



**FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 116 ENTRY YEAR: 2010

Compartment Acreage: 3125 County: Midland

Draft

Revision Date: August 2008, 10/20/08

Stand Examiner: Steven Nyhoff

Legal Description: T13N, R2W, Sec.1, 2, 4, 9-14, and 25
T13N, R1W, Sec. 7, 8, and 18

RMU (if applicable):

Management Goals:

The aspen in the compartment has been heavily managed in the last 40 years. Much of the aspen is less than 30 years old. In addition, the most recent aspen cuts have not regenerated well. This poor regeneration appears to be associated, at least partly, to a high deer population in the area. The other factor is poor site indexes and low vigor. The swamp hardwoods in the compartment have not been managed extensively in the last 30 year; this is mainly due to high water table under the compartment making many of these stands too wet to manage.

Most stands are a mixture of upland and lowland. Therefore, the stands were called based on the observed percentage of one or the other. Some of these stands are only marginally upland or lowland. This makes management more challenging and when stands are put up for harvest, the cut acres may vary from the inventory acres significantly.

One of the main concerns is the deer population in the compartment. Any final harvest done in the area may not regenerate well and will need to be interplanted with conifers to bring up to full stocking. Despite this concern there are several final harvests scheduled for this year of entry. These stands, because of the deer population and soil condition, will need to be harvested in dry or frozen conditions during the dormancy period to maximize regeneration. They will have to be checked carefully to assure adequate regeneration. Most of the stands are being managed for the current cover types and a couple of stands are in the process of converting to mixed hardwoods. In these stands the aspen has declined to the point that it is very questionable that they will regenerate. Most of these converting stands are only just upland or just lowland and the sites are better suited to a mixed hardwood stand.

Soil and Topography:

The soils in the compartment are mainly a mixture of Covert, Pipestone, and Kingsville soil associations. There are smaller areas of Kinross association and Adrian muck in the wettest areas.

The terrain is a matrix of upland and lowland. There are large areas that are mainly upland as well as large extensive marshes and lowland brush types. This mixture of upland and lowland is also present in the majority of stands.

In addition, many stands have extensive micro relief in the form of hummocky ground.

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

Much of the stand land is in two contiguous areas. The private land in the area is used for both private residences and recreational properties.

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

There is an eagle nest in the compartment in section 3 of T13N R1W. Other records are near the compartment. There are records of Wood Turtles to the north and south, Red-shouldered Hawks to the north, Rainbow and Elktoe mussel to the south west, Beak Grass to the north and east, and Broad-leafed Puccoon to the north and south.

Archeological, Historical, and Cultural Features

This compartment is part of the Porter Oil Fields that were started in the early 1900s. Therefore, there are numerous cultural features in the compartment associated with this development. Currently it is being reclaimed and old well sites are being restored.

It appears that there was an old dump associated with this near McGrudder Road. This dump has been abandoned for many years. Some of the trees growing in the dump appear to be 40+ years old.

Special Management Designations or Considerations:

None recorded.

Watershed and Fisheries Considerations:

This compartment has an extensive wetlands complex that drains into the Chippewa River. However, there are very few creeks or rivers flowing through the compartment. Therefore, the fisheries considerations are minimal but the watershed considerations are significant.

Wildlife Habitat Considerations:

During the inventory process, it was noted that there was a high deer population in the compartment. Many of the aspen stands that were harvested in the last 20 years have had mixed results in regeneration. This is especially evident in the last YOE. The regeneration is very patchy with many dead stems around live clone. The dead stems show sign of deer browse. In addition, it is noted that there was even areas of summer browse on ash and other tree

Mineral Resource and Development Concerns and/or Restrictions:

The majority of this compartment is part of the Porter Oil Fields. This is among the oldest oil field developments in Michigan. Currently Chevron is closing down much of the oil field and they are in the process of reclaiming many of the old well sites.

Surface sediments consist of lacustrine (lake) clay, silt, sand and gravel and dune sand. 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 Porter-Jasper Field is located in the Compartment. The Field produced over 50 MBO from the Dundee Formation since its discovery in 1933. Most of the Compartment is currently leased.

Vehicle Access:

The main access for the majority of the compartment is through a gate on McGrudder Road. The trail system behind that gate is in good shape and provides good access to most of the compartment.

The western section of the compartment is accessed from S. Alamamdo Road and S. Lewis Road using some existing two-track. The access to this area is fair but a large area in sections 9 and 10 has limited access.

Survey Needs:

There have been several private surveys done and parts of the Porter Oil Field have been surveyed by Chevron. Therefore, at the current time, no survey is needed.

Recreational Facilities and Opportunities:

There is no developed recreational facility in the compartment. In addition, much of the area, Porter Oil Field, has been gated and blocked, restricting vehicular access. There are some two-tracks present around the edges of the compartment, so the area is still heavily hunted. The gate into the Porter Oil Field is proposed to be open for deer season. This will improve recreational use of the compartment.

Fire Protection:

This area is a mixture of forested and wetland so fire danger is minimal.

Additional Compartment Information:

In section 4 of T13NR2W is an 800 MHz radio tower. Stand 127 in section 10 is a DEQ clean up site. In section 25, a forty is recommended for disposal. In addition, all of the forty in section 2 is recommended for disposal except the northwest 5 acres. This 5 acres parcel is being retained to provide access to the Little Salt Creek.

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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: 116

Table 3

(acres shown in boxes)

STAND AGE CLASS

COVER TYPE	Not Coded	STAND AGE CLASS														All Aged	Total		
		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
Aspen		55	643	628	65	9		10	9	41									1460
Grass	12																		12
Lowlnd Brush	141																		141
Lowlnd Poplr			7																7
Marsh	426																		426
Non Stocked	5																		5
Oak				18	19		15											7	59
Red Pine								5											5
Swamp Hrdwds			23					100	46	116	15							645	945
Upland Brush	10																		10
Upland Hdwds					52		3												55
Total	594	55	673	646	136	9	18	115	55	157	15							652	3125

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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: 116

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	1354						55									51											1460
G Grass					12																						12
L Lowlnd Brush									141																		141
P Lowlnd Poplr										7																	7
N Marsh											426																426
X Non Stocked													5														5
O Oak														59													59
R Red Pine																5											5
E Swamp Hrdwds																				945							945
U Upland Brush																								10			10
M Upland Hdwds																									55		55
Total	1354				12		55		141	7	426		5	59		56				945				10	55		3125

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

MIDLAND COUNTY

COMPARTMENT: **116**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

TOTAL VOLUME		CUT VOLUME	
Hardwood	14705 Cds	Hardwood	929 Cds
Hardwood	2288 Mbf	Hardwood	138 Mbf
Softwood	20 Cds	Sum CutVol	1205 Cds
Softwood	48 Mbf		
Sum TotVol	19397 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	
3125		73	

GLADWIN FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

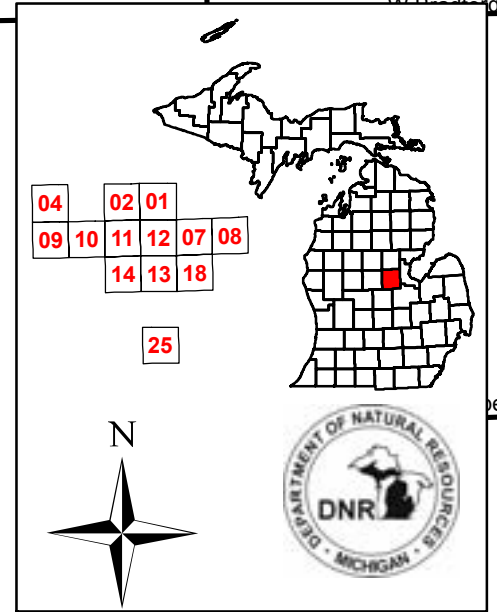
Compartment: 116 Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
14	A1	17	6	60	jack pine	immature		0	planting	
comnts Fmd : The stand was clearcut in 2002 and it has not come back. The aspen regeneration in the stand appears to have been hit with some disease for there are many dead aspen root sucker in the stand. The area will need to be interplanted to red pine to bring it up to full stocking. Many of the ash trees along the edges of the cut have been girdled.										
32	M6	3	57	68	northern hardwood	mature	final harvest	2	natural regeneration	
comnts Fmd : The stand is mainly upland with inclusion of lowland. This area can be clearcut retaining 1 or 2 trees per acre. However, because of the soils, it will need to be harvested in dry or frozen conditions. The main soil type is Pipestone.										
46	A6	9	75	67	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : The stand is a mixture of upland and lowland. This area could be harvest but it is very wet and rutting could be a big problem. The harvest should be a clearcut with reserves making 1 or 2 trees per acre to retain. In addition, when the stand is harvest it needs to be in dry or frozen conditions. The main soil type is Kingsville.										
71	A1	28	8	62	jack pine	immature		0	planting	
comnts Fmd : T.Sale #18-99-1, clearcut January 2000. The stand is sparse and needs to be interplanted with jack pine to bring up to full stocking. The regeneration in the stand is patchy and it is mainly in the form of isolated clones. When the stand was harvested the oak <= 4" DBH was left. There is also a lot of mortality in the aspen regeneration that seems to be associated with deer browsed. The main soil types are Pipestone and Covert.										
88	A1	51	8	60	red pine	sparse		0	planting	
comnts Fmd : The stand is a mixture of good regeneration and areas of open land. There is a lot of dead aspen regeneration in the stand that appears to be linked with deer browse. When the stand was harvested, the oak <= 4" was left. Overall, the stand is sparse and needs to be interplanted with red pine to bring it up to full stocking. The main soil type is Pipestone.										
137	A1	10	6	60	jack pine	immature		0	planting	
comnts Fmd : The stand was clearcut in 2002 and it has not come back. The aspen regeneration in the stand appears to have been hit with some disease for there are many dead aspen root sucker in the stand. The area will need to be interplanted to red pine to bring it up to full stocking. Many of the ash trees along the edges of the cut have been girdled.										
Total Acres.....		118								

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
9	A6	15	83	60	aspen (upland)	mature	final harvest	1	natural regeneration	
TREATMENT LIMITING FACTORS: Blocked by other physical obstacle Adjacent landowner denies access										
comnts Fmd : The stand is mostly dry. It is isolated by a drainage and private land making access difficult. The stand is converting to red maple. If the aspen in the stand is to be maintained it needs to be harvested. This will probably need to be done with habitat cut because of the access problem and the volume present. The main soil type under the stand is Pipestone.										
13	A9	12	83	60	aspen (upland)	mature	final harvest	1	natural regeneration	
TREATMENT LIMITING FACTORS: Blocked by other physical obstacle										
comnts Fmd : This stand is dry, for the most part. There are some wet swales in the stand and it needs to be cut. So harvest as a 2" clearcut with retention. The harvest should be done during the dormancy period; this is to help increase the chance of regenerating in the stand because the aspen has poor vigor. This stand will need to be habitat cut. It is isolated by L-Types, low wet E-Types, and private land.										
101	E6	34	63	70	swamp hardwoods	mature	final harvest	1	natural regeneration	
TREATMENT LIMITING FACTORS: Neighbor										
comnts Fmd : Harvest this stand as a 4" clearcut with reserves retaining 3% of the area. The stand is a mixture of upland and lowland and it is land locked so harvestability is poor. In addition, getting regeneration is a concern because of high deer populations. The stand has signs of summer browse on ash regeneration in the stand, if harvested it will need to be done during the dormancy period in dry or frozen conditions. The stand is expected to regenerate as a mix of aspen and maple if not interplant with jack pine to bring to full stocking. The main soil type is Pipestone. The stand is isolated by private land so it may need to be habitat cut if it is to be managed.										
Total Acres.....		61								

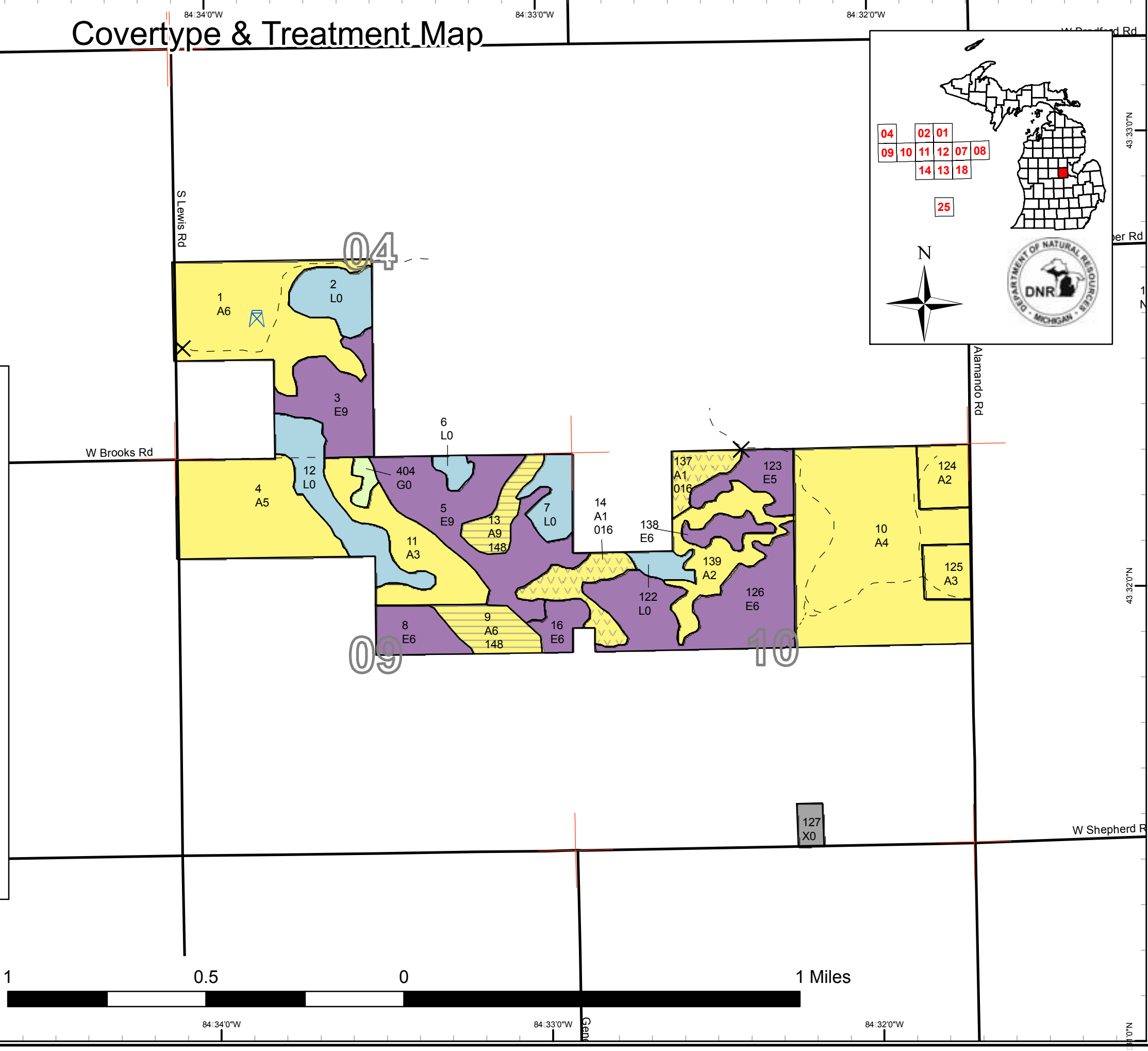
Covertime & Treatment Map

Compartment 116
 T13N, R1W, Sec. 7, 8, 18
 T13N, R2W, Sec. 1, 2, 4, 9-14, 25
 County: Midland
 Unit: Gladwin
 YOE: 2010
 Acres: 3,125 GIS Calculated
 Stand Examiner: Steven Nyhoff
 Map Revised: 10/28/2008
 Map Phase: Pre-Review



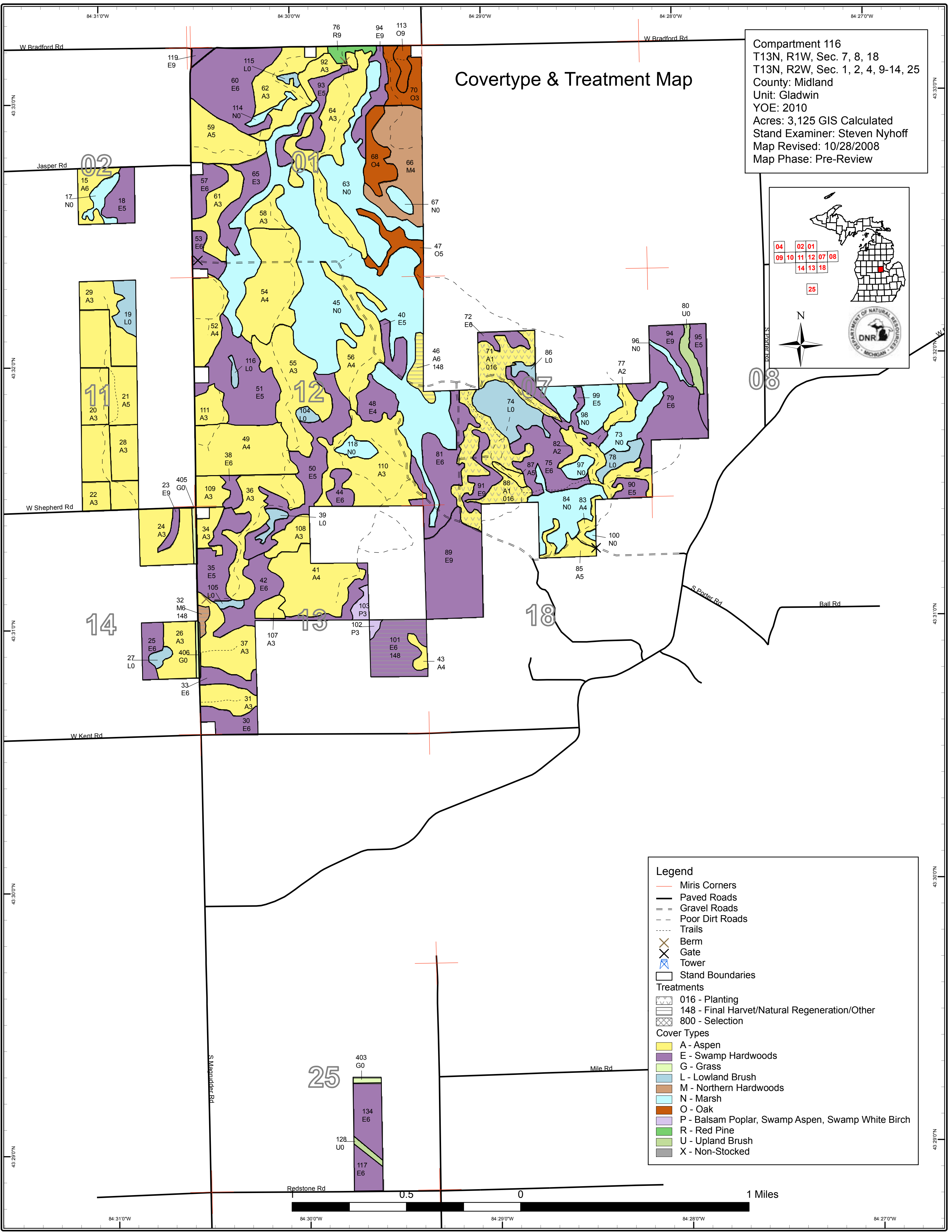
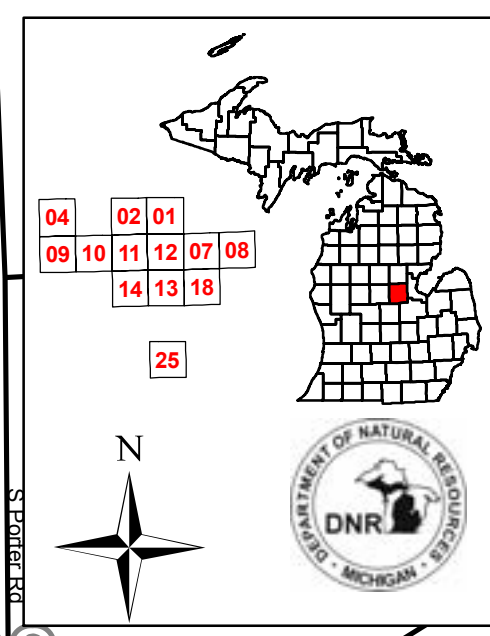
Legend

- Miris Corners
- Paved Roads
- = =** Gravel Roads
- - -** Poor Dirt Roads
- ⋯** Trails
- X** Berm
- X** Gate
- ⊠** Tower
- Stand Boundaries
- Treatments**
- ▨** 016 - Planting
- ▩** 148 - Final Harvet/Natural Regeneration/Other
- ▤** 800 - Selection
- Cover Types**
- A - Aspen
- E - Swamp Hardwoods
- G - Grass
- L - Lowland Brush
- M - Northern Hardwoods
- N - Marsh
- O - Oak
- P - Balsam Poplar, Swamp Aspen, Swamp White Birch
- R - Red Pine
- U - Upland Brush
- X - Non-Stocked



Covertime & Treatment Map

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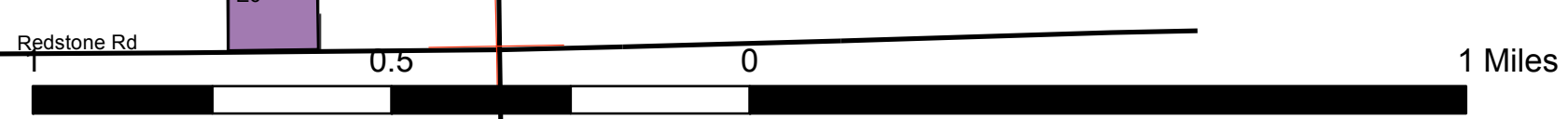
- Miris Corners
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- Trails
- ⊗ Berm
- ⊗ Gate
- ⊗ Tower
- Stand Boundaries

Treatments

- 016 - Planting
- 148 - Final Harvet/Natural Regeneration/Other
- 800 - Selection

Cover Types

- A - Aspen
- E - Swamp Hardwoods
- G - Grass
- L - Lowland Brush
- M - Northern Hardwoods
- N - Marsh
- O - Oak
- P - Balsam Poplar, Swamp Aspen, Swamp White Birch
- R - Red Pine
- U - Upland Brush
- X - Non-Stocked



84 31 0 W 84 30 0 W 84 29 0 W 84 28 0 W 84 27 0 W

43 33 0 N 43 32 0 N 43 31 0 N 43 30 0 N 43 29 0 N 43 28 0 N

W Bradford Rd

Jasper Rd

W Shepherd Rd

W Kent Rd

S Alexander Rd

Mile Rd

S Porter Rd

Ball Rd

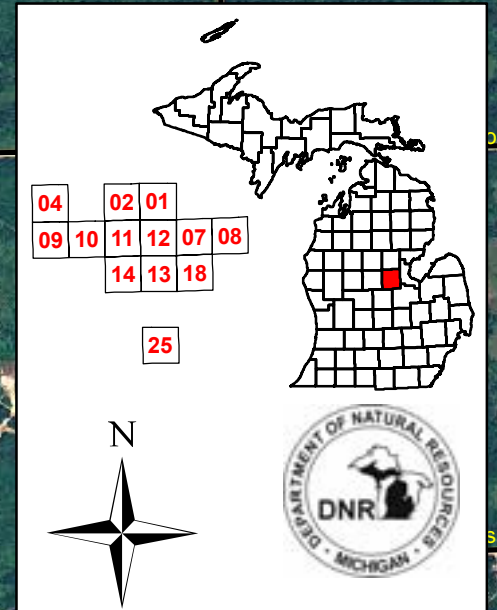
Redstone Rd

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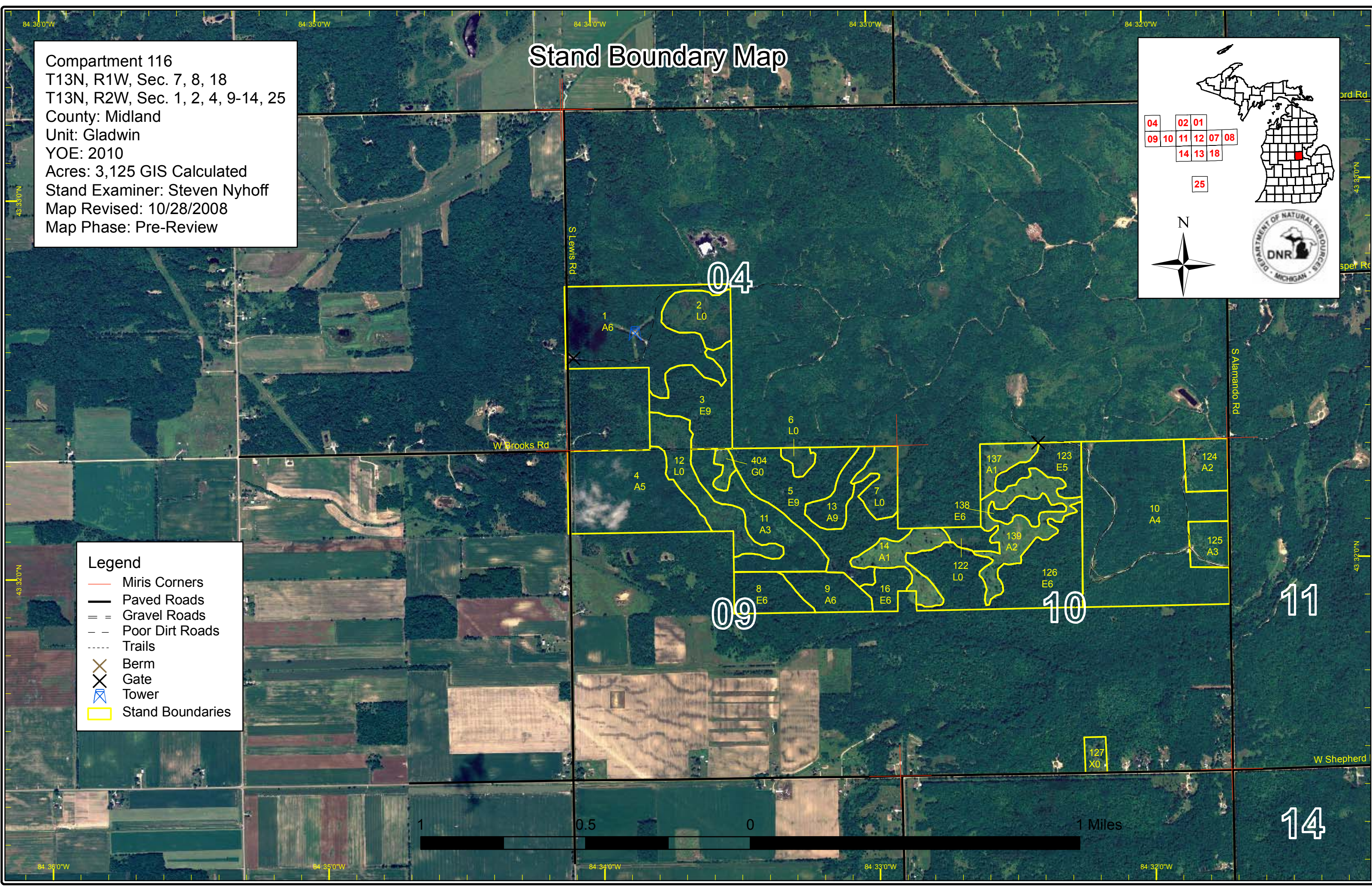
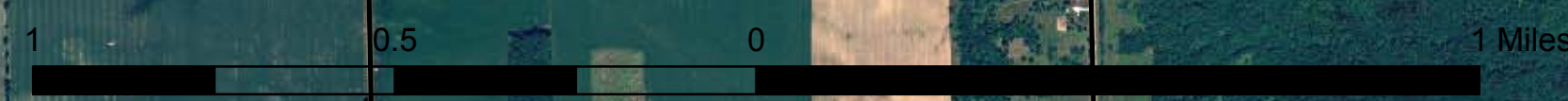
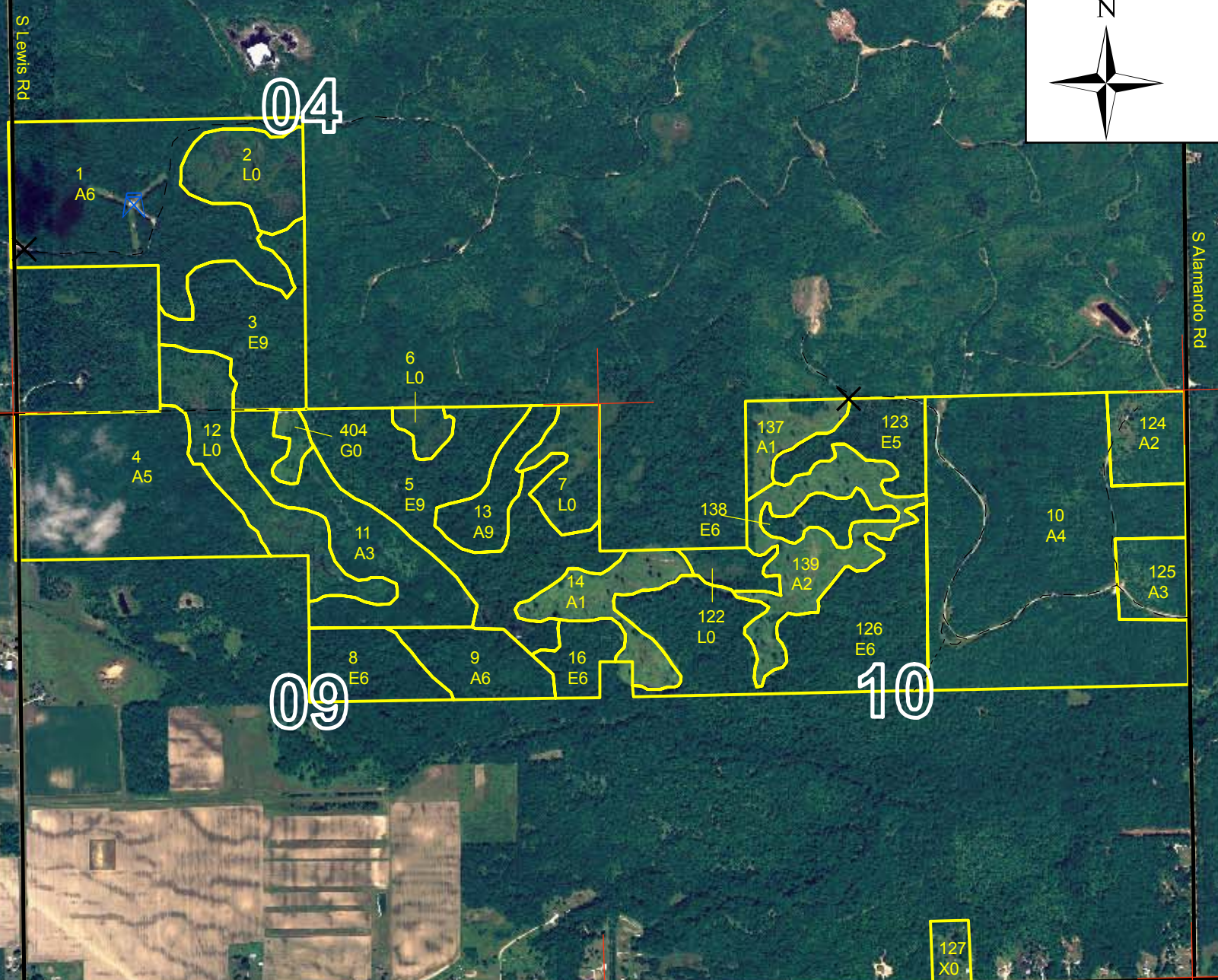
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Stand Boundary Map

Compartment 116
 T13N, R1W, Sec. 7, 8, 18
 T13N, R2W, Sec. 1, 2, 4, 9-14, 25
 County: Midland
 Unit: Gladwin
 YOE: 2010
 Acres: 3,125 GIS Calculated
 Stand Examiner: Steven Nyhoff
 Map Revised: 10/28/2008
 Map Phase: Pre-Review

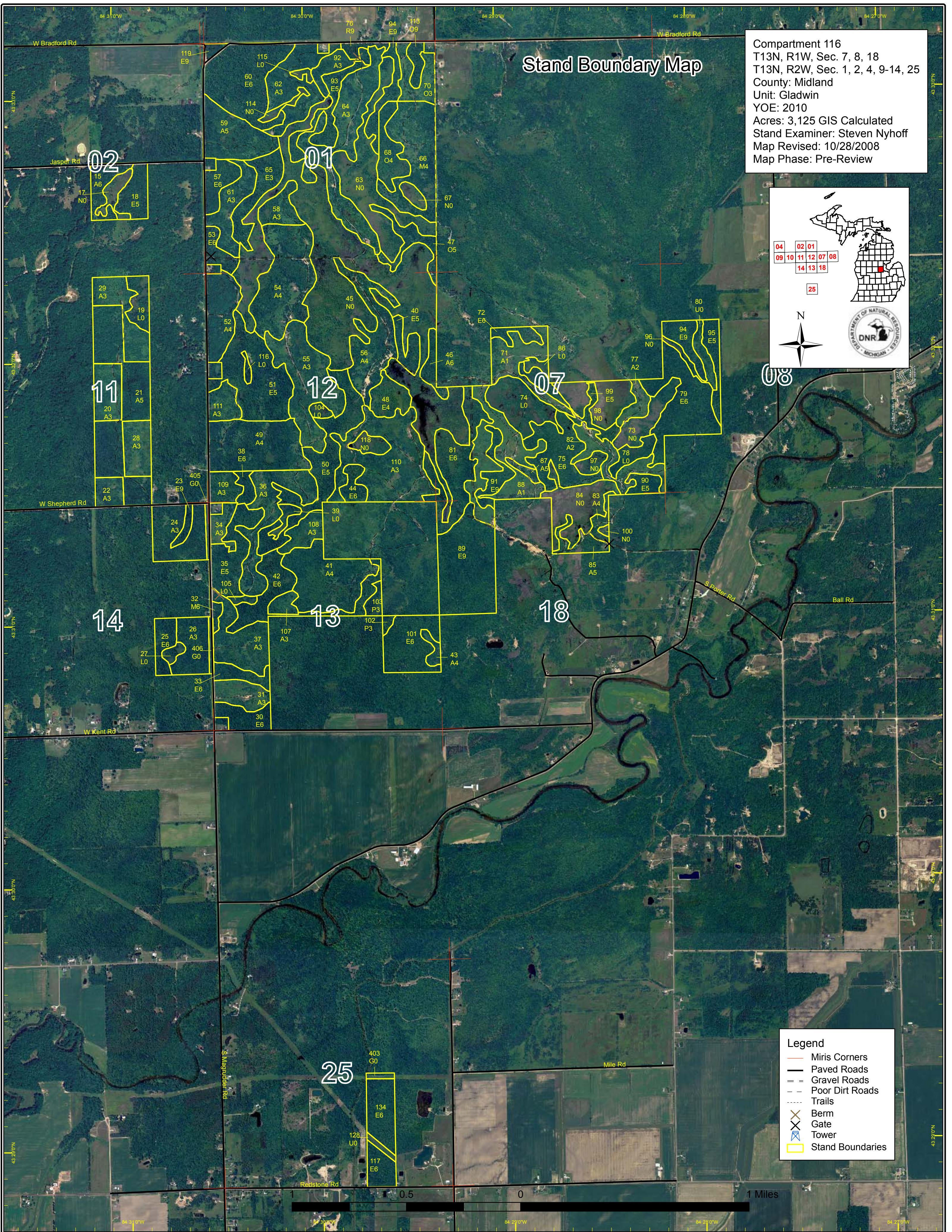
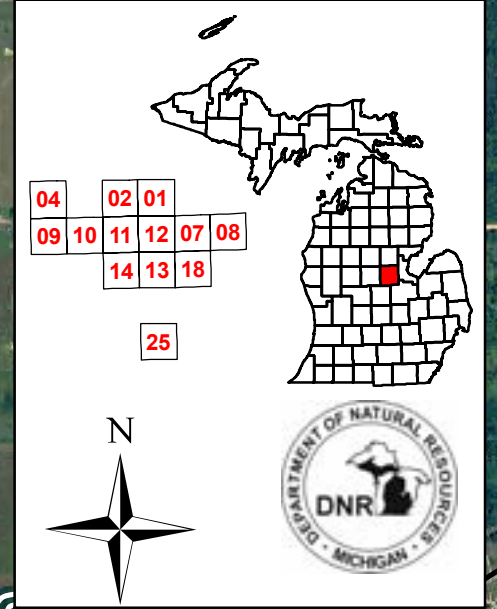


- Legend**
- Miris Corners
 - Paved Roads
 - = Gravel Roads
 - - Poor Dirt Roads
 - ⋯ Trails
 - X Berm
 - X Gate
 - ⊠ Tower
 - Stand Boundaries



Stand Boundary Map

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Legend



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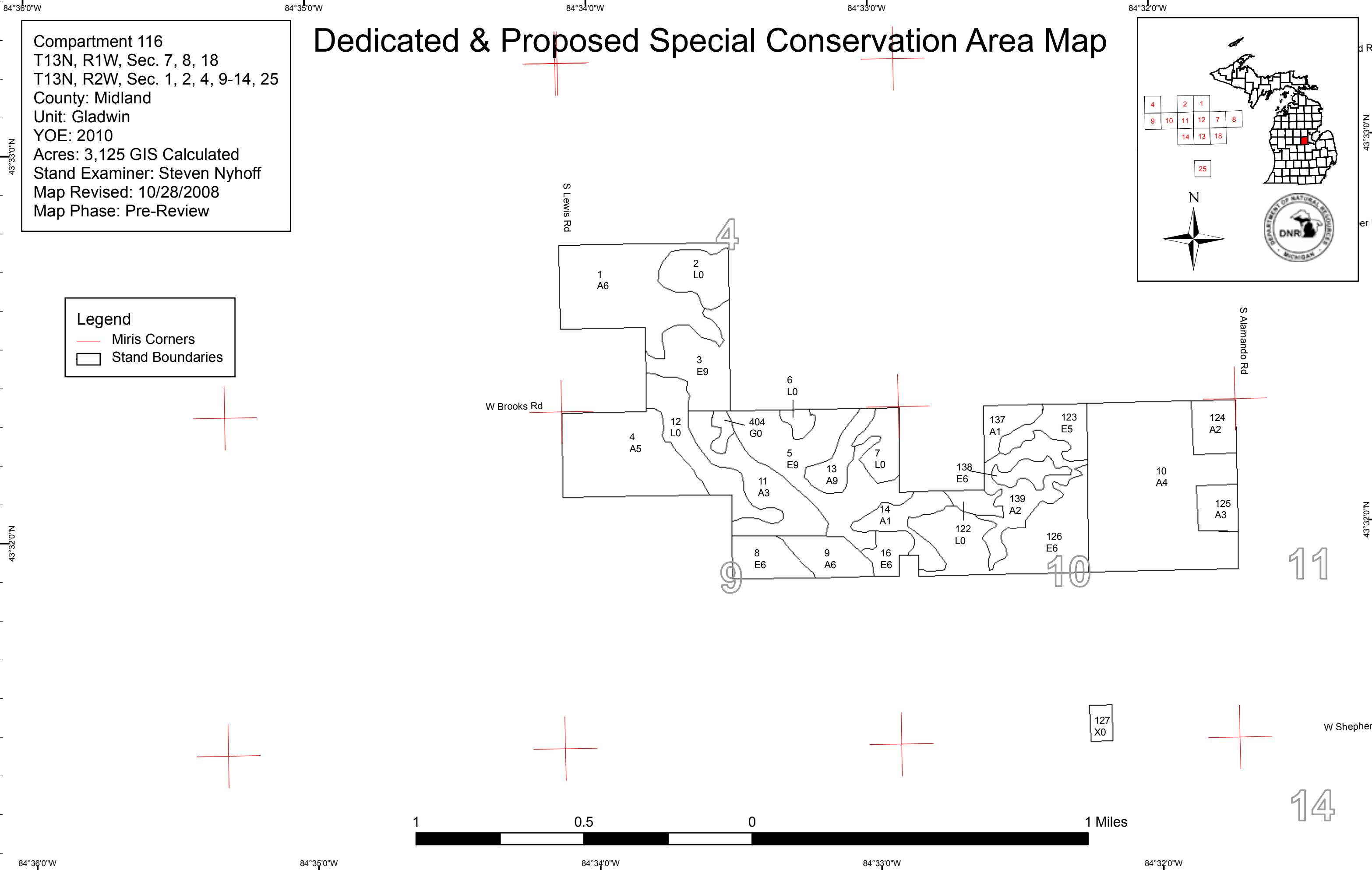
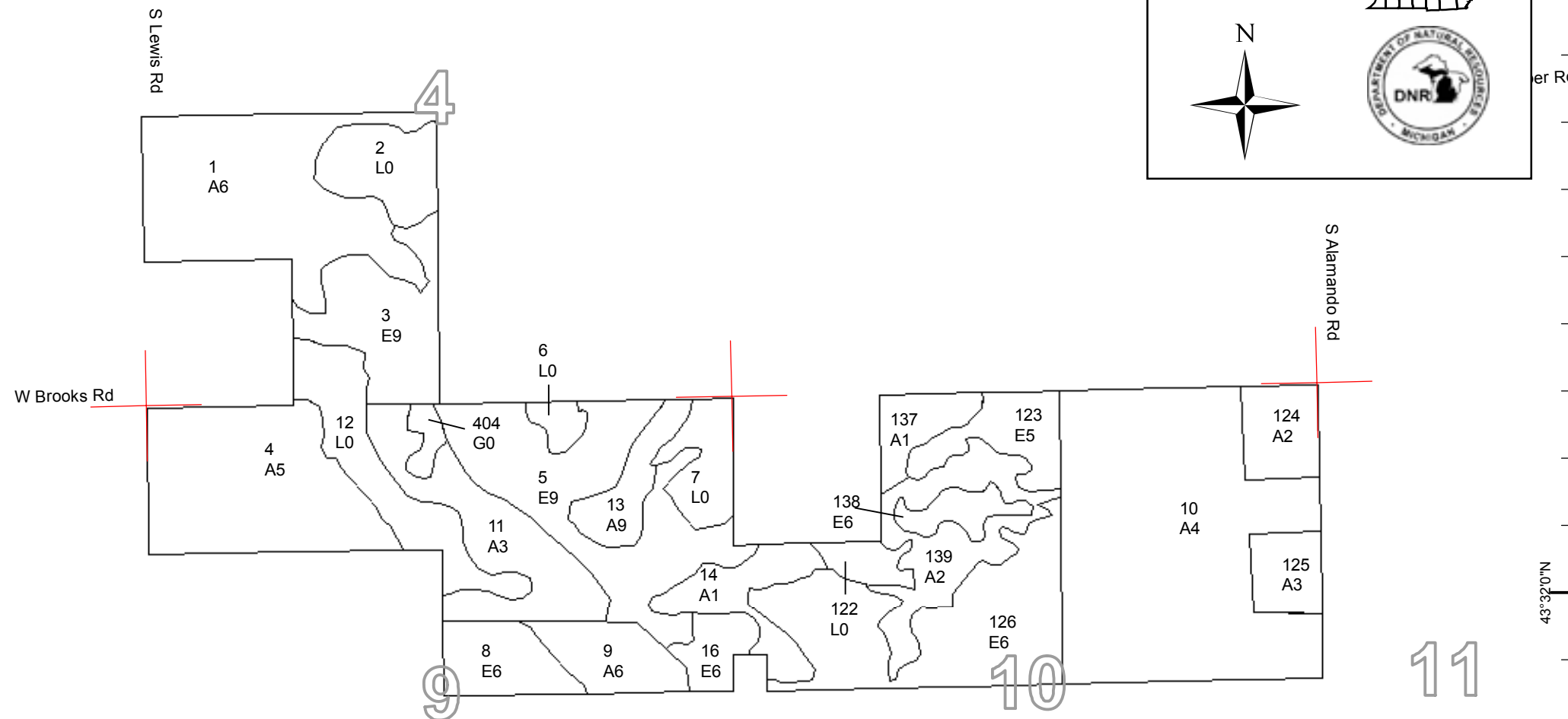
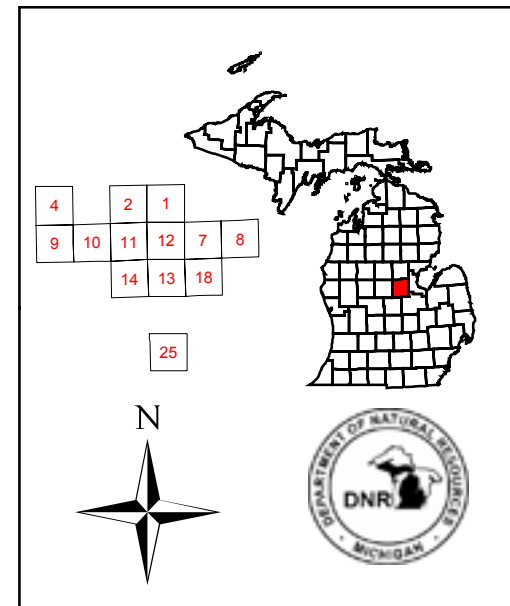


Dedicated & Proposed Special Conservation Area Map

Compartment 116
 T13N, R1W, Sec. 7, 8, 18
 T13N, R2W, Sec. 1, 2, 4, 9-14, 25
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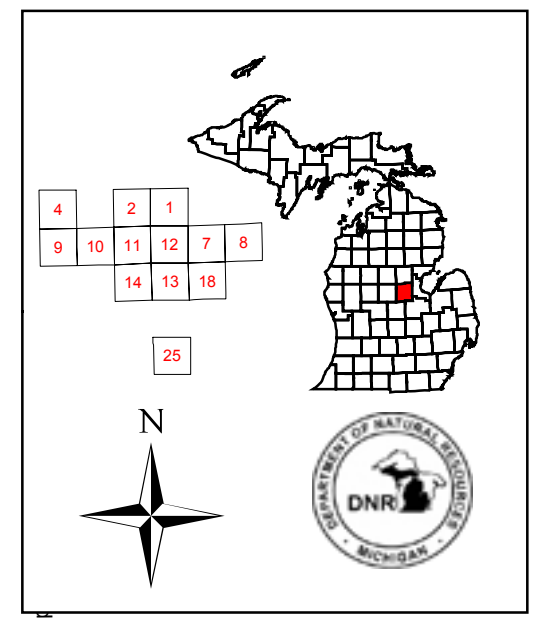
Legend

-  Miris Corners
-  Stand Boundaries



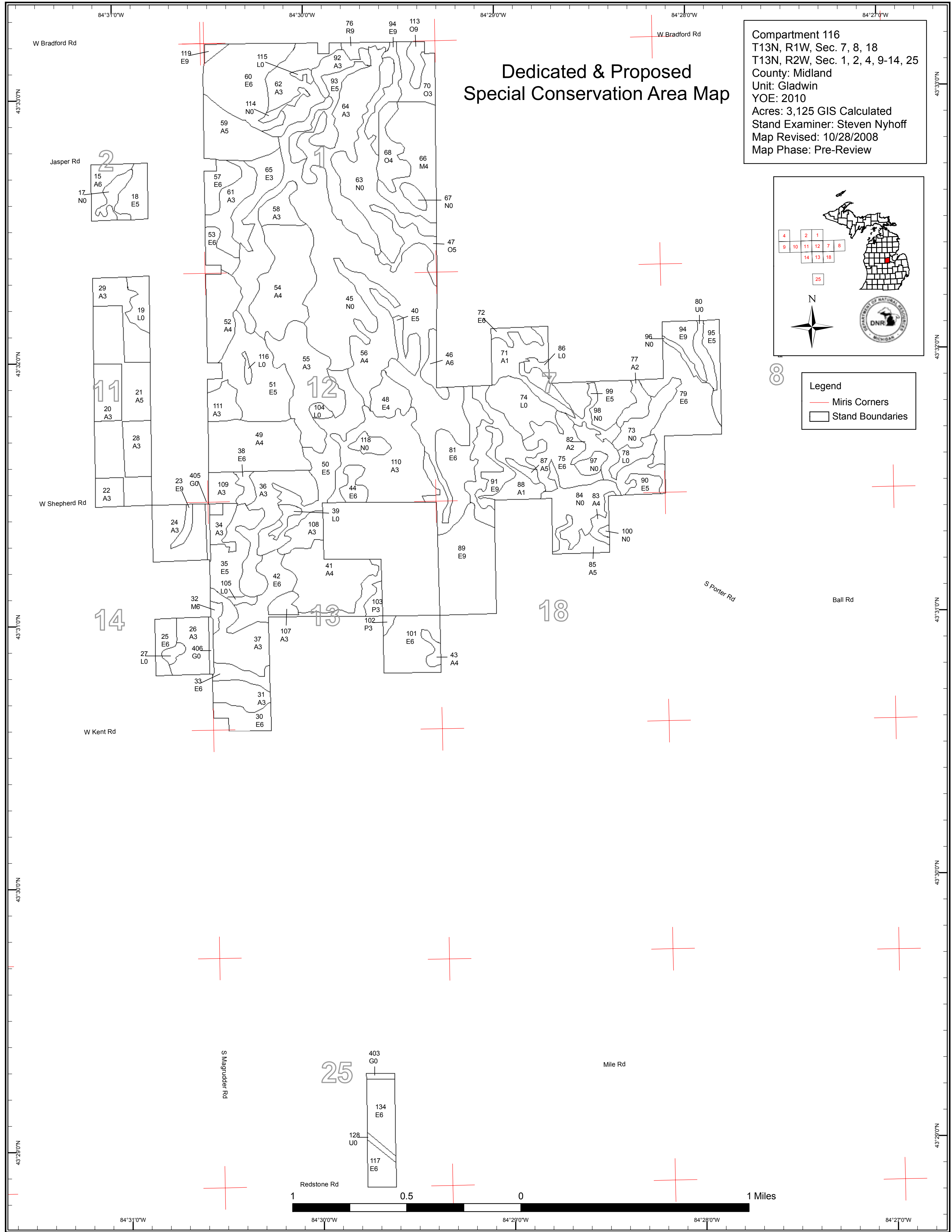
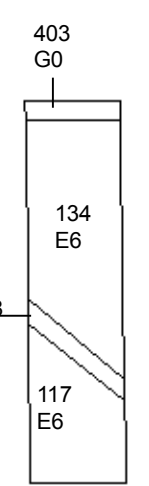
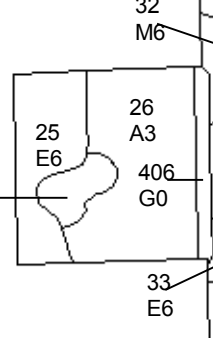
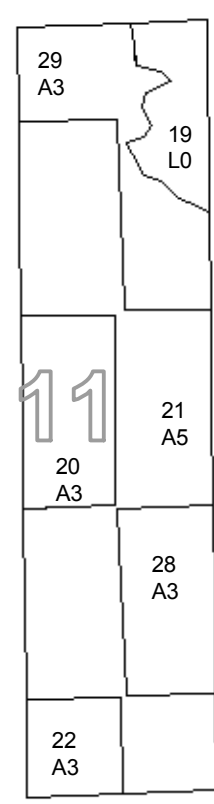
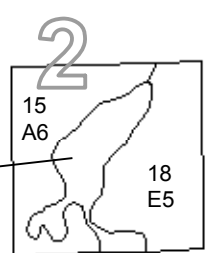
Dedicated & Proposed Special Conservation Area Map

Compartment 116
 T13N, R1W, Sec. 7, 8, 18
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Legend

- + Miris Corners
- 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	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.