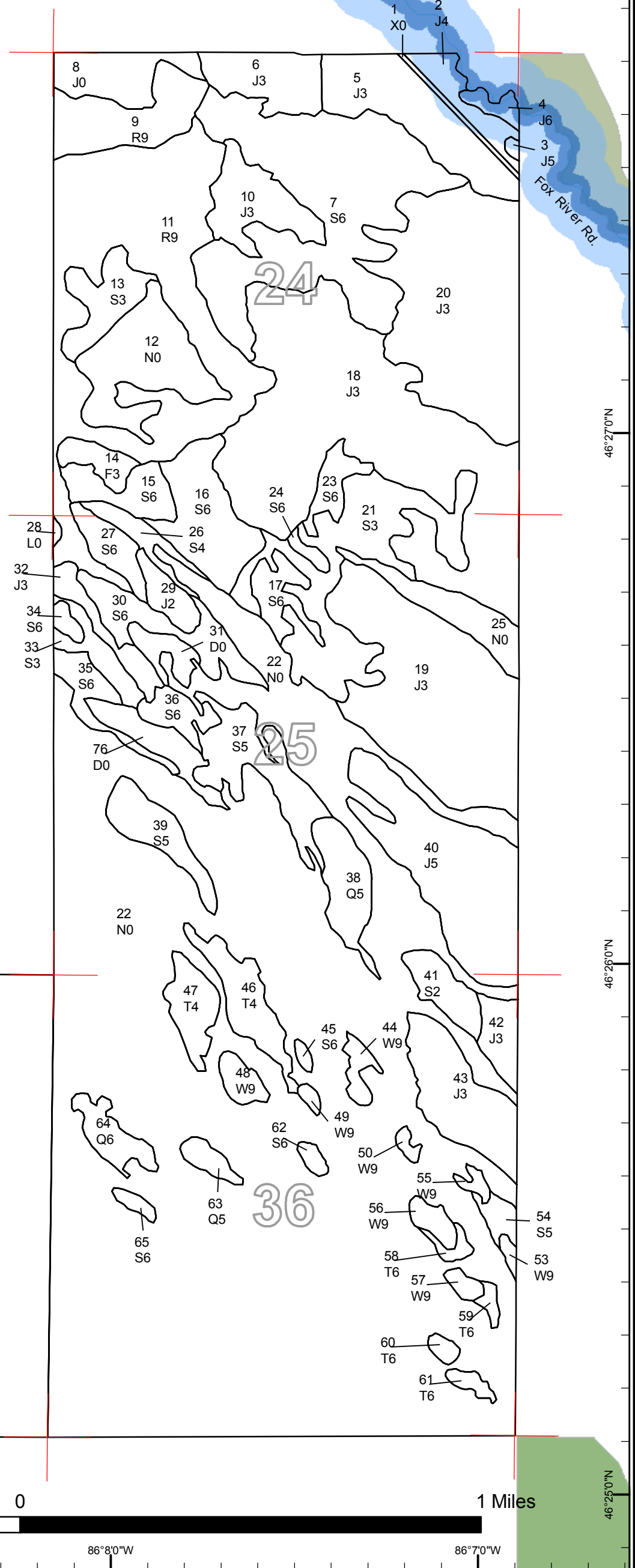
Dedicated & Proposed Special Conservation Area Map

Compartment 149
 T47N, R15W, Sec. 24, 25, 35, 36
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2010
 Acres: 2,570 GIS Calculated
 Stand Examiner: Robert Tylka
 Map Revised: 10/31/2008
 Map Phase: Pre-Review



Legend

- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- OI Special Conservation Areas
- Potential Old Growth Stands
- Cold Water Streams





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	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
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.