



**SHINGLETON FOREST MANAGEMENT UNIT  
COMPARTMENT REVIEW PRESENTATION**

**COMPARTMENT # 90 ENTRY YEAR: 2010**

**Compartment Acreage: 1,765 County: Delta**

---

**Revision Date: 6/11/2008**

**Stand Examiner:** Adam Petrelius

**Legal Description:** T40N R18W Sections 13-16

**RMU (if applicable):**

**Management Goals:** The main goal of this compartment is to conduct multiple resource management for current and future generations.

**Soil and Topography:** The topography within the compartment is mostly flat with steeper hills bordering Halfway Lake, Lake 13, and Lake Michigan. Elevation values range between 581-728 feet. Most of the compartment is forested with only a few stands classified as marsh or treed bog. It has a diverse mixture of forest cover types including lowland conifers, aspen, jack pine, red pine, northern hardwood, and oak. The major soil types found are Rubicon and Roscommon. Additional soil types are Augres, Carbondale, Rousseau, Dawson, Duel, Kinross, Iosco, and Croswell. Habitat types within the compartment, in order of abundance, are PVE, Unclassified Lowland, PArVAa, and PArV. It lies within the Thompson Plains Land Type Association, and the Garden Thompson Plain Management Area.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** State land within this compartment was acquired between 1907 and 1974. The compartment boundary borders both private and state land. Camps occupy some of the private land. The compartment is used mostly by hunters, ORV users, and snowmobile riders.

**Unique, Natural Features (include only non-site specific and non-sensitive information):** Stands of oak, a rare cover type in the Shingleton Management Unit, are found within the compartment. These stands are actively managed for timber and wildlife purposes.

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

**Special Management Designations or Considerations:** The western portion of the compartment, and land surrounding Lake 13 and Halfway Lake is classified as potential old growth.

**Watershed and Fisheries Considerations:** Halfway Lake is a 15-acre lake found within this compartment. The maximum depth is approximately 5 feet and the shoreline is surrounded by a bog mat. The water is highly stained and pH was measured at 5.2 units. No information exists in the files regarding composition of the fish community. Lake 13 is also found within this compartment. No information exists in the files regarding this waterbody.

**Wildlife Habitat Considerations:** Compartment 90 is located on the north end of the Garden Peninsula within the Escanaba/Door Peninsula ecological sub-subsection; the western boundary of the compartment abuts Lake Michigan. Pre-settlement land cover consisted of a mix of wetlands, pine, and oak, with lesser amounts of northern hardwoods and hemlock in the north. Aspen is now an important component of the compartment, mixing with the pine and hardwood species. Aspen associations are at various age classes. Wildlife objectives include providing age class diversity for aspen association stands, maintaining openings, and maintaining cedar stands as well as leaving oak and hemlock where present. Any oak, hemlock, and most cedar should be retained in areas to be harvested for a source of hard mast, to provide cover, and to maintain diversity.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of lacustrine (lake) sand and gravel. The glacial drift thickness varies between 10 and 200 feet. The Silurian Manistique and Burnt Bluff Groups and Cabothead Shale subcrop below the glacial drift. The Burnt Bluff is quarried and the Manistique could be used for stone. A sand pit is located in Section 16, but there may be some potential for gravel. There is no commercial oil and gas production in the UP.

**Vehicle Access:** Except for the areas containing low ground, the compartment has a good system of forest roads that can be driven during the snow free months. A few of the forest roads are gated when entering private ownership. State Highway M183 travels along the western boundary. Access to the interior portions can be gained by traveling south of US2 on the Cooks/Garden Grade snowmobile trail

**Survey Needs:** None needed.

**Recreational Facilities and Opportunities:** There are no recreational facilities located within the compartment, but one snowmobile trail exists. The Cooks/Garden snowmobile trail travels through the middle of the compartment and receives moderate use by ORV riders also. Opportunities for hunting, fishing, and other forms of recreational activity exist within or adjacent to this compartment.

**Fire Protection:** Response time to fires within this compartment from the Thompson field office will be moderate. The compartment receives moderate use throughout fire season and human caused fires are a concern. Both spring and summer fires are likely to occur here and fuel types are highly variable. Lake Michigan, Halfway Lake, and Lake 13 can be used as a water source if needed.

**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**

11/5/2008 10:44:17 AM

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

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

DELTA COUNTY

COMPARTMENT: 90

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		46	207	66	398		11	7											735
Black Spruce					47		6												53
Cedar							35			37	5								77
Grass	23																		23
Hemlock										17		7							24
Jack Pine				35	4	34		24											97
Lowland Poplr							17												17
Marsh	18																		18
Mx Swmp Cnfr				24	19		24	50	13	25									155
Non Stocked	4																		4
Oak								25	134										159
Red Pine			26			11													37
Spruce Fir								94											94
Swamp Hrdwds							19												19
Treed Bog	101																		101
Upland Hdwds									106									16	122
Water	30																		30
<b>Total</b>	<b>176</b>	<b>46</b>	<b>233</b>	<b>125</b>	<b>468</b>	<b>45</b>	<b>112</b>	<b>200</b>	<b>253</b>	<b>79</b>	<b>5</b>	<b>7</b>						<b>16</b>	<b>1765</b>

11/5/2008 10:44:19 AM

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

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

DELTA COUNTY

COMPARTMENT: 90

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	735																										735
S Black Spruce		53																									53
C Cedar				77																							77
G Grass					23																						23
H Hemlock						24																					24
J Jack Pine							97																				97
P Lowlnd Poplr									17																		17
N Marsh										18																	18
Q Mx Swmp Cnfr											155																155
X Non Stocked													4														4
O Oak														159													159
R Red Pine															37												37
F Spruce Fir																		94									94
E Swamp Hrdwds																			19								19
D Treed Bog																						101					101
M Upland Hdwds																								122			122
Z Water																									30		30
<b>Total</b>	735	53		77	23	24	97			17	18	155	4	159		37			94	19		101		122	30		1765

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

DELTA COUNTY

COMPARTMENT: **90**

**Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS**

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	9884 Cds	Hardwood	2772 Cds
Hardwood	427 Mbf	Hardwood	8 Mbf
Softwood	6475 Cds	Softwood	1649 Cds
Softwood	88 Mbf	Softwood	9 Mbf
Sum TotVol	17389 Cds	Sum CutVol	4455 Cds
<b>Total Cmpt Acres</b>		Acres Proposed For Cut.....	
1765		207	

## SHINGLETON FOREST AREA

Proposed Treatments  
With NO Limiting Factors

Compartment: 90

Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
<b>6</b>	<b>A6</b>	11	56	63	aspen (upland)	immature	final harvest	1	natural regeneration	
comnts Fmd : Southern boundary of stand is a steep ridge. Paint line should be kept on top of this ridge to avoid entering the riparian area of Lake 13. Paint line on northern boundary can be placed at bottom of ridge in adjacent stand to allow for easier operability.										
Retention: Leave hemlock, oak, cedar, and some supercanopy white pine. Stand should regenerate to aspen, but a representative mixture of the current species present onsite is acceptable. Impacts to snowmobile trail should be minimized.										
<b>15</b>	<b>M6</b>	47	71	60	northern hardwood	immature	final harvest	1		
comnts Fmd : Stand is a mixture of soft maple, paper birch, aspen, and mixed softwood. Stand will likely regenerate to same mixture, which is acceptable. Some areas of stand are wet and winter logging may be necessary.										
Retention: Do not cut hemlock, cedar, and oak. Hemlock and cedar occur in patches, some of which may be too thick to operate. These may need to be excluded from sale and saved as retention patches. Hemlock regeneration should be protected with timbersale spec.										
A small drainage is located within stand and should be protected. Buffer will be variable widths due to topography and species composition. Impacts to snowmobile trail should be minimized.										
<b>23</b>	<b>R6</b>	5	46	53	red pine	immature	thinning	1		
comnts Fmd : Stand was cut in 2001 16-00 Sand-Cut Collage. Thin to 120 basal area. Do not cut oak. Maple and cherry should be left unless they need to be cut for operability.										
<b>27</b>	<b>P6</b>	17	51	54	balsam poplar & swamp aspen and swamp white birch	mature	final harvest	1		
comnts Fmd : Stand is all low ground, and previously labeled as too wet. Mixture of paper birch, balsam poplar, aspen, and mixed conifers. Stand will likely regenerate to same mixture, which is acceptable. Survey work may be needed.										
Retention: Small creek flows through middle of stand. Buffer will be variable widths depending on topography and tree species composition. It should be used to exclude any thick patches of cedar and hemlock. Leave hemlock, cedar, and some supercanopy white pine.										
<b>41</b>	<b>F6</b>	94	58	49	spruce-fir (uplands- including upland black spruce)	mature	final harvest	1		
comnts Fmd : High and low ground present within stand. It is an even mixture of fir, paper birch, and soft maple. Some aspen is mixed in the stand along with some thicker pockets of cedar and hemlock. Stand will likely regenerate to similar species composition which is acceptable.										
Retention: Leave hemlock, most of the cedar, oak, and some supercanopy white pine. Portions of stand will have areas of cedar that are too thick to operate. Purchaser should be allowed to cut some cedar within the sale area to allow for operability. Stand contains some small creeks. Buffer widths will be variable due to topography and species composition along these creeks. Cedar and hemlock are concentrated along these creeks and buffers can be widened to exclude thicker patches of cedar and hemlock.										
<b>43</b>	<b>O6</b>	3	71	55	oak	immature	thinning	2		
comnts Fmd : Even mixture of jack pine and oak. Decent amount of oak regeneration. Species thinning. Cut all species except oak and red pine. Oak regeneration should be protected with timbersale spec.										
Retention: Leave all oak and red pine.										
<b>49</b>	<b>J6</b>	11	60	59	jack pine	mature	final harvest	2	planting	
comnts Fmd : Stand is mostly jack pine. A clone of aspen is present in the east. There are a few small openings located within the stand. Planting may be a better option than scarification. Cut all species except oak and red pine. Acceptable alternative management objectives include a similar mixture of species currently located onsite.										
Retention: Leave all oak and red pine.										
<b>54</b>	<b>R6</b>	2	46	57	red pine	immature	thinning	1		
comnts Fmd : Stand was cut in 2001 16-00 Sand-Cut Collage. Thin to 120 basal area. Do not cut oak. Maple and cherry should be left unless they need to be cut for operability.										
<b>55</b>	<b>R6</b>	1	46	48	red pine	immature	thinning	1		
comnts Fmd : Stand was cut in 2001 16-00 Sand-Cut Collage. Thin to 120 basal area. Do not cut oak.										

**SHINGLETON FOREST AREA**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 90**

**Entry Year: 2010**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status	
<b>58</b>	<b>J6</b>	13	60	50	jack pine	mature	final harvest	2	planting		
comnts Fmd : Mostly jack pine with some aspen and small open areas. Cut all species except red pine and oak. Acceptable alternative management objectives include a representative species mixture currently found onsite.											
Retention: Leave all oak and red pine.											
<b>80</b>	<b>R6</b>	2	46	50	red pine	immature	thinning	1			
comnts Fmd : Stand was cut in 2001 16-00 Sand-Cut Collage. Thin to 120 basal area. Do not cut oak. Maple and cherry should be left unless they need to be cut for operability.											
<b>81</b>	<b>R6</b>	1	46	48	red pine	immature	thinning	1			
comnts Fmd : Stand was cut in 2001 16-00 Sand-Cut Collage. Thin to 120 basal area. Last time every other row was cut, and trees located in this stand have larger diameter and are shorter. Do not cut oak. Maple and cherry should be left unless they need to be cut for operability.											
<b>404</b>	<b>G0</b>	18		62	grass	nonstocked		0	opening maintenance		
comnts Fmd : Filling in with jack pine and aspen. Opening maintenance with handtools.											
<b>Total Acres.....</b>		<b>225</b>									

**Proposed Treatments  
With Limiting Factors**

**Compartment: 90**

**Entry Year: 2010**

---

<b>Stand</b>	<b>Cover Type</b>	<b>Acres</b>	<b>Age</b>	<b>Site Index</b>	<b>Mgt Obj</b>	<b>Condition</b>	<b>Method Cut</b>	<b>Harvest Priority</b>	<b>Cultural Need</b>	<b>FD Status</b>
--------------	-----------------------	--------------	------------	-----------------------	--------------------	------------------	-----------------------	-----------------------------	--------------------------	----------------------

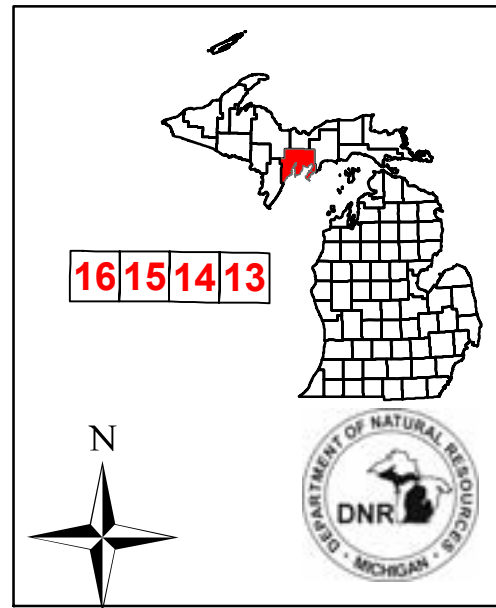
---

TREATMENT LIMITING FACTORS:

---

**Total Acres..... 0**

Compartment 90  
 T40N, R18W, Sec. 13-16  
 County: Delta  
 Unit: Shingleton  
 YOE: 2010  
 Acres: 1,765 GIS Calculated  
 Stand Examiner: Adam Petrelus  
 Map Revised: 10/30/2008  
 Map Phase: Pre-Review



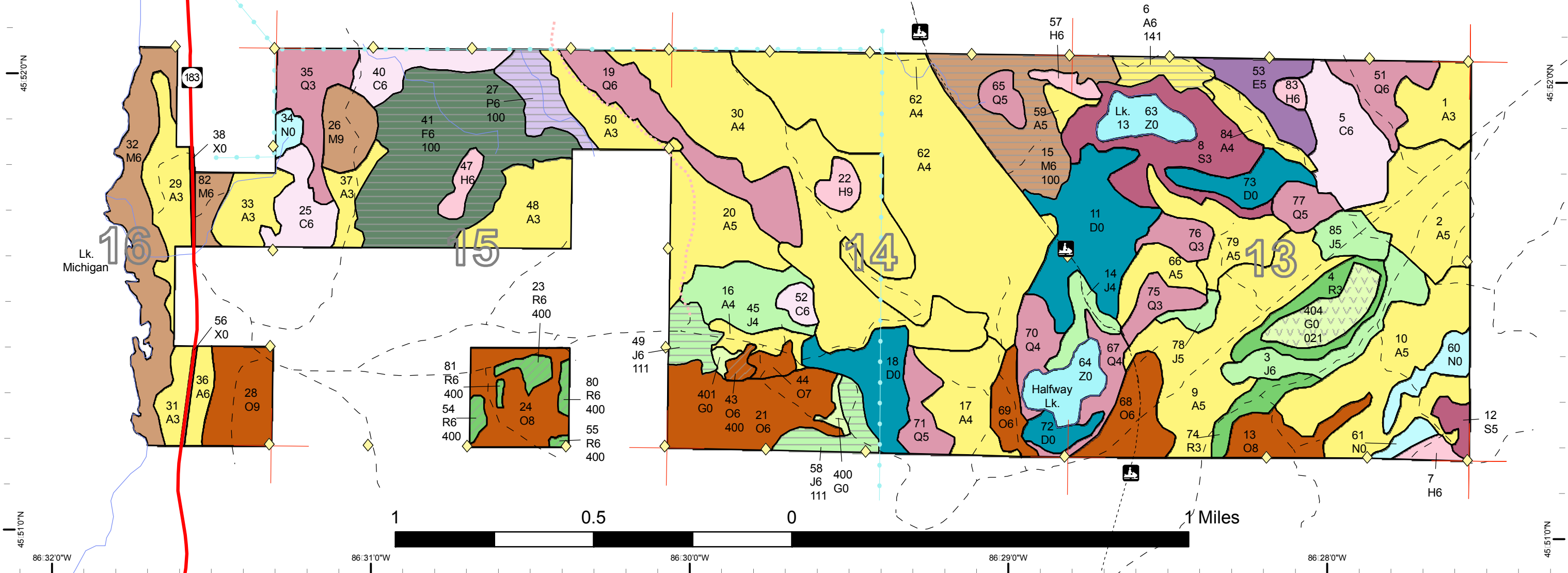
# Covertypes & Treatment Map

**Legend**

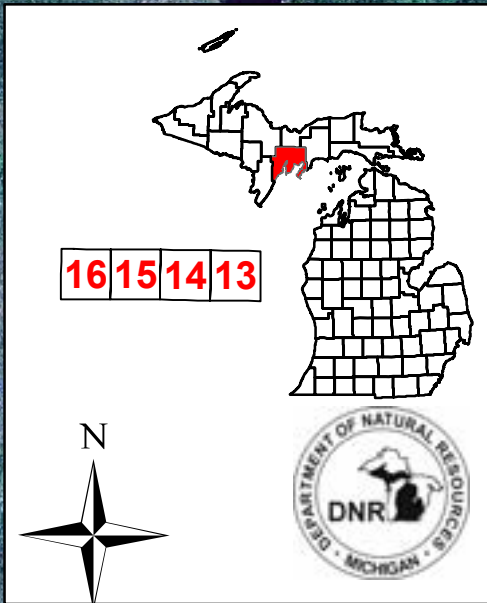
— Miris Corners	021 - Opening maintenance/Hand tools
— Highway	100 - Final Harvest
- - - Poor Dirt Road	111 - Final Harvest/Planting/Hand Tools
... Closed Road	141 - Final Harvest/Natural Regeneration/Hand Tools
— Powerline	400 - Thinning
... Trails	
○ State Highway	
⊞ Snowmobile Trails	
□ Stand Boundaries	

**Cover Types**

A - Aspen	M - Northern Hardwoods
C - Northern White Cedar	N - Marsh
D - Treed Bog	O - Oak
E - Swamp Hardwoods	P - Balsam Poplar, Swamp Aspen, Swamp White Birch
F - Upland Spruce or Fir	Q - Mixed Swamp Conifers
G - Grass	R - Red Pine
H - Hemlock	S - Black Spruce Swamp
J - Jack Pine	X - Non-Stocked
	Z - Water



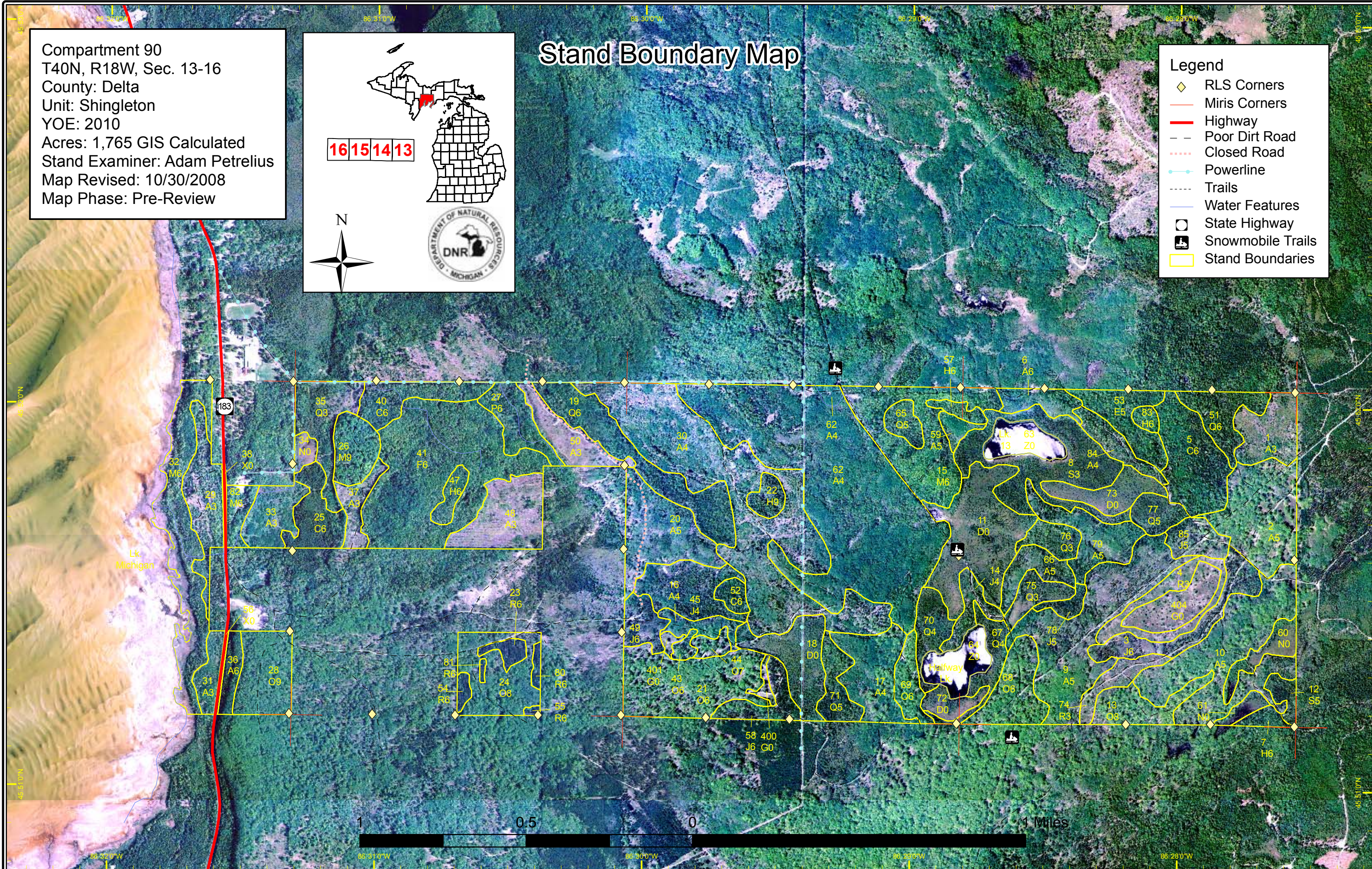
Compartment 90  
 T40N, R18W, Sec. 13-16  
 County: Delta  
 Unit: Shingleton  
 YOE: 2010  
 Acres: 1,765 GIS Calculated  
 Stand Examiner: Adam Petrelus  
 Map Revised: 10/30/2008  
 Map Phase: Pre-Review



16151413

# Stand Boundary Map

- Legend**
- RLS Corners
  - Miris Corners
  - Highway
  - Poor Dirt Road
  - Closed Road
  - Powerline
  - Trails
  - Water Features
  - State Highway
  - Snowmobile Trails
  - Stand Boundaries







**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	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.