



**SHINGLETON FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT #37 ENTRY YEAR: 2011

Compartment Acreage: 1955 County: Schoolcraft

Revision Date: 10/20/09

Stand Examiner: Bob Burnham

Legal Description: T43N R16W Sections 4,5,9,16

RMU (if applicable):

Management Goals: The goals in this compartment include conducting multiple resource management for current and future generations. Forest Health, Recreation, Biodiversity Stewardship, Wildlife and Timber Management are some of the key management components within this compartment.

Soil and Topography: Most of section 5 consists of peat type soils and is low flat ground. As you move to the east into section 4 the terrain changes and gets higher as you enter the Hiawatha Moraine. The soils here are mainly McMillan Stutts Complex and Rubicon sands.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Ownership is somewhat fragmented within the center of the compartment, with a mix of permanent residences and seasonal camps. There is a private sand pit within section 4 and also an 800 MHz tower which is part of a long term lease.

Unique, Natural Features (include only non-site specific and non-sensitive information): Currently under review by Michigan Natural Features Inventory (MNFI).

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): None known.

Special Management Designations or Considerations: The southern portion of the compartment is within the Sturgeon Hole Deeryard.

Watershed and Fisheries Considerations: No fisheries concerns.

Wildlife Habitat Considerations: This compartment is located along M-94 just east of the Mint Farm in Schoolcraft County. It contains a gradient of habitat types ranging from lowland brush in the west through early successional pine, aspen, and birch in the central and southern parts to northern hardwoods and grassy openings in the east. There is also a small portion of oak in the north and oak mixed with pine and other species in the south. The wildlife goals in this compartment are to provide super-canopy pine trees, promote age and structural diversity within the hardwood stands, protect the existing oak, and to promote age and structural diversity between aspen stands.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of coarse-textured till, lacustrine (lake) sand and gravel and minor peat and muck. The glacial drift thickness varies up

to 200 feet. The Ordovician Bill Hill Dolomite and Stonington Formation subcrop below the glacial drift. These rocks could be used for stone. Gravel, sand & clay pits are located in the area and there appears to be potential. There is no commercial oil and gas production in the UP.

Vehicle Access: M-94 runs through the compartment and there is excellent access to most of the compartment via county maintained roads and State two-tracks with the exception of section 5. Access is non-existent in section 5 due to the low ground and peat soils. There is an old closed road that runs along a ridge in the northwest corner of the section but there is no bridge across the Big Ditch to the west.

Survey Needs: None at the present time.

Recreational Facilities and Opportunities: The Haywire Grade is a designated snowmobile trail. There is also an effort to have the grade designated as an ORV trail. There is a boat access site on Ashford Lake which sits just to the east of the compartment.

Fire Protection: Most of the upland portions of the compartment have good access if needed for fire operation. However, the lower ground in section 5 has poor access but more importantly is comprised of peat soils which have proven to be difficult to extinguish due to the depth at which they can burn underground.

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**

11/2/2009 11:22:21 AM

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

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST MGT UNIT

SCHOOLCRAFT COUNTY

COMPARTMENT: 37

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		89	144	90	294	4	14		82										717
Black Spruce			22						19										41
Cedar												7	65						72
Grass	3																		3
Jack Pine		7	11						50										68
Local Name	14																		14
Lowlnd Brush	217																		217
Mx Swmp Cnfr		21							59										80
Non Stocked	23																		23
Oak									18										18
Red Pine						23	18		5		9								55
Tamarack										70									70
Upland Brush	7																		7
Upland Hdws								46	22	28								241	337
Water	5																		5
White Pine					23		5	50	110	40									228
Total	269	117	177	90	317	27	37	96	365	138	9	7	65					241	1955

11/2/2009 11:22:25 AM

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

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST MGT UNIT

SCHOOLCRAFT COUNTY

COMPARTMENT: 37

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	717																										717
S Black Spruce		41																									41
C Cedar				72																							72
G Grass					3																						3
J Jack Pine							68																				68
I Local Name								14																			14
L Lowlnd Brush									217																		217
Q Mx Swmp Cnfr												80															80
X Non Stocked													23														23
O Oak														18													18
R Red Pine															55												55
T Tamarack																					70						70
U Upland Brush																								7			7
M Upland Hdwds																								337			337
Z Water																									5		5
W White Pine																										228	228
Total	717	41		72	3		68	14	217			80	23	18	55						70		7	337	5	228	1955

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST MGT UNIT

SCHOOLCRAFT COUNTY

COMPARTMENT: **37**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	9787 Cds	Hardwood	3533 Cds
Hardwood	826 Mbf	Hardwood	129 Mbf
Softwood	6833 Cds	Softwood	1120 Cds
Softwood	662 Mbf	Softwood	130 Mbf
Sum TotVol	19596 Cds	Sum CutVol	5171 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	334
1955			

SHINGLETON FOREST MGT UNIT

Proposed Treatments
With NO Limiting Factors

Compartment: 37

Entry Year: 2011

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
8	M6	34		55	northern hardwood	unevenaged	selection	2		
comnts Fmd : Stand is more even aged red maple to the west and un-evenaged to the east. There is an aspen component within center of stand in which it would be a good opportunity to make some larger holes to maintain aspen clones. The stand is quite diverse with some beech, pine logs, hemlock and yellow birch.										
12	A6	33	69	60	aspen (upland)	mature	final harvest	1		
comnts Fmd : Very nice aspen stand which is mostly high ridges. Likely more white birch than plots indicate. Stand is mature and needs to be cut. Leave some white birch seed trees. Retention should be carved out of the southern tail piece. Incorporate some aspen roost tree into the red line.										
22	R6	13	48	50	red pine	immature	thinning	2		prescribed for fdf treatment
comnts Fmd : [12-12-02 BB] Stand was cut in the spring of 2002 Tower Aspen Jack Pine, Unit 3. Stand could use a light thinning, maintain hardwood component. Stand used to have a tower within it but it has been dismantled.										
24	M9	48		60	northern hardwood	unevenaged	selection	2		
comnts Fmd : Unit 1 Ski Trail Parking Lot Sale, cut around 1997. Stand is heavy to logs, not much pole material, good regen which needs to be released by making holes. There is beech scale within stand. Remove the quality beech logs if they occur and leave the smaller diameter smooth barked beech and the large mast trees. Cut to the compleat marker standards.										
29	A6	17	77	57	aspen (upland)	mature	final harvest	1		
comnts Fmd : Nice aspen stand, leave small diameter white pine and axclude some supercanopy white pine with red line.										
30	M6	28	79	54	northern hardwood	two aged	selection	2		
comnts Fmd : Stand is predominantly hardwood with some mature aspen within it. Regen is M3 cut stand and remove aspen to create holes for some aspen clones to regenerate as well as release the regen that occurs. There are some failed red pine plantations patches within stand, hold for their conifer component.										
34	A6	14	55	54	aspen (upland)	mature	final harvest	2		
comnts Fmd : Nice aspen, leave some red and white pine for seed, put at least 100' buffer in for Kepler Lake and and leave a strip between sale on southwest. This will solve green-up and retention issues.										
36	W6	62	74	52	white pine	immature	thinning	2		
comnts Fmd : Very large stand which has pine throughout stand with clones of aspen in places like the nort end. Species thin stand and allow aspen to come in where it occurs and maintain white pine oak throughtout. Do not do a 2" spec with the sale.										
44	J0	7	4	50	jack pine	in process of regeneration		0	other - specify in remarks	
comnts Fmd : As of 8/9/2001 this stand will be set up with the stand to the south in the adjacent compartment in 2003 YOE. Sale # 41-023-03-01 North Forty Sale [6/23/05 BB] Sale is now closed, will need regen counts in 2009. (9/18/07 AP) Stand scarified 7/7/07 by Holli Forest Products. On regen timeclock for 2009. (3/7/08 AP) Stand seeded with snowmobile. (4/24/09 AP) Failed regen check in 2009. Cultural work was recently completed and stand needs a few years to become established. Regen count scheduled in 2011.										
49	R6	1	41	50	red pine	immature	thinning	2		
comnts Fmd : Stand is small well stocked plantation with heavy M3 understory thin stand. Stand will likely convert to hardwood at the end of its rotation.										
56	J6	14	76	50	jack pine	mature	final harvest	3	natural regeneration	
comnts Fmd : Stand set up and sold last entry but never cut because of peat soil. Stand was set up and is on being sold again with adjacent stands to the north, Fletchers Hill Jack pIne 09-09-01 Retention is along marsh edge on west side.										
57	J6	20	76	48	jack pine	mature	final harvest	3	natural regeneration	
comnts Fmd : Stand set up and sold last entry but never cut because of peat soil. Stand was set up and is on being sold again with adjacent stands to the north, Fletchers Hill Jack pIne 09-09-01										
65	A6	14	69	54	aspen (upland)	mature	final harvest	2		
comnts Fmd : Needs to be cut, mixed stand, leave some white pine of all size classes.										
70	W6	5	65	52	white pine	immature	thinning	2		
comnts Fmd : Species thin stand										

SHINGLETON FOREST MGT UNIT

Proposed Treatments
With NO Limiting Factors

Compartment: 37

Entry Year: 2011

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
80	A6	17	74	54	aspen (upland)	mature	final harvest	2		

comnts Fmd : Stand is mature aspen on a steep e-w rifge. Needs to be cut leave some white birch for seed and exclude some budding trees with red line. Leave small diameter white pine.

Total Acres..... 327

SHINGLETON FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 37

Entry Year: 2011

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
17	R6	9	91	50	red pine	mature	shelterwood-seed	3		

TREATMENT LIMITING FACTORS: Too wet

comnts Fmd : Stand is several p-ine islands connected on low ground by aspen, some jack pine mixed in. Stand is mature but access would be difficult involving a culvert and frozen road off M-94. Red Pine is healthy.

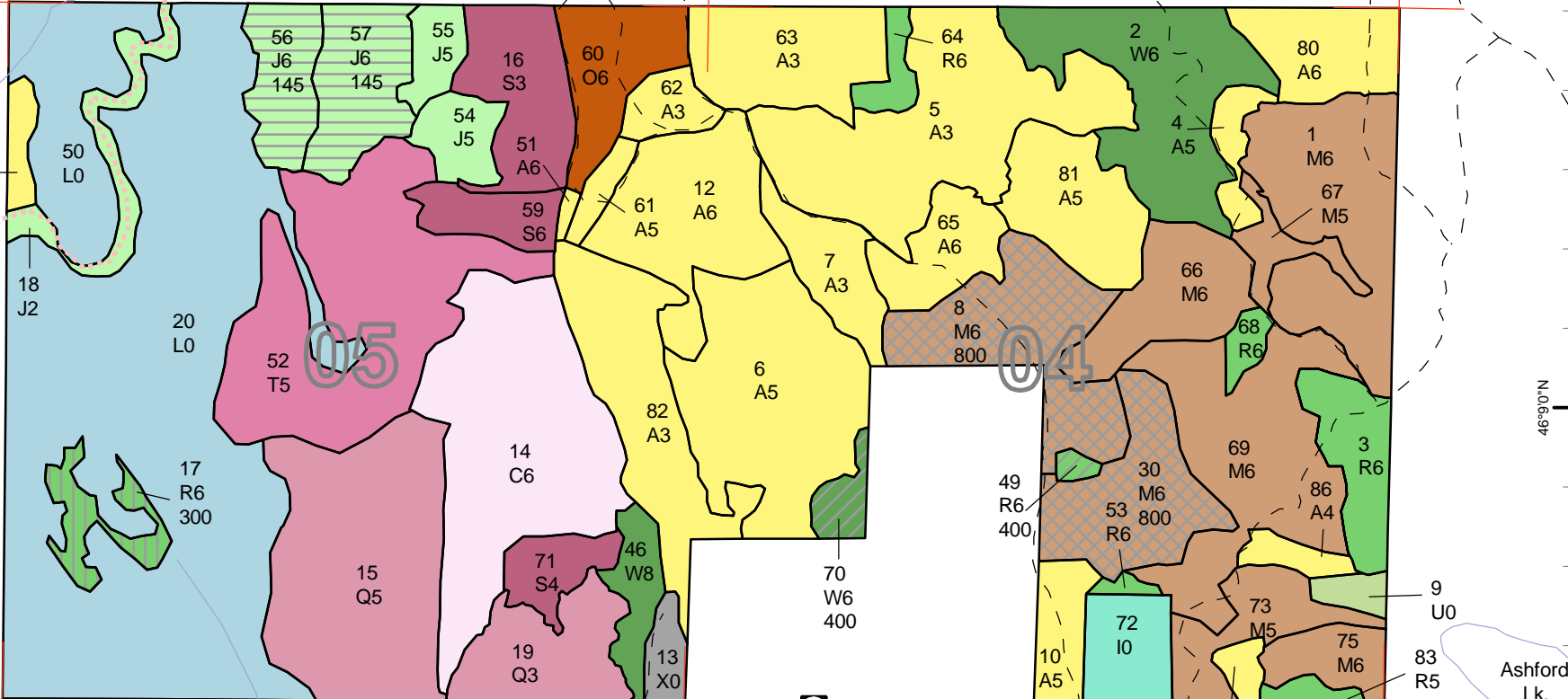
45	M6	5	76	62	northern hardwood	immature	thinning	2		
----	----	---	----	----	-------------------	----------	----------	---	--	--

TREATMENT LIMITING FACTORS: Adjacent landowner denies access

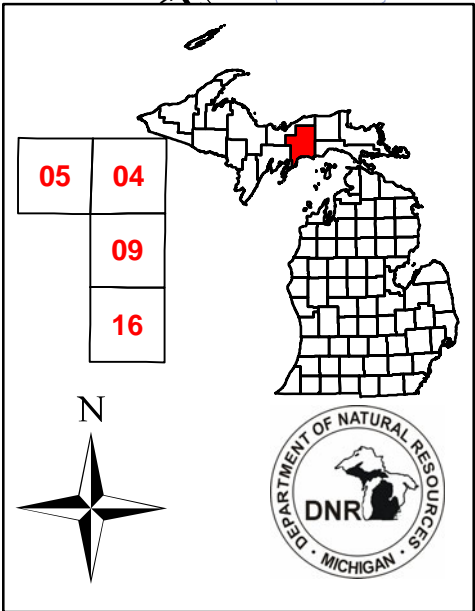
comnts Fmd : Very small land locked stand, should dispose of property.

Total Acres..... 14

Covertime & Treatment Map



Compartment 37
 T43N, R16W, Sec. 4, 5, 9, 16
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2011
 Acres: 1,955 GIS Calculated
 Stand Examiner: Robert Burnham
 Map Revised: 10/29/2009
 Map Phase: Pre-Review



Legend

- Miris Corners
- Highways
- Paved Roads
- Poor Dirt Roads
- Closed Roads
- Trails
- Water Features
- State Highway
- ORV Trails
- Snowmobile Trails
- Stand Boundaries

Treatments

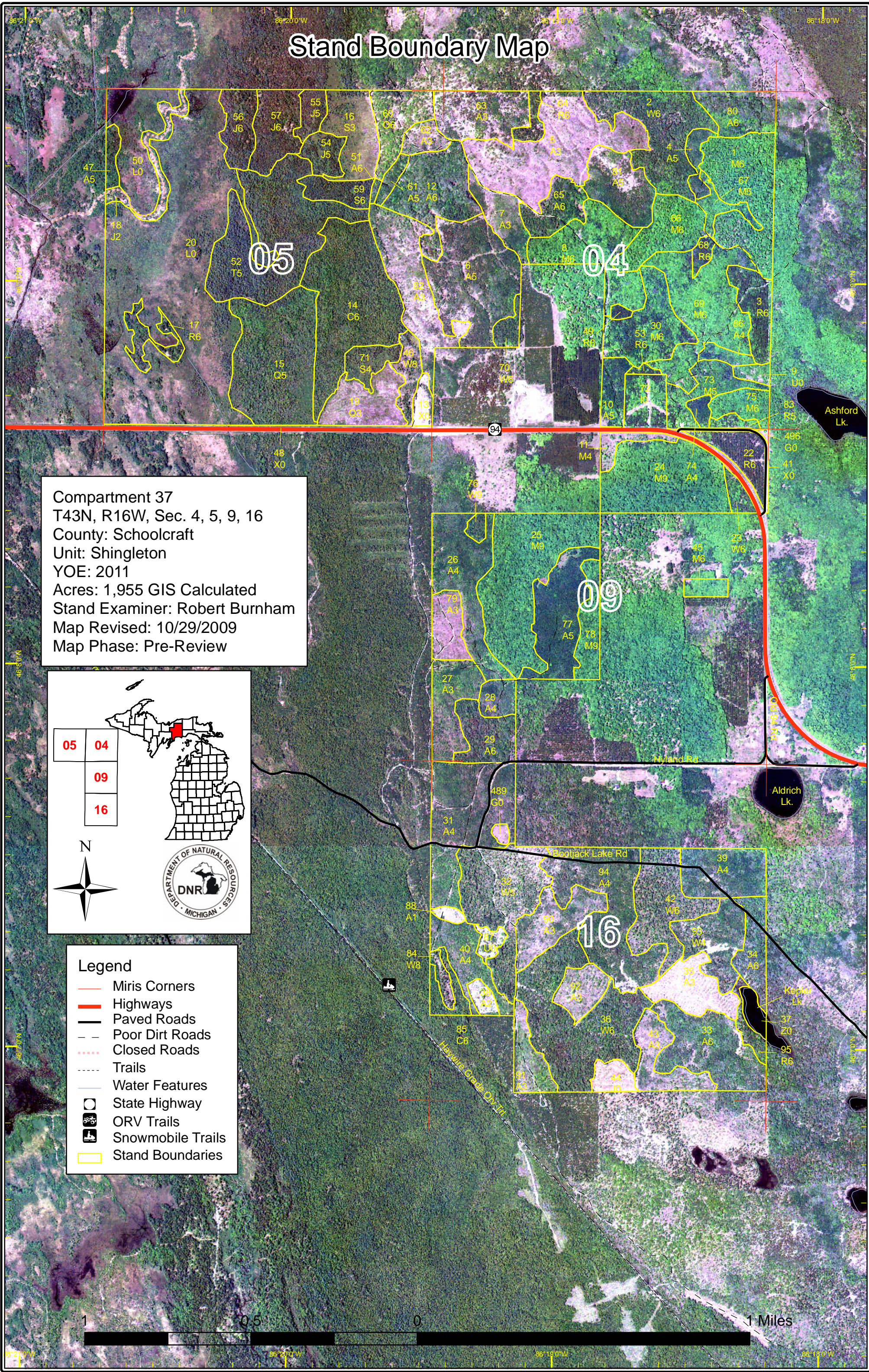
- 098 - Other
- 145 - Final harvest/Nat regen/Mechanical
- 300 - Shelterwood-seed
- 400 - Thinning
- 800 - Selection

Legend

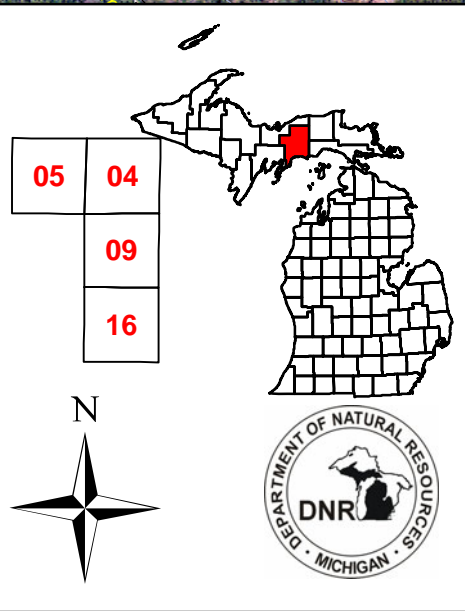
 A - Aspen	 R - Red Pine
 C - Northern White Cedar	 S - Black Spruce Swamp
 G - Grass	 T - Tamarack
 I - Local Use	 U - Upland Brush
 J - Jack Pine	 W - White Pine
 L - Lowland Brush	 X - Non-Stocked
 M - Northern Hardwoods	 Z - Water
 O - Oak	
 Q - Mixed Swamp Conifers	



Stand Boundary Map



Compartment 37
 T43N, R16W, Sec. 4, 5, 9, 16
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2011
 Acres: 1,955 GIS Calculated
 Stand Examiner: Robert Burnham
 Map Revised: 10/29/2009
 Map Phase: Pre-Review



- Legend**
- Miris Corners
 - Highways
 - Paved Roads
 - - - Poor Dirt Roads
 - - - Closed Roads
 - - - - - Trails
 - Water Features
 - State Highway
 - ORV Trails
 - Snowmobile Trails
 - Stand Boundaries



Dedicated & Proposed Special Conservation Area Map

86°20'0"W

86°19'0"W

86°18'0"W

46°30'0"N

46°30'0"N

46°80'0"N

46°80'0"N

46°70'0"N

46°70'0"N

Ashford Lk.

Old 94 Rd

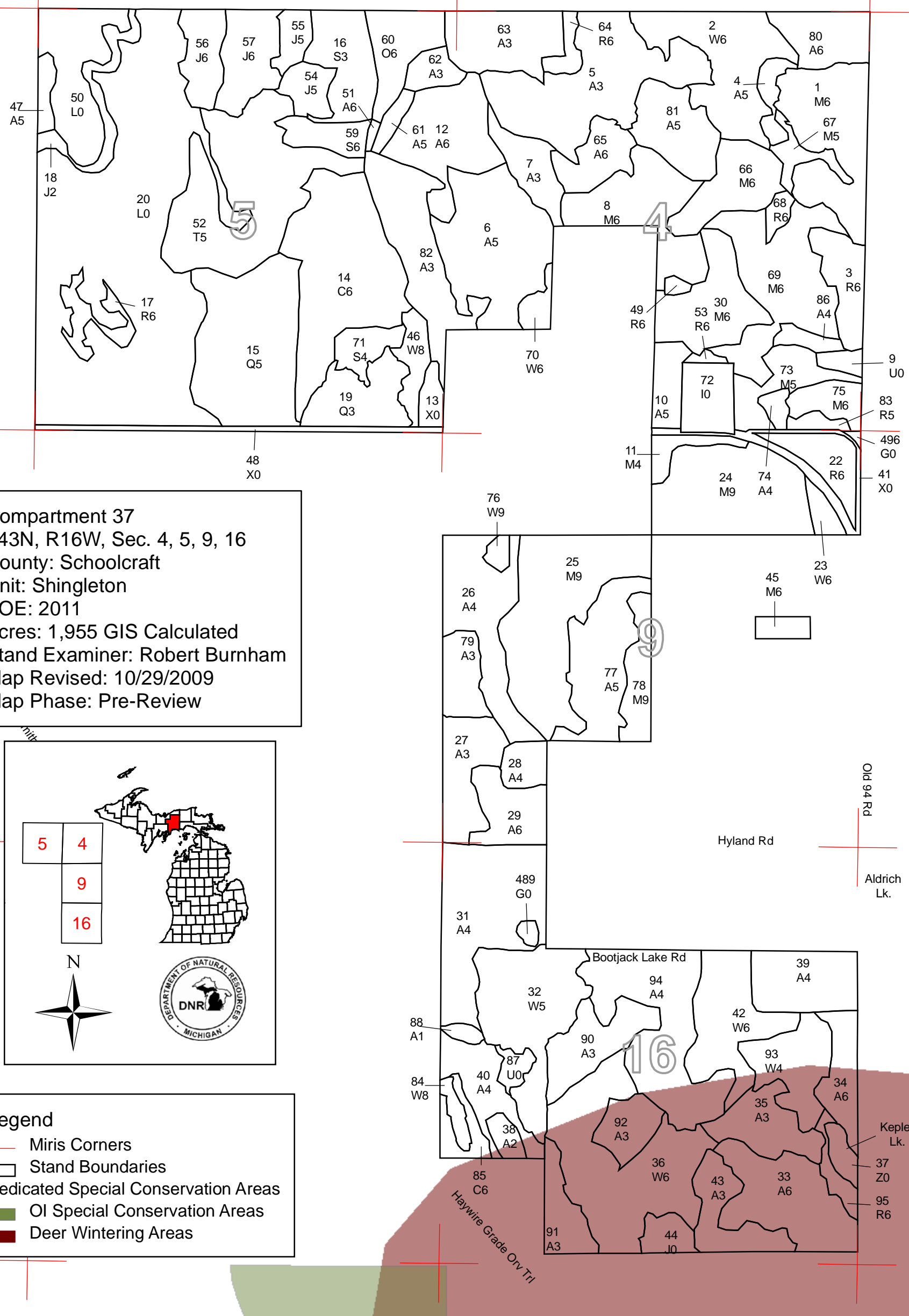
Hyland Rd

Aldrich Lk.

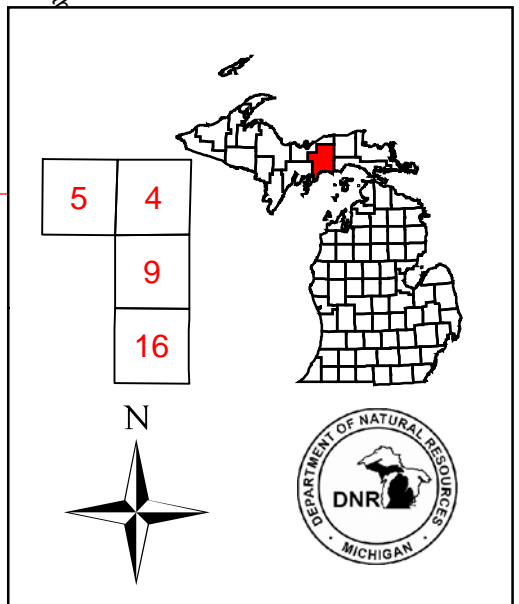
Bootjack Lake Rd

Haywire Grade Onv Trl

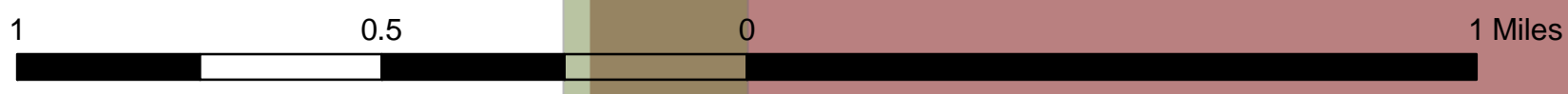
Kepler Lk.



Compartment 37
 T43N, R16W, Sec. 4, 5, 9, 16
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2011
 Acres: 1,955 GIS Calculated
 Stand Examiner: Robert Burnham
 Map Revised: 10/29/2009
 Map Phase: Pre-Review



Legend
 — Miris Corners
 □ Stand Boundaries
 ■ Dedicated Special Conservation Areas
 ■ OI Special Conservation Areas
 ■ Deer Wintering Areas



86°20'0"W

86°19'0"W

86°18'0"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.
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.
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.