



**FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 97 ENTRY YEAR: 2011

Compartment Acreage: 1463 County: Midland

Revision Date: May 2009, Oct. 2009

Stand Examiner: Steven Nyhoff

Legal Description: T16N, R1W, Section 19-22

RMU (if applicable):

Management Goals:

This compartment is a mixture of uplands and lowlands even within stand boundaries. The terrain is often hummocky with extensive micro relief. Overall, the compartment has been heavily managed over the last 20-30 years. The management has been concentrated on the early successional ecosystems. Therefore, much of the harvested stands have been maintained as aspen. The regeneration in the harvested areas has been mixed, but often moderate to poor.

Continue to manage for the current cover types. In the stand, where the regeneration is poor, look to interplant conifers where the soils, terrain, and access allow. Midland County lacks a good conifer component, while many of the poorly regenerated stands have extensive pine stump fields. In addition, many of the swamp hardwood stands in the compartment are too wet to harvest. There may be opportunity to do limited harvest in some of these stands.

Soil and Topography:

The main soil types are well-drained Covert sand on the ridges, moderately-drained Pipestone Sand on ridges and mid-slope position, and poorly-drained Kingsville fine sand at the base of slopes or in draws. The terrain is generally flat with extensive micro-relief.

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

The state land is in one block of solid ownership except one forty that is land locked in section 22. The private ownerships are mainly permanent residences and recreation property east of the compartment and farmland and permanent residences west of the compartment. The land to the north and south is owned by the state.

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

There are no known occurrences and none were located during the inventory process.

Archeological, Historical, and Cultural Features

There are no known occurrences and none were located during the inventory process.

Special Management Designations or Considerations:

None

Watershed and Fisheries Considerations:

There are no creeks in the compartment. However, the many lowland shrub stands and marshes drain into Black Creek and Mud Creek. Much of the flowing water in the compartment is through numerous intermittent drainages.

Wildlife Habitat Considerations:

Wildlife Div. agrees that Midland County is deficient reference conifer cover. This is a suitable alternative when necessary. We concur with the FMFM stand examiner that management should continue to focus on the early forest successional cover types.

Within any proposed commercial timber sale, **traditional camp sites** should be protected with **retention components** (at least ½ chain).

This is an actively utilized compartment for small game and deer hunting. Hunters certainly contribute to some of the existing road issues, which warrant considerations similar to the timber management activities. Gated closures should occur in the future – no such structures currently exist within this compartment.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of lacustrine (lake) clay, silt, sand and gravel and minor 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 for brick making in other areas of the State. This area is predominantly sand, and gravel potential in the compartment is considered limited. The pit in Section 15 appears to be for dune sand. The Edenville 15 Field is located in Section 15 & 22. The Field produced over 15,000 BO from the Berea Formation. Most of the state minerals have oil and gas leases.

Vehicle Access:

Access is good to the west side of the compartment off Baker Road. Access is poor to the east side off Baker Road, the north side off Curtis Road, and south side off Sanford Lake Road.

Survey Needs:

The compartment boundaries are not well established. Therefore, a survey is needed to establish the east and west sides of the compartment. There are some known corners in the area but they are widely scattered.

Recreational Facilities and Opportunities:

There are no established facilities in the compartment. However, there are many large traditional hunting camps in the compartment, especially in the west half. In addition, there is evidence of horse back riding, hiking, and trail riding occurring in the compartment.

Fire Protection:

The variety of cover types mixed with extensive wetland would hinder fire development. The compartment has moderate to good access, so overall the stand's potential for fire is moderate.

Additional Compartment Information:

There is some abuse by mud boggers and illegal ORV use in the compartment. The ORV use is in the east half and appears to be associated with hunting. The trails on that side of the compartment are not heavily used and most are grassed in so damage is minimal. The mud boggers and ORVs use the road system in the west half of the compartment and have done some damage to the existing road system.

11/2/2009 9:58:43 AM

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

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

MIDLAND COUNTY

COMPARTMENT: 97

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		53	448	22	77		12			13	8								633
Bog or Marsh	13																		13
Grass	13																		13
Lowlnd Brush	209		11																220
Oak			19	10															29
Swamp Hrdwds			6		146			56		3								323	534
Upland Hdwds										17									17
White Pine					4														4
Total	235	53	484	32	227		12	56		33	8							323	1463

11/2/2009 9:58:46 AM

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

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

MIDLAND COUNTY

COMPARTMENT: 97

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	606															27											633
V Bog or Marsh			13																								13
G Grass					3		10																				13
L Lowlnd Brush									220																		220
O Oak														10	19												29
E Swamp Hrdwds																				534							534
M Upland Hdwds																								17			17
W White Pine																										4	4
Total	606		13		3		10		220					10	46					534				17		4	1463

AUSABLE STATE FOREST

GLADWIN FOREST MGT UNIT

MIDLAND COUNTY

COMPARTMENT: **97**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	6268 Cds	Hardwood	439 Cds
Hardwood	975 Mbf	Hardwood	144 Mbf
Softwood	88 Cds	Sum CutVol	727 Cds
Softwood	4 Mbf		
Sum TotVol	8314 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	101
1463			

GLADWIN FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 97

Entry Year: 2011

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
1	M6	17	86	77	northern hardwood	mature	selection	2	natural regeneration	
comnts Fmd : The stand is a mixture of upland and lowlands. It could be harvested but would need to be harvested in dry summer or frozen winter. The stand is about 60% upland and 40% lowland. Selectively harvest the stand retaining 75 BA. Favor the removal of aspen and ash but do not eliminate any one species.										
11	E6	42		60	swamp hardwoods	unevenaged	selection	1	natural regeneration	
comnts Fmd : The terrain is hummocky. The stand is about 80% lowland and 20% upland. The lowlands are dryer than many in the area so it is possible to harvest the stand. When harvest it would need to be done in a dry summer or frozen winter to minimize soil damage. The aspen increases going north in the stand. Selectively harvest the stand retaining 75 BA. When harvesting the stand favor the removal of aspen.										
23	A5	12	49	60	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : This stand was harvested in 1960 for grouse run. It is on a ridge with the ground cover of poverty grass and bracken fern. The aspen is in clone pockets but the overall density is low. When it is harvested, it is expected to regenerate to a medium stocking of aspen, if not interplanted with red pine. If stand cannot be harvested commercially habitat cut.										
26	A2	16	10	55	aspen (upland)	immature		0	planting	
comnts Fmd : This stand was harvested but it did not regenerate well. Overall, the stand is barely an A2 and it could be interplanted with red pine. However, access to the stand would be tricky.										
34	O1	19	14	65	red pine	sparse		0	planting	
comnts Fmd : Regeneration came back poorly and beaver are hitting the aspen heavily. The overall stocking is a level 1. The access to the stand is poor, if access to the stand is possible trench and plant to red pine.										
39	A1	27	8	55	red pine	sparse		0	planting	
comnts Fmd : This stand was harvested but it did not regenerate well. Overall, the stand is an A1. The edges of the stand are dry but the center is wet. Most of the regeneration is on the west side of the stand. The upland portion should be trenched and interplanted with red pine and jack pine in patches. The regeneration on the west side looks like it is not leafing out.										
42	A2	111	14	65	aspen (upland)	immature		0	planting	
comnts Fmd : This stand is on a ridge with a slight depression in the center of the stand. The regeneration is patchy throughout the stand going from fully stocked to non-stocked. In addition, the tree species is variable with scattered good aspen clones but there are areas of oak and swamp hardwoods. The center of the stand has wet inclusion of lowland shrubs. The ground cover goes from lowland shrubs to poverty grasses/bracken fern/blueberry. In addition, along the L-Types the beaver have been hitting the aspen converting some A3 to E3. The upland portion should be trenched and interplanted with red pine and jack pine in patches.										
401	G0	3		55	jack pine	nonstocked		0	planting	
comnts Fmd : This stand was harvested in 2001 and it did not regenerate. Trench and plant the stand with jack pine.										
402	G0	2			jack pine	nonstocked		0	planting	
comnts Fmd : This is an open area. The north end of the stand is bracken fern and the south end is grass. There is a small pocket of aspen in the center of the stand. Trench and plant the stand with jack pine.										
404	G0	5			jack pine	nonstocked		0	planting	
comnts Fmd : This is an open area. The north end of the stand is bracken fern and the south end is grass. There is a small pocket of aspen in the center of the stand. Trench and plant the stand with jack pine.										
Total Acres.....		254								

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
2	A5	9	28	50	aspen (upland)	sparse	final harvest	3	natural regeneration	
TREATMENT LIMITING FACTORS: Inferior quality Inadequate volume due to low stocking/small diameter/etc.										
comnts Fmd : This sparse stand has pockets of A6. However, the stand is a light A5 overall. The aspen is a mixture of trembling and bigtooth aspen. It is over mature and there are signs of significant rot. Because of accessibility, low volume, and low tree soundness the stand should be cut but it may need to be done via habitat cut. The stand due south on the same soils, in compartment 98, did not regenerate well. It is a light A2.										
29	A4	13	78	55	aspen (upland)	sparse	final harvest	2	natural regeneration	
TREATMENT LIMITING FACTORS: Inferior quality Inadequate volume due to low stocking/small diameter/etc.										
comnts Fmd : The stand is an upland ridge that is quite sparse. The aspen could be cut but due to low volume and difficult access, harvesting will have to be done via habit cut. The stand due south in compartment 98 was harvested and regenerated to a patchy mix of aspen and oak. This is what this stand would be expected to regenerate as.										
46	A6	8	92	65	aspen (upland)	mature	final harvest	2	natural regeneration	
TREATMENT LIMITING FACTORS: Too wet										
comnts Fmd : Aspen is converting to lowland hardwoods, mostly red maple. This is a small stand that was left uncut as a buffer along an intermittent drainage. South end is slightly higher ground. Harvest via habitat cut.										
Total Acres.....		30								

Compartment 97
 T16N, R01W, Sec. 19-22
 County: Midland
 Unit: Gladwin
 YOE: 2011
 Acres: 1,463 GIS Calculated
 Stand Examiner: Steven Nyhoff
 Map Revised: 10/30/2009
 Map Phase: Pre-Review

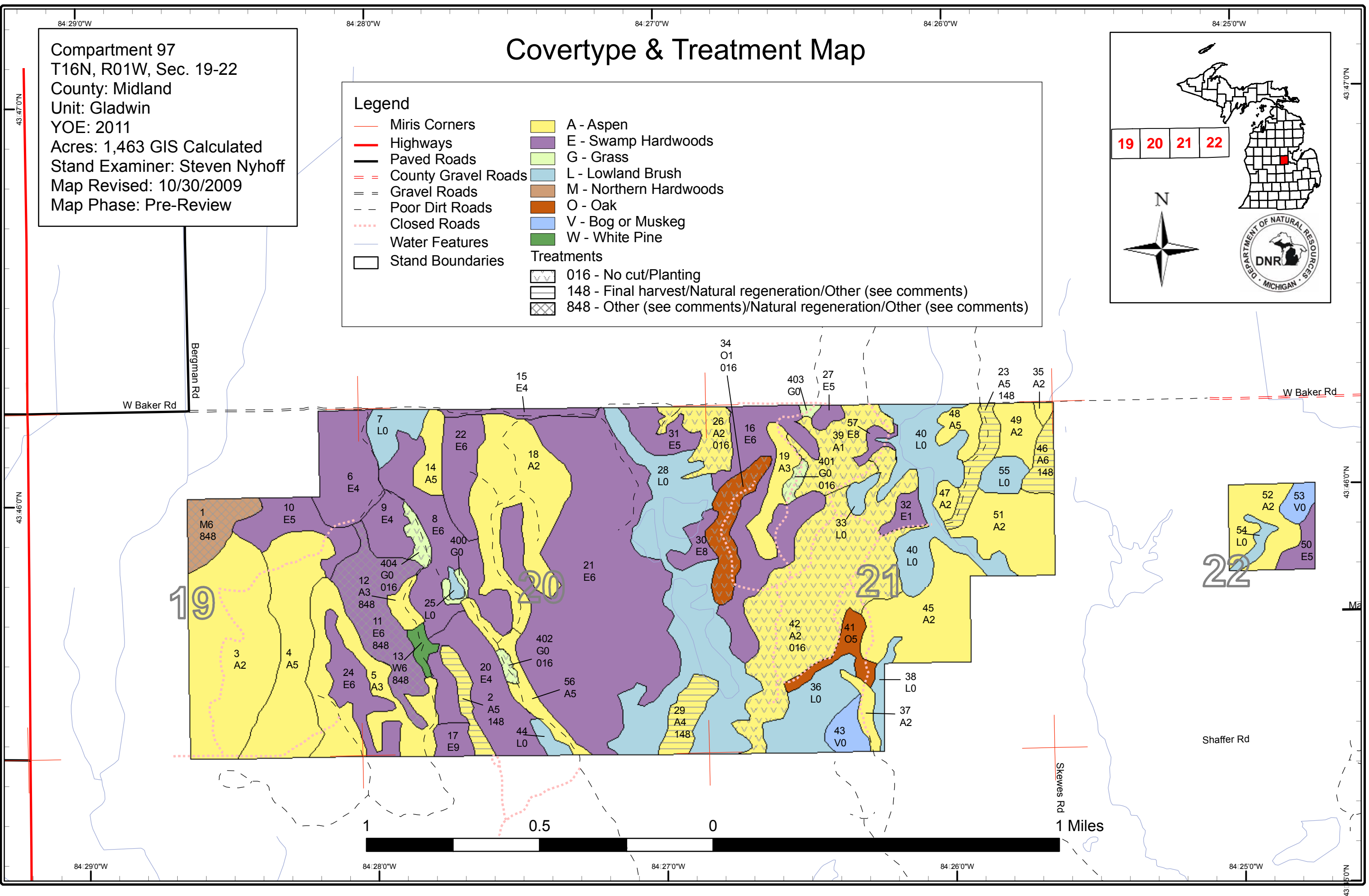
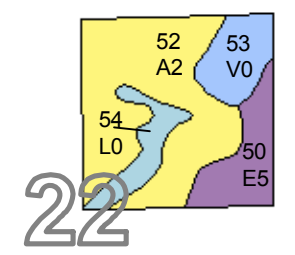
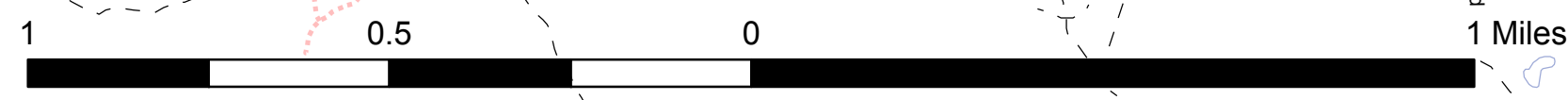
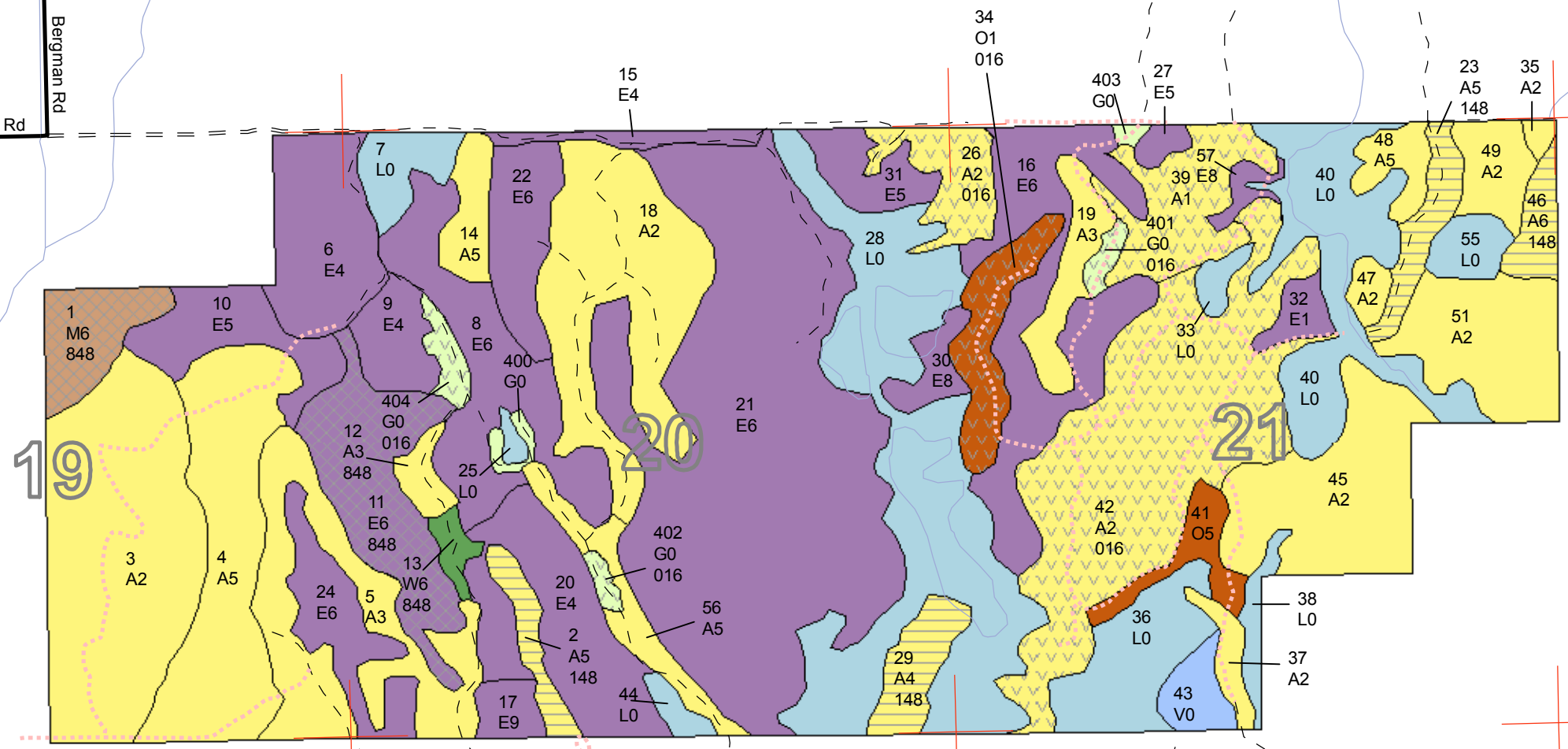
Covertypes & Treatment Map

Legend

	Miris Corners		A - Aspen
	Highways		E - Swamp Hardwoods
	Paved Roads		G - Grass
	County Gravel Roads		L - Lowland Brush
	Gravel Roads		M - Northern Hardwoods
	Poor Dirt Roads		O - Oak
	Closed Roads		V - Bog or Muskeg
	Water Features		W - White Pine
	Stand Boundaries	Treatments	
			016 - No cut/Planting
			148 - Final harvest/Natural regeneration/Other (see comments)
			848 - Other (see comments)/Natural regeneration/Other (see comments)

19 20 21 22

N



Stand Boundary Map

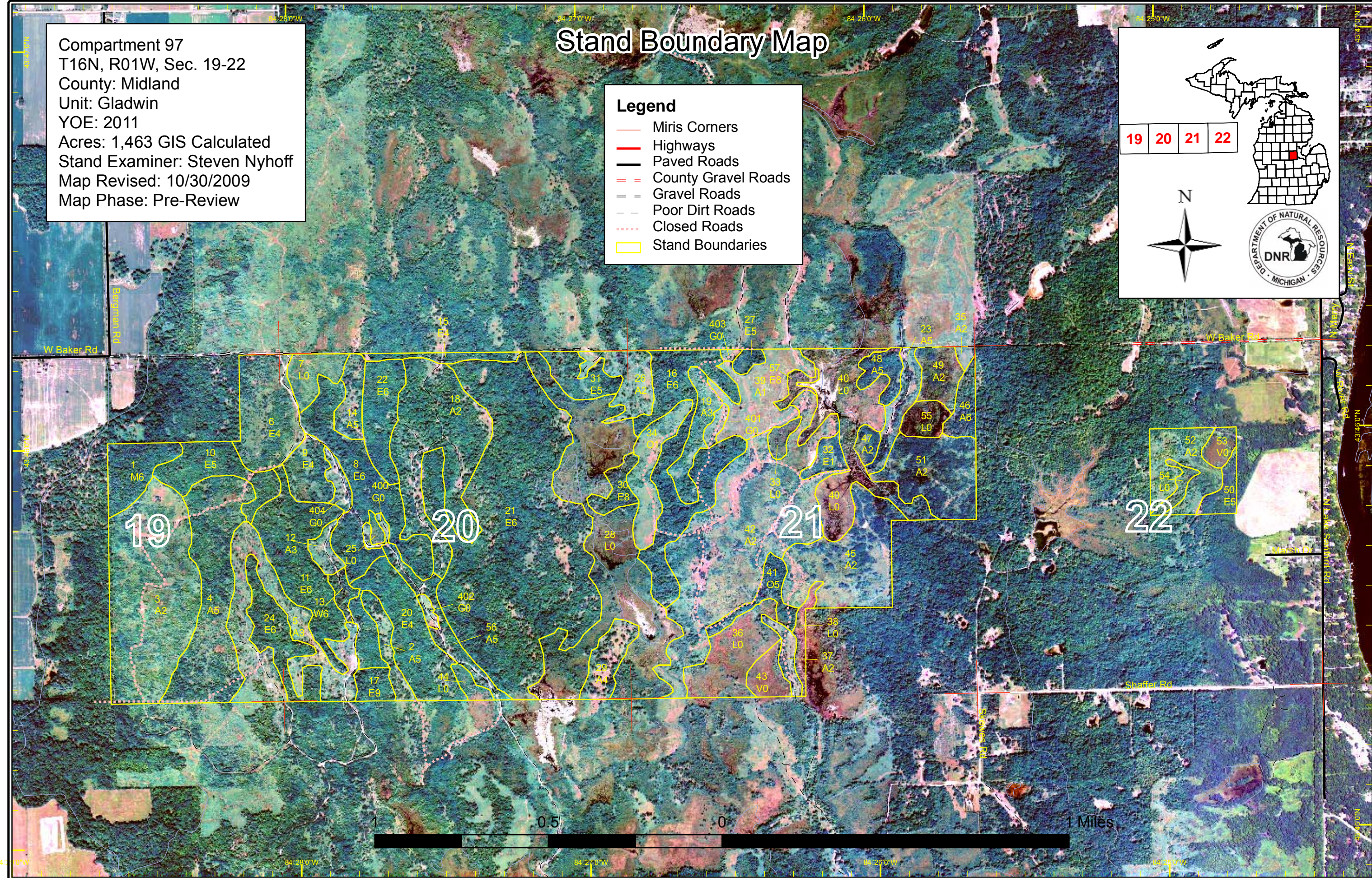
Compartment 97
T16N, R01W, Sec. 19-22
County: Midland
Unit: Gladwin
YOE: 2011
Acres: 1,463 GIS Calculated
Stand Examiner: Steven Nyhoff
Map Revised: 10/30/2009
Map Phase: Pre-Review

- Legend**
- Miris Corners
 - Highways
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - Closed Roads
 - Stand Boundaries

19 20 21 22

N

DEPARTMENT OF NATURAL RESOURCES
DNR
MICHIGAN

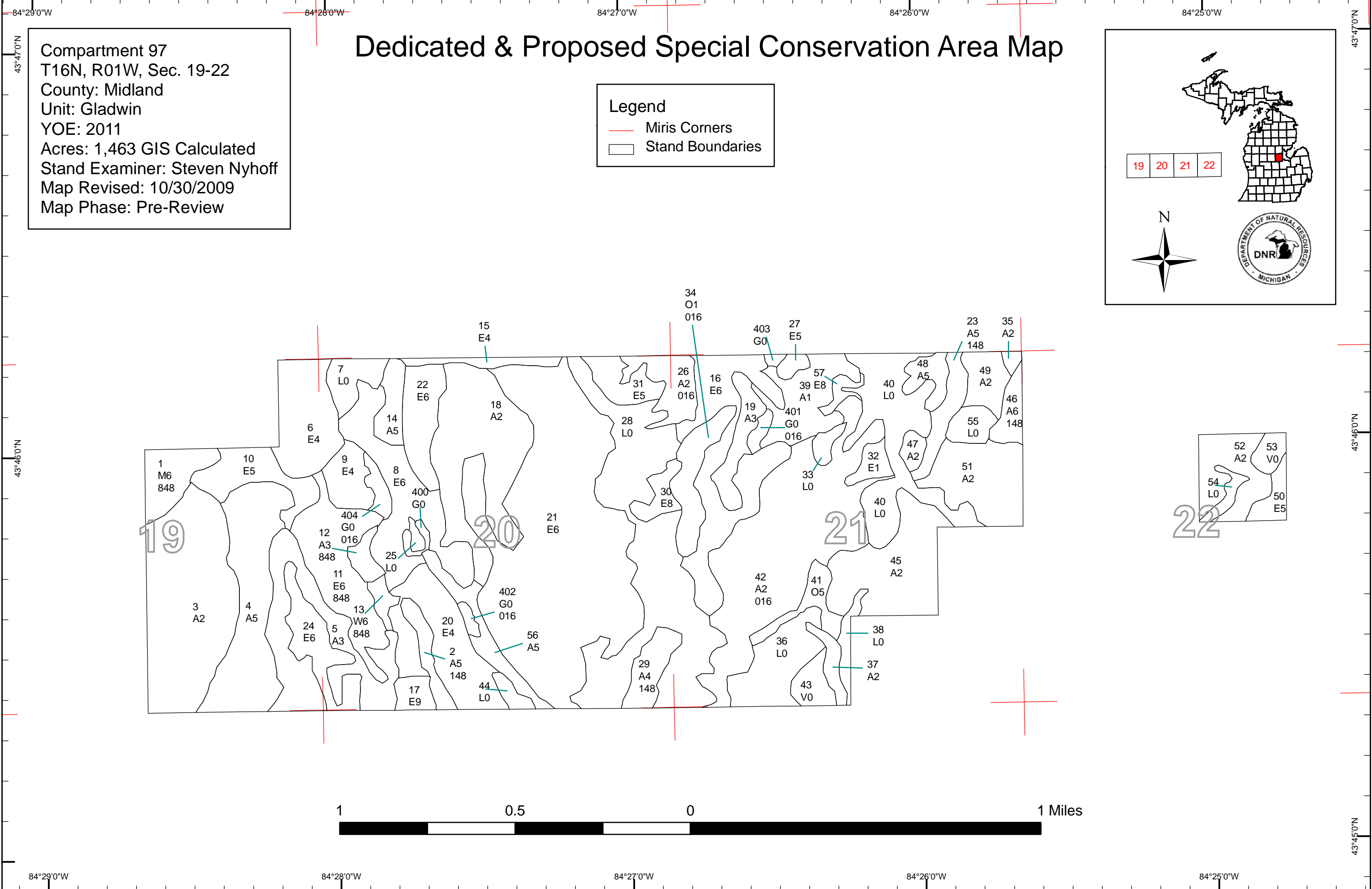
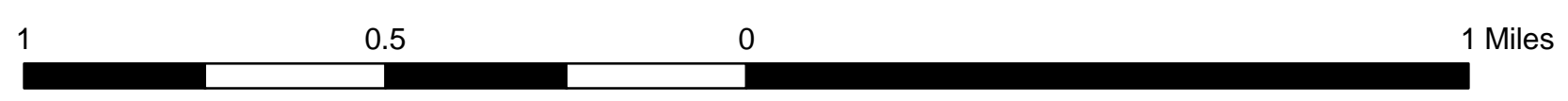
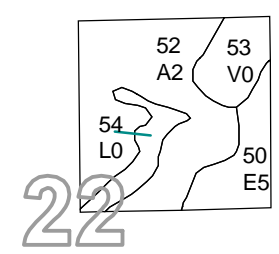
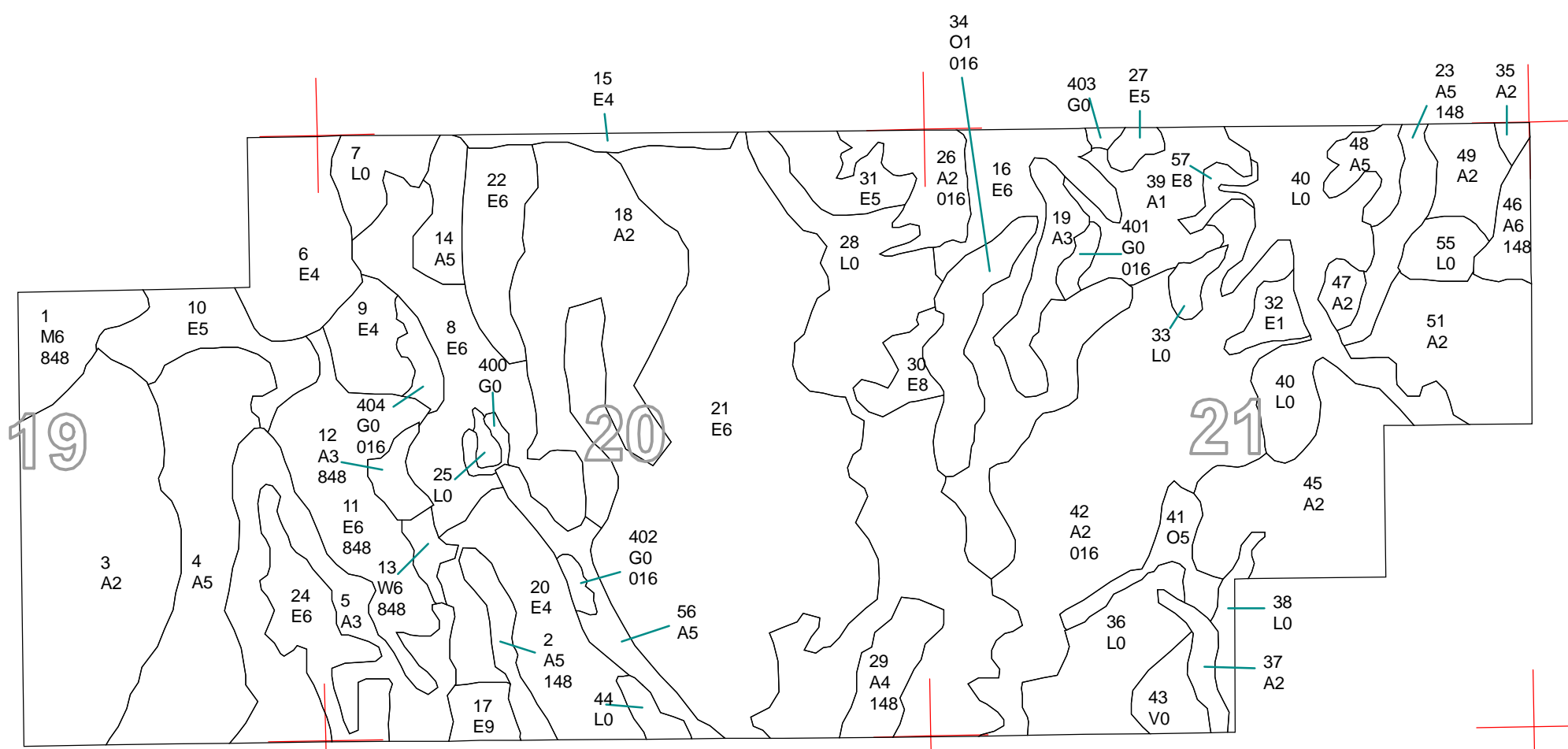


Dedicated & Proposed Special Conservation Area Map

Compartment 97
 T16N, R01W, Sec. 19-22
 County: Midland
 Unit: Gladwin
 YOE: 2011
 Acres: 1,463 GIS Calculated
 Stand Examiner: Steven Nyhoff
 Map Revised: 10/30/2009
 Map Phase: Pre-Review

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.