



**FOREST MANAGEMENT UNIT  
COMPARTMENT REVIEW PRESENTATION**

**COMPARTMENT #66 ENTRY YEAR: 2010**

**Compartment Acreage: 1772**

**County: Gladwin**

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**Draft**

**Revision Date:** August 2008, 10/20/08

**Stand Examiner:** Steven Nyhoff

**Legal Description:** T18N R2E Sections 5, 8, & 17

**RMU (if applicable):**

**Management Goals:**

The compartment has been heavily managed for aspen and jack pine in the past 40 years. In addition, many of the red pine stands have been managed in the past 20 years by removing hardwoods and jack pine. Now many of these stands have advanced regeneration of hardwood in them. Some of this is desirable to convert marginal red pine sites to upland hardwoods sites. However, in some of the better red pine sites prescribed fire may need to be used to control encroaching red maple to maintain the sites for red pine. Overall, most of the past harvests have been final harvests. This is due to the large percentage of pioneer species in the overstory, such as aspen and jack pine.

Continue to manage the compartment for the current cover types. However, look for areas of older aspen and young pole size aspen to cut in order to break up the aspen age class distribution. In addition, look at the red pine resource to evaluate what can be kept in red pine and what should be converted to upland hardwoods.

**Soil and Topography:**

The soils under the compartment are part of the Saginaw Bay Glacial Lake Plain. Because of this much of the soils are well-drained loose sand having a seasonally high water table. The main soil associations are Croswell associations and AuGres associations. There are also some remnants of glacial dunes with droughty Rubicon associations. Lastly, there are large shallow depressions with poorly drained Roscommon soils.

The topography is generally flat with very little elevation change except along the Molasses River and Fish Creek. These watercourses usually have extensive flood plains associated with them, and the flood plains are often bordered with high banks.

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

The compartment is a contiguous block of state ownership. There are areas of private ownership to the east, south and west of the compartment, these range from 10 to 160 acres. They are used for permanent and seasonal residences, as well as recreational properties.

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

There are no records of endangered or threatened species in the compartment and no species were located during the inventory process. There are records of Ellipse mussel to the north and west and Slippershell mussel to the north.

**Archeological, Historical, and Cultural Features**

There are no records of sites in the compartment and no sites were located during the inventory process.

## **Special Management Designations or Considerations:**

None

## **Watershed and Fisheries Considerations:**

The compartment has two watercourses running through it, the Molasses River in section 5 and Fish Creek that runs through much of the compartment. Both of these are warm water fisheries. Therefore, BMPs need to be addressed when harvesting near these streams. However, both of these watercourses are bounded by a large flood plain that has steep banks. Therefore, harvesting near them will be limited.

## **Wildlife Habitat Considerations:**

No major concerns noted. Continue to manage for traditional wildlife species.

## **Mineral Resource and Development Concerns and/or Restrictions:**

Surface sediments consist of lacustrine (lake) sand and gravel and fine-textured till. The glacial drift thickness varies between 100 and 200 feet. Beneath the Glacial Drift are the Pennsylvanian Grand River and Saginaw Formations. The Saginaw Formation is used for clay/shale in other areas of the State. This area is predominantly sand, and gravel potential in the compartment is considered limited. This area has had little oil and gas activity. North Buckeye Field is located four miles to the west. The field, discovered in 1936, has produced over 21 MBO from the Devonian Dundee Formation. There are no current State oil and gas leases in the compartment, but recent leasing occurred just to the west in May 2008.

## **Vehicle Access:**

Access to the compartment is good off M-61, Deer Road, and Wildwood Road. There are also numerous two-tracks, which provide good access. Some of these have also been improved.

## **Survey Needs:**

There was a retracement survey done in South Grim Township in the 1990s. Therefore, no survey is needed at the current time.

## **Recreational Facilities and Opportunities:**

The Midland to Mackinaw Boy Scout Hiking trail runs the entire length of the compartment. This trail needs some attention especially north of M-61. Currently it is routed through several wet areas. In these areas what was placed in the trail to facilitate hiking is now starting to break down and they need to be replaced.

This area is also heavily used for hunting and the gathering of wild food. In addition, the Gladwin ORV Route used to go through the compartment from M-61 to Mosquito Alley Truck Trail, but it has been rerouted. However, this trail is still heavily used to access state land. Currently there are parts of the old route with large, wet holes, which hinder access during certain times of the year. The Old ORV route is being proposed to be closed in the NE ¼ of Section 5.

## **Fire Protection:**

There has been some fire activity in the past. Most of the fires have been kept small because of good access. In addition, the area has a mixture of cover types that hinder fire development. However, it is also heavily used by the public, so the overall fire danger is moderate.

## **Additional Compartment Information:**

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

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

GLADWIN COUNTY

COMPARTMENT: 66

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		75	60	83	4	481			18	8									729
Bog or Marsh	7																		7
Cedar													5						5
Jack Pine		26	182	63				11	27	6									315
Lowlnd Brush	102																		102
Marsh	9																		9
Non Stocked	9																		9
Oak		84		36					10	70									200
Red Pine							9		49	39									97
Swamp Hrdwds			52	38						115								61	266
Upland Hdwds		33																	33
<b>Total</b>	<b>127</b>	<b>218</b>	<b>294</b>	<b>220</b>	<b>4</b>	<b>481</b>	<b>9</b>	<b>11</b>	<b>104</b>	<b>238</b>			<b>5</b>					<b>61</b>	<b>1772</b>

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

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

GLADWIN COUNTY

COMPARTMENT: 66

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	729																										729
V Bog or Marsh			7																								7
C Cedar				5																							5
J Jack Pine							315																				315
L Lowlnd Brush									102																		102
N Marsh											9																9
X Non Stocked													9														9
O Oak														200													200
R Red Pine															68									29			97
E Swamp Hrdwds																			266								266
M Upland Hdwds																								33			33
<b>Total</b>	729		7	5			315		102		9		9	200		68			266					62			1772

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

GLADWIN COUNTY

COMPARTMENT: **66**

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

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	6783 Cds	Hardwood	2036 Cds
Hardwood	818 Mbf	Hardwood	430 Mbf
Softwood	1864 Cds	Softwood	1264 Cds
Softwood	615 Mbf	Softwood	416 Mbf
Sum TotVol	11513 Cds	Sum CutVol	4992 Cds
<b>Total Cmpt Acres</b>		Acres Proposed For Cut.....	324
1772			

## GLADWIN FOREST MGT UNIT

Proposed Treatments  
With NO Limiting Factors

Compartment: 66

Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
3	R6	9	50	50	red pine	immature	final harvest	1	planting	
comnts Fmd : The stand appears to have been marked but not treated. The terrain is undulating and site indexes range from 45 -55 with an average of 50. Clearcut the stand and replant to red pine. The soils under the stand go from AuGres to Grayling to Rubicon.										
14	O8	52	80	56	oak	mature	final harvest	1	natural regeneration	
comnts Fmd : The north edge of the stand is along M-61 is an E-Type but it is small in size. The stand is undulating and it is mainly upland. It appears not to have been cut when the sale was completed in 1981. Therefore, it is acting as a shelterwood harvest. Harvest the stand, as a 4-inch clearcut marking 10-20BA to leave for retention, may want to leave more along M-61 for visual. This is also, where the highest volume is located. The stand is expected to regenerate to a mixture of oak and swamp hardwoods, if not interplant red pine. The retention for the stand when it is harvested should be placed to protect traditional hunting camp.										
19	R9	9	77	52	red pine	mature	final harvest	1	planting	
comnts Fmd : The stand is on a knob that's isolated by low and wet ground. Harvest the stand by clearcut then plant it to red pine.										
20	A9	8	86	50	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is an over mature aspen stand that needs to be cut. Therefore, final harvest the stand to 4-inch DBH. The stand is expected to regenerate to a mixture of oak, aspen, and maple, if not interplant red pine. The regeneration for the stand should be placed around the drainage in the west end.										
21	J6	27	70	40	jack pine	mature	final harvest	1	planting	
comnts Fmd : The stand is undulating and has a mixture of uplands and lowlands. Overall, the stand is mature and needs to be harvested as a 2-inch clearcut with retention. Then it should be replant with jack pine. The retention areas should be used to break up the visual impact of the harvest.										
24	R9	29	78	55	northern hardwood	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand has some wet drains running through it. Overall, the stand is upland and oak increases going south. Harvest as a final harvest with a 4-inch cutting spec. The stand is expected to convert to an upland hardwoods mixed with oak and maple with some red pine and white pine. For retention, mark 1-2 trees per acre of both pine and oak. The retention for the stand when it is harvested should be placed to protect traditional hunting camp and break up the visual impact of the sale.										
26	A5	5	76	46	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is very wet with isolated dry knolls. Harvest will need to be bone during dry or frozen condition.										
27	R6	31	77	50	red pine	mature	final harvest	1	planting	
comnts Fmd : The stand needs to be clearcut, then burned, then planted to red pine. When harvesting and planting is done, the stand is expected to be a mixture of red pine, jack pine, and oak. It has had a small fire in it that has controlled the maple. The retention for the stand when it is harvested should be placed to protect traditional hunting camp and break up the visual impact of the sale.										
32	O5	18	84	50	oak	immature	final harvest	1	natural regeneration	
comnts Fmd : The stand is on a dry ridge. The over story can be removed from the stand. Harvest as a 4-inch clearcut with retention. The retention should be individually marked trees and should be around 3% BA. The stand is expected to regenerate to a mixture of oak and aspen, if not interplant jack pine.										
44	E9	24	82	65	swamp hardwoods	mature	final harvest	2	natural regeneration	
comnts Fmd : The stand is a mixture of uplands and lowlands. Some of the lowlands are too wet too harvest. The uplands in the stand need to be harvested. Final harvest the operable areas by a 2-inch clearcut with retention. The retention should be kept to the low and wet areas and, because of the terrain the timber sale acres maybe 25% less than the OI acres. The stand is expected to regenerate to a mixture of aspen and swamp hardwoods, if not interplant with jack pine.										
48	A5	82	40	50	aspen (upland)	immature	final harvest	1	natural regeneration	
comnts Fmd : The stand has a mixture of uplands and lowlands with undulating terrain. There are also inclusions of G, L, and V-Types openings. There are also inclusions of E-Types. The aspen is doing best in the depressions as long as they're not too wet. The south end of the stand has AuGres soils and the north end has Crosswell soils. Harvest the stand as a final harvest during winter to minimize disturbance to ground cover. The stand should be burned the spring after the harvest if fuels are adequate. This is to stimulate regeneration. Burns should remove some but not all the duff.										
57	A5	13	70	50	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is undulating. It has a mixture of uplands and lowlands. There are areas of good oak regeneration. It should be final harvested with a 2-inch clearcut with retention. It is expected to regenerate to a mixture of oak and maple, if not interplant jack pine. The retention could be set up to minimize the visual impact of the harvest.										
58	J9	11	58	50	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is a mature stand and it can be harvested as a final harvest with retention. The retention should be done in patches and be kept around 3%. The stand is expected to regenerate to a mixture of jack pine and oak, if not interplant jack pine.										

**GLADWIN FOREST MGT UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 66**

**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>FDF Status</b>
<b>Total Acres.....</b>		<b>318</b>								

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
8	A6	6	40	60	aspen (upland)	immature	final harvest	2	natural regeneration	

TREATMENT LIMITING FACTORS: Blocked by other physical obstacle

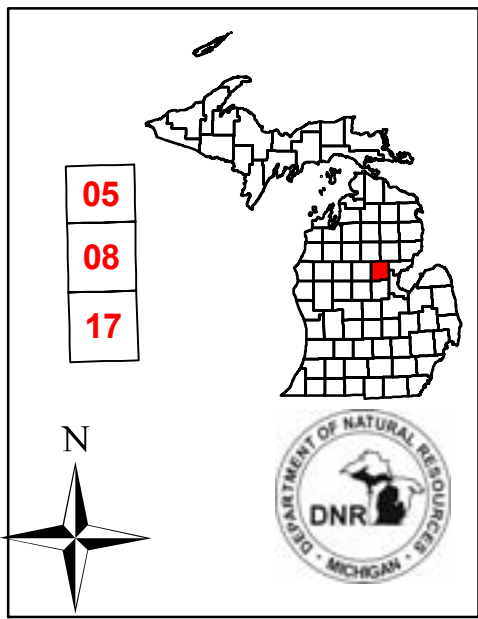
comnts Fmd : The stand needs to be habitat cat because it is on an island surrounded by L-Types and Fish Creek. The stand is expected to regenerate naturally.

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Total Acres..... 6

# Covertypes & Treatment Map

Compartment 66  
 T18N, R2E, Sec. 5, 8, 17  
 County: Gladwin  
 Unit: Gladwin  
 YOY: 2010  
 Acres: 1,772 GIS Calculated  
 Stand Examiner: Steven Nyhoff  
 Map Revised: 10/31/2008  
 Map Phase: Pre-Review



**Legend**

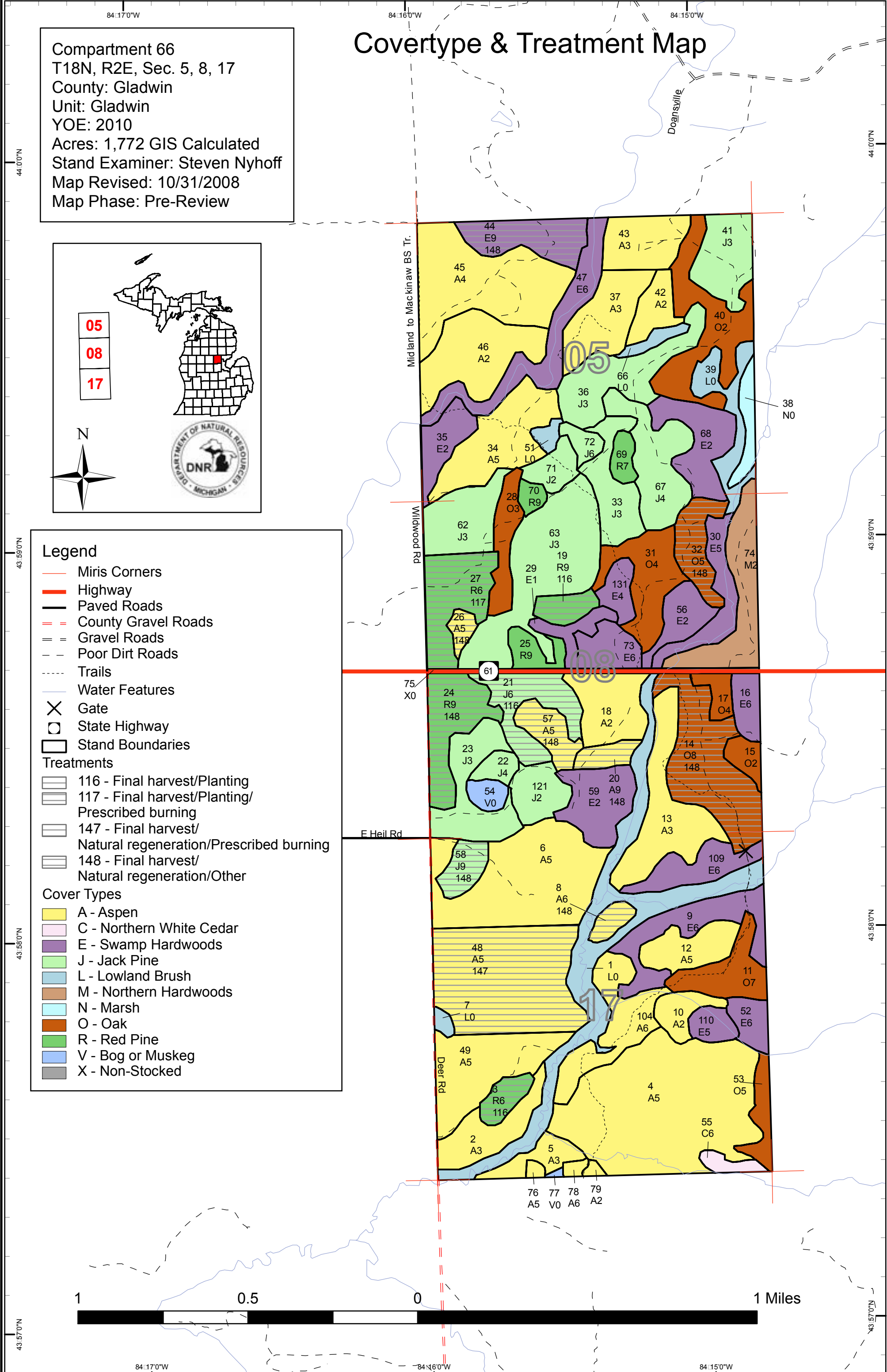
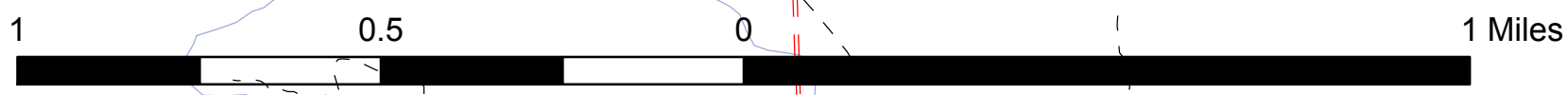
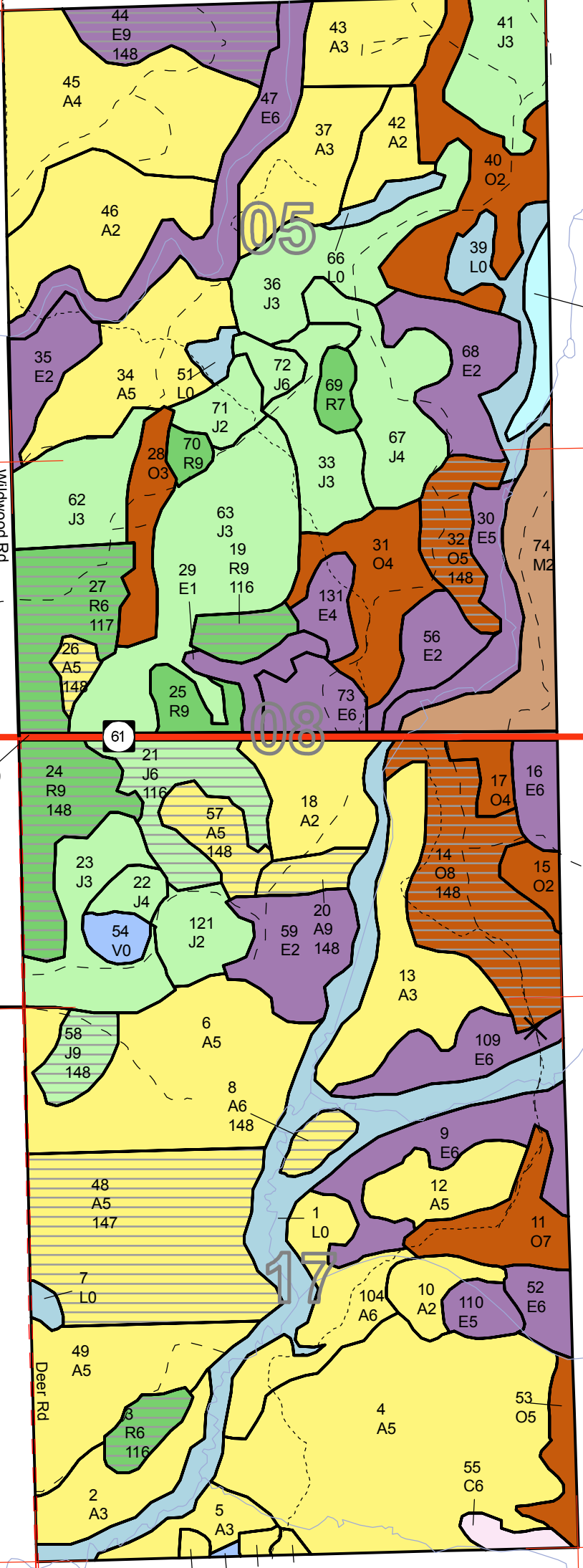
- Miris Corners
- Highway
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Trails
- Water Features
- ⊗ Gate
- State Highway
- Stand Boundaries

**Treatments**

- ▨ 116 - Final harvest/Planting
- ▨ 117 - Final harvest/Planting/Prescribed burning
- ▨ 147 - Final harvest/Natural regeneration/Prescribed burning
- ▨ 148 - Final harvest/Natural regeneration/Other

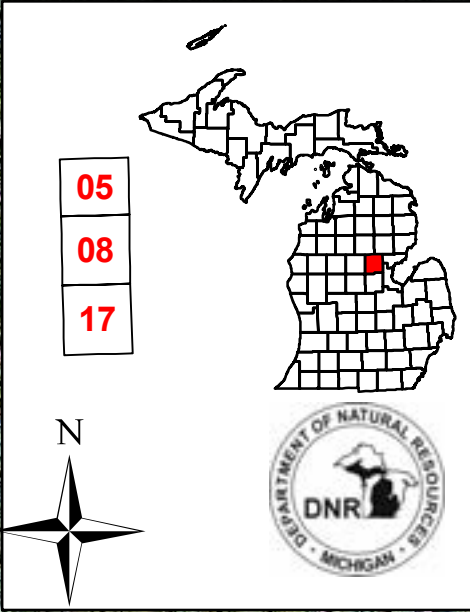
**Cover Types**

- A - Aspen
- C - Northern White Cedar
- E - Swamp Hardwoods
- J - Jack Pine
- L - Lowland Brush
- M - Northern Hardwoods
- N - Marsh
- O - Oak
- R - Red Pine
- V - Bog or Muskeg
- X - Non-Stocked

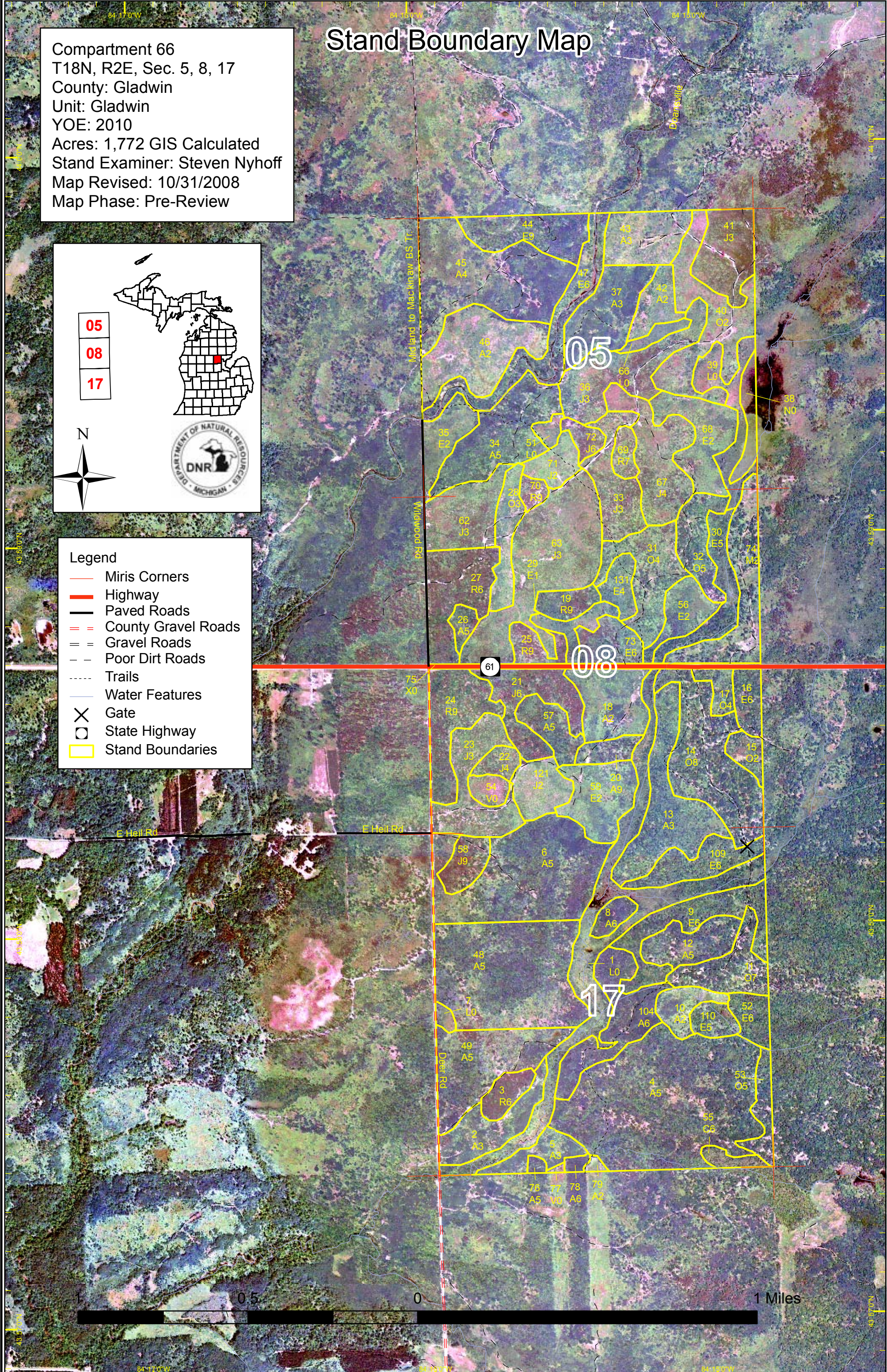


# Stand Boundary Map

Compartment 66  
 T18N, R2E, Sec. 5, 8, 17  
 County: Gladwin  
 Unit: Gladwin  
 YOE: 2010  
 Acres: 1,772 GIS Calculated  
 Stand Examiner: Steven Nyhoff  
 Map Revised: 10/31/2008  
 Map Phase: Pre-Review



- Legend**
- Miris Corners
  - Highway
  - Paved Roads
  - = County Gravel Roads
  - = Gravel Roads
  - - Poor Dirt Roads
  - - - Trails
  - Water Features
  - X Gate
  - State Highway
  - Stand Boundaries



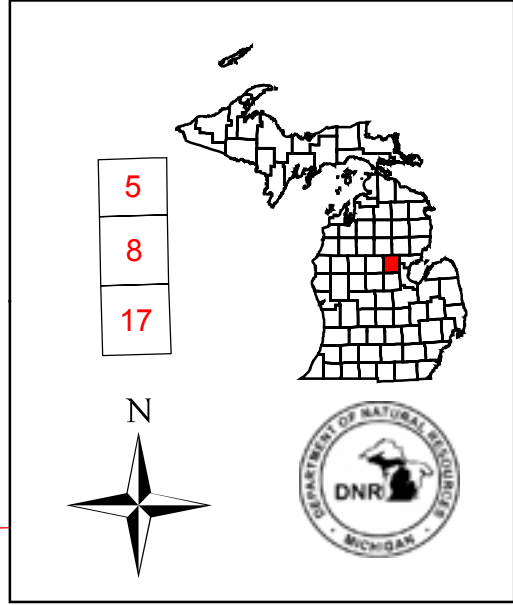
84°17'0"W

84°16'0"W

84°15'0"W

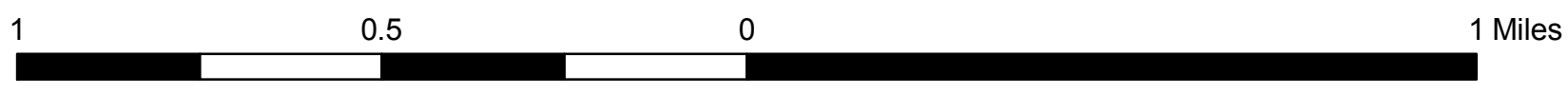
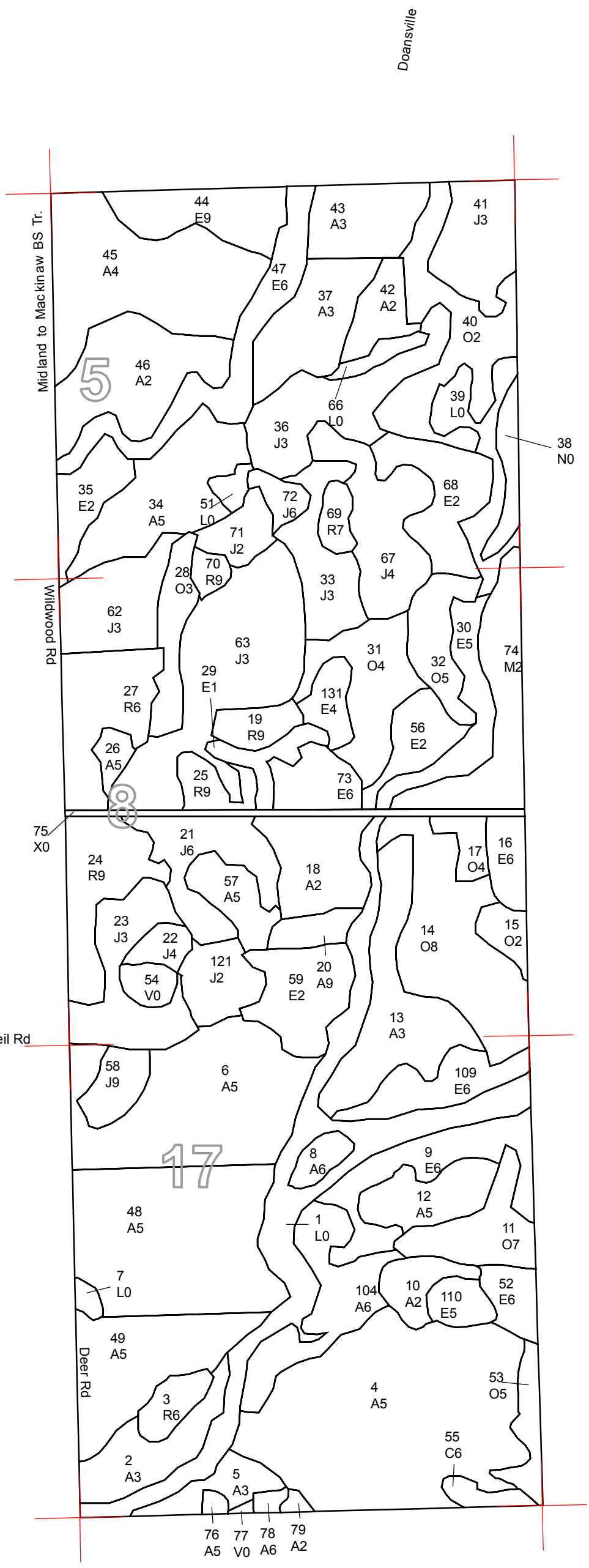
# Dedicated & Proposed Special Conservation Area Map

Compartment 66  
 T18N, R2E, Sec. 5, 8, 17  
 County: Gladwin  
 Unit: Gladwin  
 YOE: 2010  
 Acres: 1,772 GIS Calculated  
 Stand Examiner: Steven Nyhoff  
 Map Revised: 10/31/2008  
 Map Phase: Pre-Review



**Legend**

- Miris Corners
- Stand Boundaries



44°0'0"N

44°0'0"N

43°59'0"N

43°59'0"N

43°58'0"N

43°58'0"N

43°57'0"N

43°57'0"N

84°17'0"W

84°16'0"W

84°15'0"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	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.