



**FOREST MANAGEMENT UNIT  
COMPARTMENT REVIEW PRESENTATION**

**COMPARTMENT # 109 ENTRY YEAR: 2010**

**Compartment Acreage: 2322 County: Midland**

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**Revision Dates:** Draft 9-13-08. Draft 10-30-08.

**Stand Examiner:** Mark Reichel

**Legal Description:** T14N R2W Sections 4, 5, 6, and T15N R2W Sections 31, 32, 33

**General Comments, Treatment Summary and Management Goals:** Aspen cover decreased from 68% of the compartment to 56%, including 165 acres reclassified as swamp aspen. The aspen loss was due to reclassification to swamp hardwoods and upland hardwoods where old aspen canopy died off. Swamp hardwoods increased from 27% of the compartment to 34%, including 35 acres of failed aspen regeneration (none from last year of entry). Continue to manage the current forest types for timber and wildlife habitat. A regulated compartment would have about 250 acres of aspen per 10 year age class. There is currently 253 acres in the 40 to 50 year aspen age class (all either 40 or 42 years old), but only 119 acres of this will be harvested because the other stands in the age class are poor quality and have small diameters, or they are very wet and are regeneration concerns. These stands will be harvested during dry or frozen conditions to maximize regeneration. The un-prescribed stands (6, 29, and 48) will either be harvested next year of entry or left to succeed to upland hardwood stands to be managed on a selection basis. The 1998 inventory noted a concern about regeneration failure. Care was taken with last year of entry's harvests to mark out wet areas, so only 11 acres didn't regenerate well.

There is only 13 acres of oak in compartment but oak is a component of many upland and lowland stands. This years harvests will retain all oak, and oak should be encouraged in the future. One red oak/northern hardwood stand will be selection harvested. Two stands totaling 31 acres are 20 to 30 year old failed aspen harvests that have less than 10 BA of pole sized trees (understocked). Both are good red pine sites and will be "habitat cut" to remove shading, then planted with red pine. An additional 20 similar acres will be interplanted with red pine for a total of 55 acres of planting. There is currently no red pine stands, and only one pine stand (white pine) of any kind in the compartment.

**Soil and Topography:** Elevation ranges from 710 feet in the Northwest corner of the compartment to 680 feet in the Northeast corner. This compartment is a relatively an upland (43% wetland, forested and non-forested) forming the headwaters for both Carroll Creek and Carl Drains. Carroll Creek originates in the Northern part of the compartment, and Carl Drain in the Southeast. These drains run parallel and eastward, eventually draining into the Tittabawassee River in Midland.

The compartment consists of the following soils: Pipestone sand, 55%, somewhat poorly drained, supporting mostly aspen. Kingsville poorly drained loamy fine sand 20% and Kinross mucky sand 20%, supporting mostly swamp hardwoods and some lowland brush (on Kinross). Moderately well drained Covert sand 5%, supporting low quality aspen.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** This large compartment Consists of a large mostly unbroken block east of Coleman road and three smaller blocks west

of Coleman road, all separated by private holdings. There are a large number of residences along Coleman, Huckleberry and Short roads west of Coleman Road, and along Olson and Lewis roads east of Coleman Road south of the compartment. There are two private inholdings in the block east of Coleman road, in the Northeast quarter of section 5 and the northeast quarter of section 32. It is mostly state land to the north and east, and mostly private to the south and west. Highway 20 and Oil City is one mile to the south, with a lot of residences and commercial development. The western border of the compartment is on the Isabella county line.

**Unique, Natural Features:** None per MNFI.

**Archeological, Historical, and Cultural Features:** Stand 24 is an old farmstead that is filling in with aspen. No cutting is prescribed in the area but the State Archeologist's office was notified.

**Special Management Designations or Considerations:** None

**Watershed and Fisheries Considerations:**

**Wildlife Habitat Considerations:** This compartment appears to be very good grouse and woodcock habitat.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of lacustrine (lake) sand and gravel. The glacial drift thickness varies between 200 and 400 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. The Mt. Pleasant Field is located to the south of the Compartment. The Field produced over 29 MBO from the Dundee Formation since its discovery in 1928. There are a couple existing leases and all the rest of the Compartment has been nominated for the October oil & gas lease auction.

**Vehicle Access:** Coleman Road runs North-South and bisects the compartment. There is a large number of residences along Coleman Road and along Huckleberry Road and Short Road west of Coleman Rd, and along Olson and Lewis Roads to the east. One two-track accesses the northwestern-most parcel in section 31, from Huckleberry Road. The road runs along the private line. There are good roads and trails in section 6 with one access point at the end of Short Road, although a berm currently blocks all access. Several berms blocking access to good roads in section 32 have been breached. Access into the main part of the compartment in sections 4 and 33 is limited. The area north of Carrol Creek must be accessed from Compartment 107 to the North. The two-track through stand 32 becomes impassible to 2 wheel drive vehicles just before it comes to a tee in stand 45. Continuing North through stand 45 the road is seasonally flooded. The main access point continuing North from Lewis Road has some deep holes that are seasonally flooded. The road through stand 34 coming from the south and east off Olson Road is good. The road through stands 48 and 49 is good until it crosses stand 43.

**Survey Needs:** None currently. No trespasses were observed with the exception of the private property line along the north edge of section 33, which has been falsely posted about 100 yards south of the true line. This stand (54) is prescribed for a harvest.

**Recreational Facilities and Opportunities:** The compartment appears to receive moderate hunting use. The parcels west of Coleman road receive heavy hunting use; quite a few tree stands and blinds have been illegally left in this area. This is the primary recreational use of the compartment. The compartment receives light ORV use, but one or a few individuals are starting to create new trails and have breached several berms recently.

**Fire Protection:**

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

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

MIDLAND COUNTY

COMPARTMENT: 109

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		64	387	310	142	197				18								17	1135
Grass	27				3														30
Lowlnd Brush	47		4																51
Lowlnd Poplr			69	25	8	69													171
Oak			6						9										15
Paper Birch				20															20
Swamp Hrdwds			190	25	24				25	20	10							489	783
Upland Hdwds			27	49	17					7									100
White Pine						17													17
<b>Total</b>	<b>74</b>	<b>64</b>	<b>683</b>	<b>429</b>	<b>194</b>	<b>283</b>			<b>34</b>	<b>45</b>	<b>10</b>							<b>506</b>	<b>2322</b>

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

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

MIDLAND COUNTY

COMPARTMENT: 109

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	1106						12																	17			1135
G Grass					12										18												30
L Lowlnd Brush									51																		51
P Lowlnd Poplr									171																		171
O Oak														15													15
B Paper Birch															20												20
E Swamp Hrdwds																			783								783
M Upland Hdwds															11									89			100
W White Pine																									17	17	
<b>Total</b>	<b>1106</b>				<b>12</b>		<b>12</b>		<b>51</b>	<b>171</b>				<b>15</b>	<b>49</b>				<b>783</b>					<b>106</b>		<b>17</b>	<b>2322</b>

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

MIDLAND COUNTY

COMPARTMENT: **109**

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

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	10233 Cds	Hardwood	1357 Cds
Hardwood	2765 Mbf	Hardwood	155 Mbf
Softwood	198 Cds	Softwood	25 Mbf
Softwood	381 Mbf	Sum CutVol	1717 Cds
Sum TotVol	16723 Cds		
<b>Total Cmpt Acres</b>		Acres Proposed For Cut.....	143
2322			

## GLADWIN FOREST MGT UNIT

Proposed Treatments  
With NO Limiting Factors

Compartment: 109 Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
13	O9	9	75	65	oak	two aged	selection	2		
comnts Fmd : Operable upland stand used as buffer for stand 10 harvest last YOE. Mark 25 BA white oak to remove. Use regen protection spec; cut all brush. Create 60 foot regen holes for red oak regen. SI much higher than previously indicated. Red maple and white ash also present. Access from School Rd. May want to approve with county as trucks would come out of stand right on curve in School rd. WLD will make small parking lot out of landing. Access from North not possible because would have to go through very wet stand 9.										
17	A6	18	83	60	aspen (upland)	mature	final harvest	1		
comnts Fmd : Final harvest dry frozen, non-negotiable. Harvest early with Compartment 107 stand 148 (2009 POW). Leave all red oak, elm and white oak of all sizes. Hummocky in places so can't do selection. Aspen getting decadent: 5% mortality and will be more when harvested so cruise loose. Leave 50 foot buffer along drain. Don't cut East end where stand narrows: too wet and buffer for private. Stand acts as a buffer along Carroll Creek. Low, wet area. Sparse overstory. Patches of lowland brush.										
31	A6	63	40	58	aspen (upland)	immature	final harvest	2		
comnts Fmd : Leave all pine and oak. Harvest dry/frozen due to poor vigor (some mortality). All upland. '98 comments: Just reaching pole size. Residual aspen, maple and white pine scattered throughout. Also, some white pine regeneration. Private land to the south was cut about 10 years ago.										
35	A5	32	40	58	aspen (upland)	immature	final harvest	2		
comnts Fmd : Final harvest dry/frozen, per WLD. Moderate density and vigor aspen with oak. Small diameters; stand will hold with slight mortality to rotation. Leave oak when harvested. Little better soil where stand grades toward stand 27 at west end. Would be fairly good red pine/oak site: consider converting when harvested. Average D= 7 for aspen. 2 plots w/ higher D because of large residual oaks or maple.										
38	B1	20	25	60	red pine	sparse		0	other - specify in remarks	
comnts Fmd : Doze stand to remove shading, leaving oak and birch, and PLANT RED PINE, unless Wildlife division wants to keep as clearing. SI adjusted down based on observation. Site did not regen well. Western 1/4 is M3/A3. Eastern 15 ac is understocked with oak, birch, red map, aspen. Habitat cut in 1983. Was an A4 stand with BA=50 sq. ft. Sparse regeneration. Large patches of marsh grass and tag alder.										
54	A6	17		60	northern hardwood	mature	shelterwood-prep	2		
comnts Fmd : Remove aspen. Mostly upland and operable but regen concern so do species removal, using dormant season spec, non-negotiable. Also use regen protection spec. Effectively a shelterwood. Access from section 28 in comp 107. Road may go over private line along NW edge: check line. False private line has been posted about 100 yards south of true line. SI estimated in '98. '98 comments: Aspen converted to lowland hardwoods. Wet site, hummocky ground.										
61	A5	4	42	60	aspen (upland)	mature	final harvest	2		
comnts Fmd : Hold stand until next YOE to help even age class distribution. Stand is vigorous enough that it will hold, and will put on good volume. New property during '98 YOE.										
132	M1	11	28	57	red pine	sparse		0	other - specify in remarks	
comnts Fmd : Doze or contract tree removal, leaving oak and black tupelo. Trench and plant red pine. Part of stand 32 that didn't regenerate well. Upland. Red map 40%, oak 24%, aspen 20%, trace of black tupelo, cherry and 10% birch. Little too dense to warrant interplanting. Lot of natural red pine from stand 33: SI about 57 for pine.										
325	A1	12	8	50	jack pine	sparse		0	direct seeding	
comnts Fmd : Stand lower than 25, it is portion of 25 that didn't regen well. Direct seed Jack pine. Good % is shallow depressions, some vac and moss: good for J. Also bracken. SI estimate based on comparison to st 25.										
401	G0	9		60	red pine	nonstocked		0	planting	
comnts Fmd : Failed aspen harvest. Heavy bracken and few small aspen clumps. Plant red pine if soils are amenable. Otherwise plant jack pine. SI estimated, based on comparison to stand 50 (same original stand). '98 comments: Mostly low quality, sparse aspen. Surrounded by lowland hardwoods. Low priority harvest. Cut to 4" dbh, winter harvest only. Update: clearcut December 2000. TS# 11-00-01.										
404	G0	7			red pine	nonstocked		0	planting	
comnts Fmd : Trench and plant R if soil is right. Otherwise plant jack pine. Few red pine seedlings/saps doing well. Scattered cherry, oak, r maple, birch. Ground cov short bracken, sedge, V, reindeer moss.										
405	G0	2			red pine	nonstocked		0	planting	
comnts Fmd : Plant R if right soil, otherwise J. Cross ditch at far East end where there is culvert for road along property line. Scattered red maple, cherry, birch, oak, aspen and serviceberry.										
Total Acres.....		204								

**Proposed Treatments  
With Limiting Factors**

**Compartment:**

**Entry Year:**

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<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>
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TREATMENT LIMITING FACTORS:

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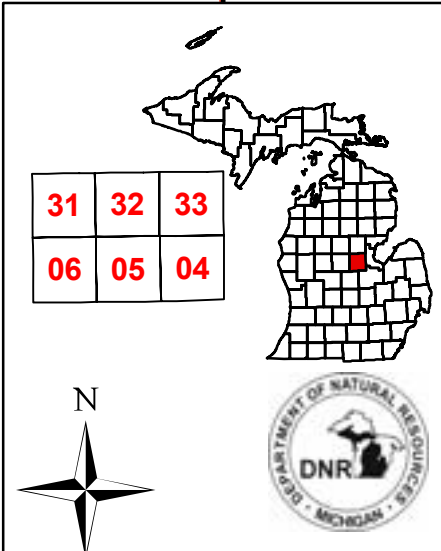
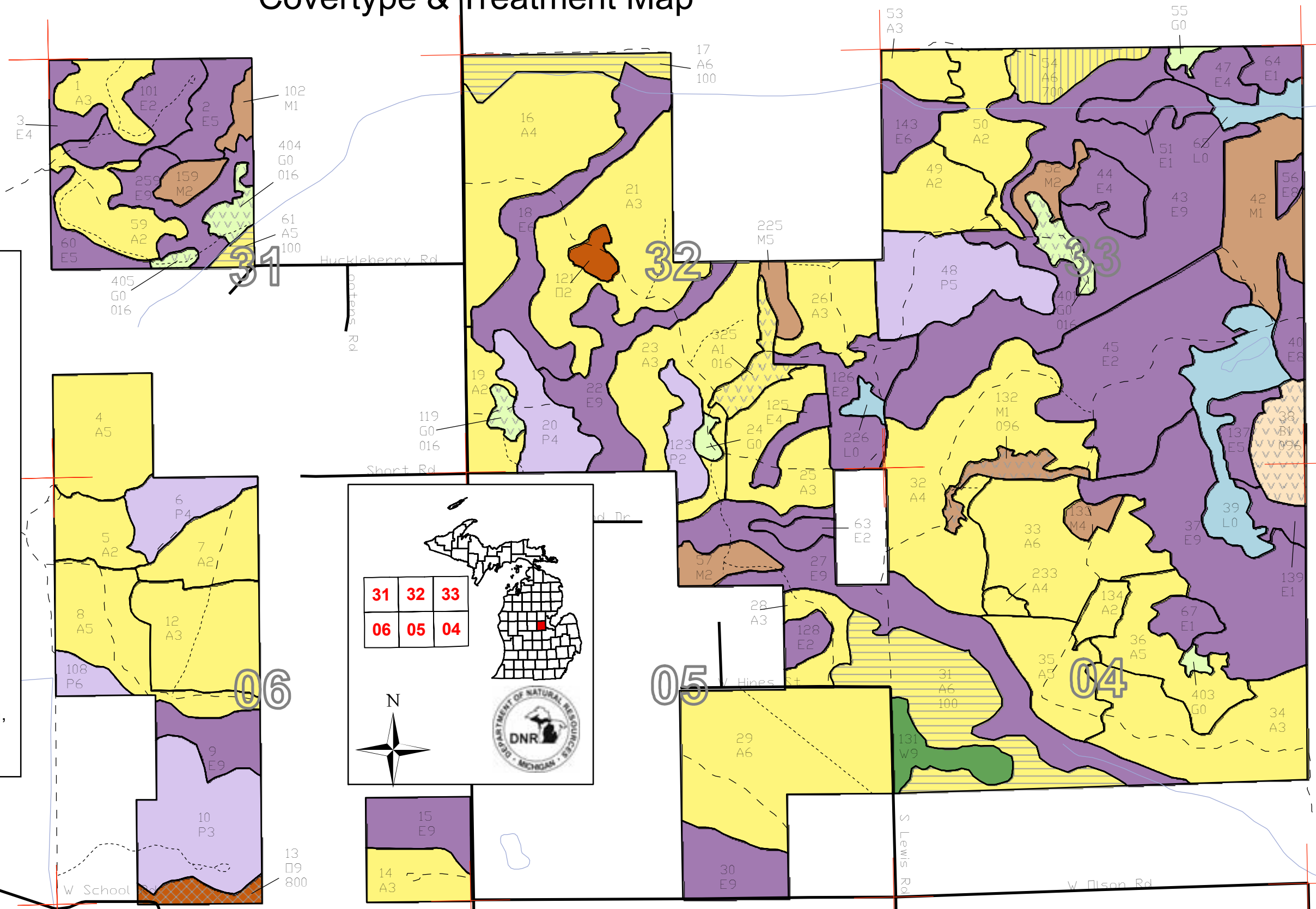
**Total Acres..... #Error**

# Covertypes & Treatment Map

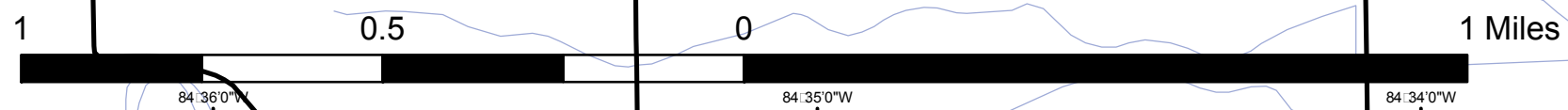
Compartment 109  
 T14N, R2W, Sec. 4 - 6  
 T15N, R2W, Sec. 31 - 33  
 County: Midland  
 Unit: Gladwin  
 YOE: 2010  
 Acres: 2,322 GIS Calculated  
 Stand Examiner: Mark Reichel  
 Map Revised: 10/29/2008  
 Map Phase: Pre-Review

## Legend

- Miris Corners
- Paved Roads
- Poor Dirt Roads
- Trails
- Water Features
- Stand Boundaries
- Treatments**
- 016 - Planting
- 096 - Other
- 100 - Final harvest
- 700 - Shelterwood-prep
- 800 - Selection
- Cover Types**
- A - Aspen
- B - Paper Birch
- E - Swamp Hardwoods
- G - Grass
- L - Lowland Brush
- M - Northern Hardwoods
- O - Oak
- P - Balsam Poplar, Swamp Aspen, Swamp White Birch
- W - White Pine



31	32	33
06	05	04

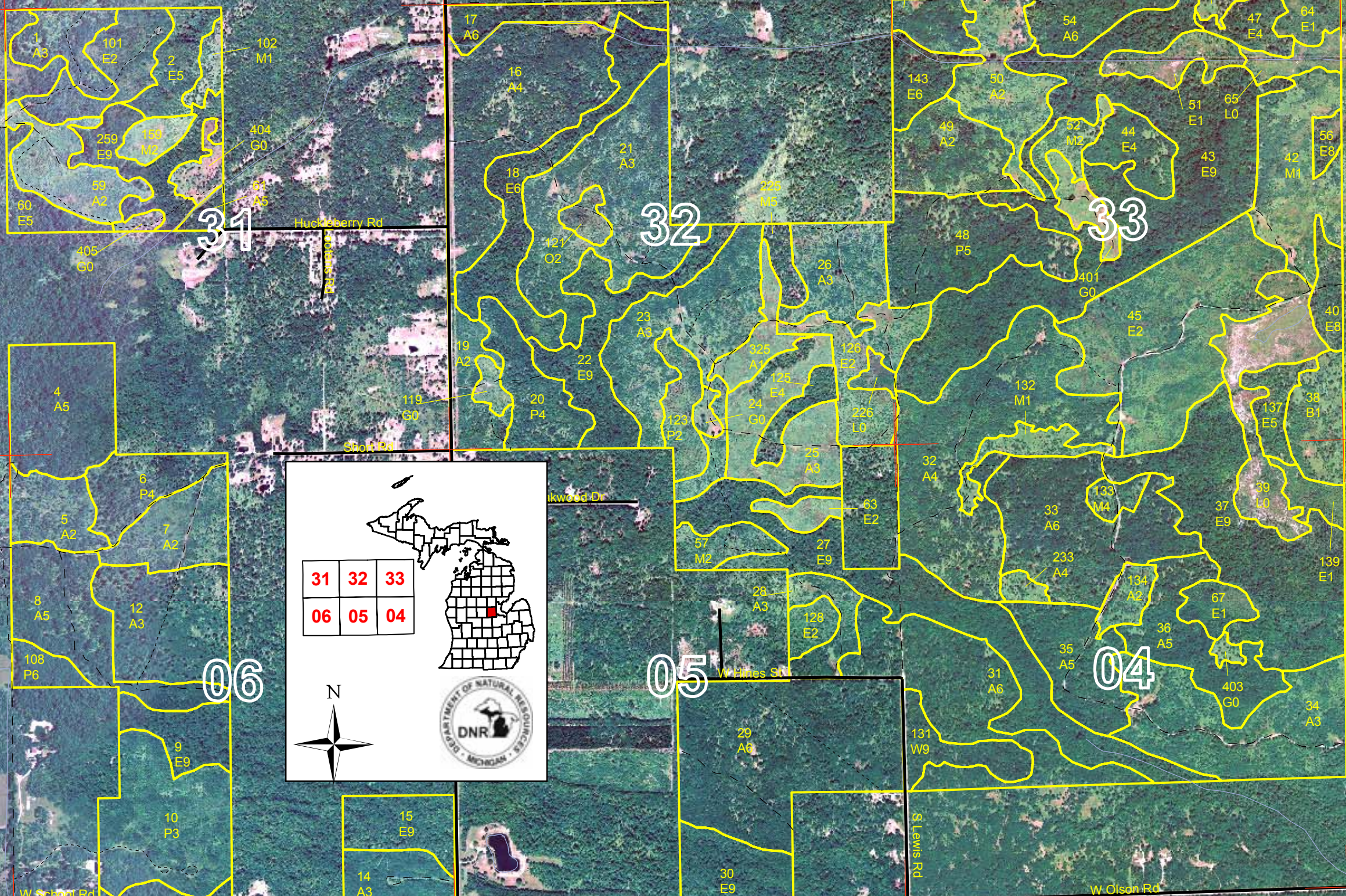


# Stand Boundary Map

Compartment 109  
 T14N, R2W, Sec. 4 - 6  
 T15N, R2W, Sec. 31 - 33  
 County: Midland  
 Unit: Gladwin  
 YOE: 2010  
 Acres: 2,322 GIS Calculated  
 Stand Examiner: Mark Reichel  
 Map Revised: 10/29/2008  
 Map Phase: Pre-Review

## Legend

- Miris Corners
- Paved Roads
- - - Poor Dirt Roads
- - - - Trails
- Water Features
- Stand Boundaries



31	32	33
06	05	04



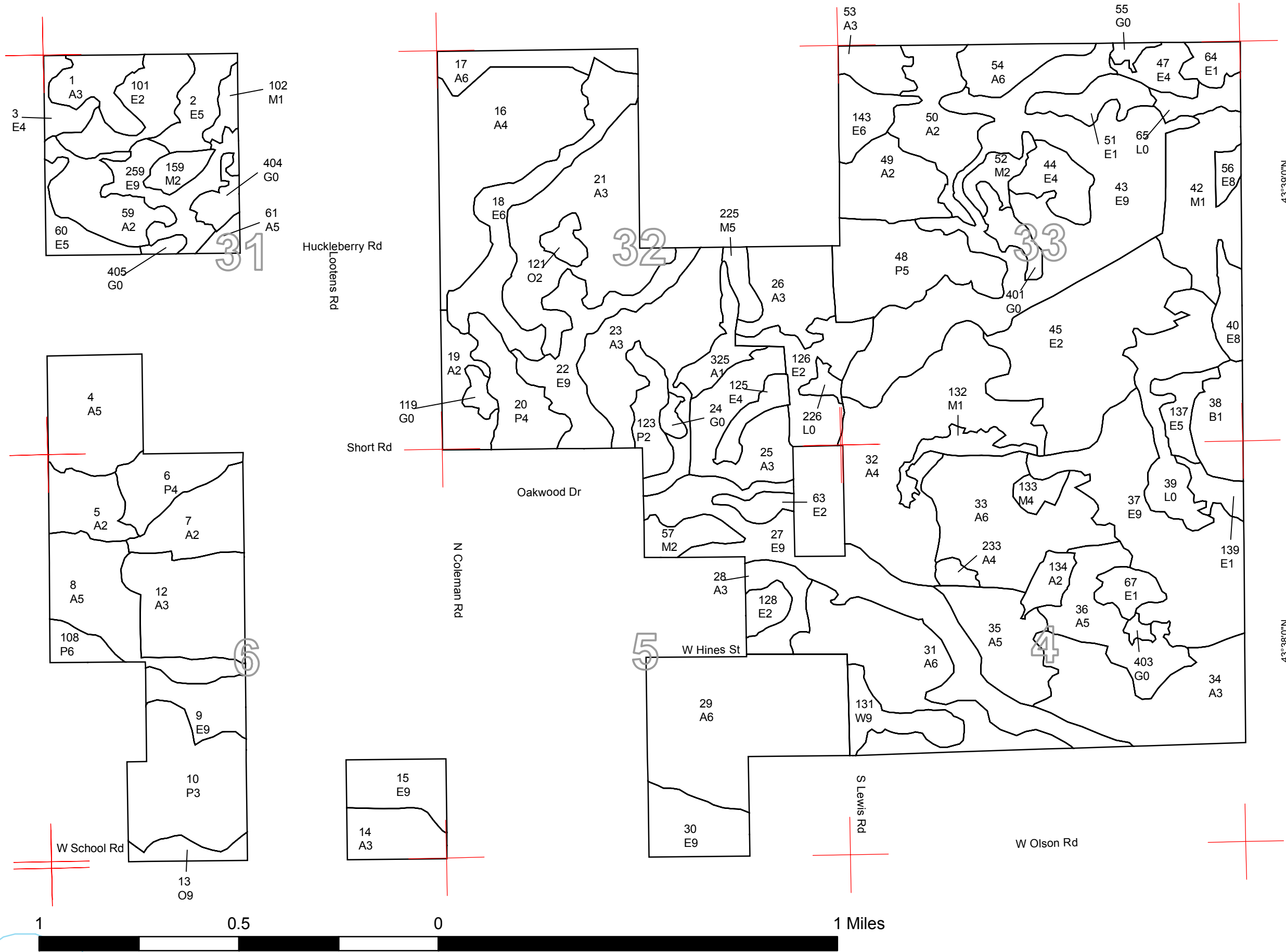
# Dedicated & Proposed Special Conservation Area Map

Compartment 109  
 T14N, R2W, Sec. 4 - 6  
 T15N, R2W, Sec. 31 - 33  
 County: Midland  
 Unit: Gladwin  
 YOE: 2010  
 Acres: 2,322 GIS Calculated  
 Stand Examiner: Mark Reichel  
 Map Revised: 10/29/2008  
 Map Phase: Pre-Review

31	32	33
6	5	4



- Legend**
- Miris Corners
  - Stand Boundaries
  - Dedicated Special Conservation Areas
  - Cold Water Streams



43°39'0"N

43°38'0"N

43°38'0"N

84°37'0"W

84°36'0"W

84°35'0"W

84°34'0"W

84°33'0"W

84°37'0"W

84°36'0"W

84°35'0"W

84°34'0"W

84°33'0"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.
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.