



GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 11 ENTRY YEAR: 2011

GIS Compartment Acreage: 2,102 acres County: Oscoda

Revision Date: 9/8/09

Stand Examiner: Craig Farrer

Legal Description: T27N, R02E Section 4 and 5 and T28N, R02E Section 32 and 33, Elmer Township.

Management Goals: To maintain species and structural diversity while addressing sustainability, forest health, wildlife habitats, aesthetics and recreational opportunities throughout the compartment.

Soils and Topography: The soils types within the compartment consist of well-drained Grayling and Graycalm sands. The topography throughout the compartment consists of flat to rolling terrain.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Ownership within the compartment is primarily State land with the exception of a large area of privately owned parcels located in Sections 32 and 33. Scattered residences, mostly seasonal, exist on these parcels. There is heavy residential use of the State land.

Unique, Natural Features (include only non-site specific and non-sensitive information): None known. The potential to have threatened or endangered species of plants and animals within the compartment does exist. Kirtland's Warbler habitat is directly adjacent to the west boundary of the compartment

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

Special Management Designations or Considerations: No special designations. Compartment is a major recreational area. The recreational trail system is a major consideration to taken into account when doing forest treatments.

Watershed and Fisheries Considerations: Within Section 32 there are three small lakes, mostly located on private property. A portion of Noodles Lake is located on state land. Muskrat Lake is located just south of this compartment.

Wildlife Habitat Considerations: To manage and maintain existing cover types and habitats for both non-game and game species. There is several managed wildlife opening within this compartment and plans to continue managing them in an open state.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 600 and 800 feet. Beneath the glacial drift is the Coldwater Shale. There is not a current economic use for the Coldwater Shale. A gravel pit is located three miles to the northeast and potential is good on the uplands. Most of the Compartment is leased for oil & gas development. This area had an Antrim Shale UA

that now has been plugged and abandoned. The entire compartment is classified as development for oil and gas.

Vehicle Access: Most of the compartment is easily accessible from the county roads system. County roads include Richardson, Penn, Noodles Lake, Nancy Brown, Farrington and Centerline. There are several state two tracks that branch off of these roads in which dead end at closed oil and gas well sites. Any newly created roads due to the treatment of stands within the compartment need to be closed when treatments are done.

Survey Needs: Survey corners exist throughout most of the compartment and therefore there should be no survey needs at this time.

Recreational Facilities and Opportunities: There are no recreational facilities, but there are several designated recreational trails that traverse through the compartment. These trails include portions of the Muskrat Lake Snowmobile Trail #4/9, the Mio Loop ORV trail, and the Mio ORV Route. Muskrat Lake State Forest Campground (temporarily closed) and an ORV staging area exist within the adjacent compartment to the south. Other recreational opportunities include hunting, mushroom/berry picking, and bird and wildlife watching in this compartment.

Fire Protection: Access for fire equipment is not a problem. Most of the compartment is accessible by County Roads. Nearby water sources include Noodles Lake and Muskrat Lake. The fire protection for this compartment is the Mio DNR and the Elmer Volunteer Fire Department.

Additional Compartment Information: A spacing study for White Pine Weevil is located in the N1/2 of Section 5. Several stands harvested last entry year were recommended for the planting of Jack Pine and were not planted. These stands have naturally regenerated to a mix of species.

LOTS Compartment Acreage: _____

- **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**

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

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

OSCODA COUNTY

COMPARTMENT: 11

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		16	57	224	40	69			13										419
Grass	31																		31
Jack Pine		253	9	328		4	38		76	58									766
Lowlnd Brush	2																		2
Oak		33	119	237		8					9	106							512
Red Pine				48			32	25		12				60				137	314
Water	8																		8
White Pine								51											51
Total	41	302	185	837	40	81	70	76	89	70	9	106		60				137	2102

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

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

OSCODA COUNTY

COMPARTMENT: 11

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	410						9																				419	
G Grass					31																						31	
J Jack Pine							766																				766	
L Lowlnd Brush									2																		2	
O Oak														512													512	
R Red Pine																314											314	
Z Water																									8		8	
W White Pine																										51	51	
Total	410				31		775		2					512		314										8	51	2102

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

OSCODA COUNTY

COMPARTMENT: 11

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	8530 Cds	Hardwood	579 Cds
Hardwood	632 Mbf	Hardwood	101 Mbf
Softwood	6496 Cds	Softwood	3113 Cds
Softwood	2649 Mbf	Softwood	586 Mbf
Sum TotVol	21588 Cds	Sum CutVol	5066 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	
2102		273	

GRAYLING FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 11

Entry Year: 2011

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
7	O9	9	94	46	oak	mature	final harvest	1		
comnts Fmd : 2009 notes: Small stand of Oak, Jack Pine and Red Maple mixed. Oak understory. Stand borders private to the north and Richardson Road to the east. Recommend final harvest. Stand may be too small to harvest by itself and should be added with another stand to be harvested. Also, may be too small to include retention. Stand should regenerate naturally to a mixed stand.										
19	J6	76	74	51	jack pine	mature	final harvest	1	planting	
comnts Fmd : 2009 Notes: Jack Pine stand with some scattered Oak, Aspen and Red Pine. Recommend final harvest and replant to Jack Pine. Old notes: "Hold until 2011 then CC and plant or seed."										
27	R9	32	54	60	red pine	immature	thinning	1		
comnts Fmd : 2009 Notes: Red Pine stand of varying density. Pockets of smaller Red Pine poles scattered throughout stand. Some Aspen, Oak and White Pine scattered within the stand. East side of stand smaller in diameter with Jack Pine scattered throughout it. Understory of Oak and Cherry of medium density. Ground cover consists of Braken Fern over Blueberry. Recommend thinning or shelterwood cut. Thin to 90 BA. Old notes: "Remove O & JP. Retain 10 BA of oak scattered throughout the stand. Stand variable density - treat with adjacent stands."										
34	R9	86		57	red pine	unevenaged		0	natural regeneration	
comnts Fmd : Distribute 100 ft. X 300 ft openings throughout stand, not to exceed 25% of the stand area. Thin remainder to 70 BA. Work with Bielecki on this stand. Harvested in spring of 2004 (720380101 Nancy Brown Selection) Recommend underburn when stand 37 to the north is underburned.										
37	R9	59	119	60	red pine	two aged	shelterwood-seed	1		
comnts Fmd : 2009: Red Pine/White Pine stand mixed with Oak, Red Maple and some Aspen. Somewhat of an heavy hardwood understory (Red Maple). ORV trail traverses through the stand. Recommend heavy shelterwood cut(leave about 40-50BA), followed by an underburn. Should leave heavier along ORV trail. Try for natural Red Pine following the burn. Will except a combination of other species for regeneration. Red Maple/Aspen competition will play a major role in what ever happens within this stand. Old notes: CC in 2011 and replant to Red Pine										
41	J6	21	52	45	jack pine	mature	final harvest	1	planting	
comnts Fmd : 2009 Notes. Recommend final harvest with standard retention. Replant to Jack Pine following harvest.										
44	J6	58	83	51	jack pine	immature	final harvest	1	planting	
comnts Fmd : 2009 Notes: Mature Jack Pine stand with some scattered Oak and Red Pine within the stand. Stand could be harvested this year of entry with retention and green up considerations. Old notes say hold until 2011 in order to regulate JP ages. Stand is healthy looking and might hold a few more year, but might not make another ten year without losing volume.										
68	A6	9	74	51	jack pine	mature	final harvest	1		
comnts Fmd : 2009 Notes: Stand keyed out to be A6 this time, was a J6 last time. Stand is a mix of Aspen and Jack Pine. Recommend final harvest and replant to Jack Pine. Old notes: "Hold until 2011 then CC." Was part of the Nancy Brown Road Oak timbersale (720370101) but did not get cut before contract expiration.										
69	A5	9	31	60	aspen (upland)	sparse	final harvest	1		
comnts Fmd : aspen poor condition										
Total Acres.....		359								

**Proposed Treatments
With Limiting Factors**

Compartment: 11

Entry Year: 2011

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
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





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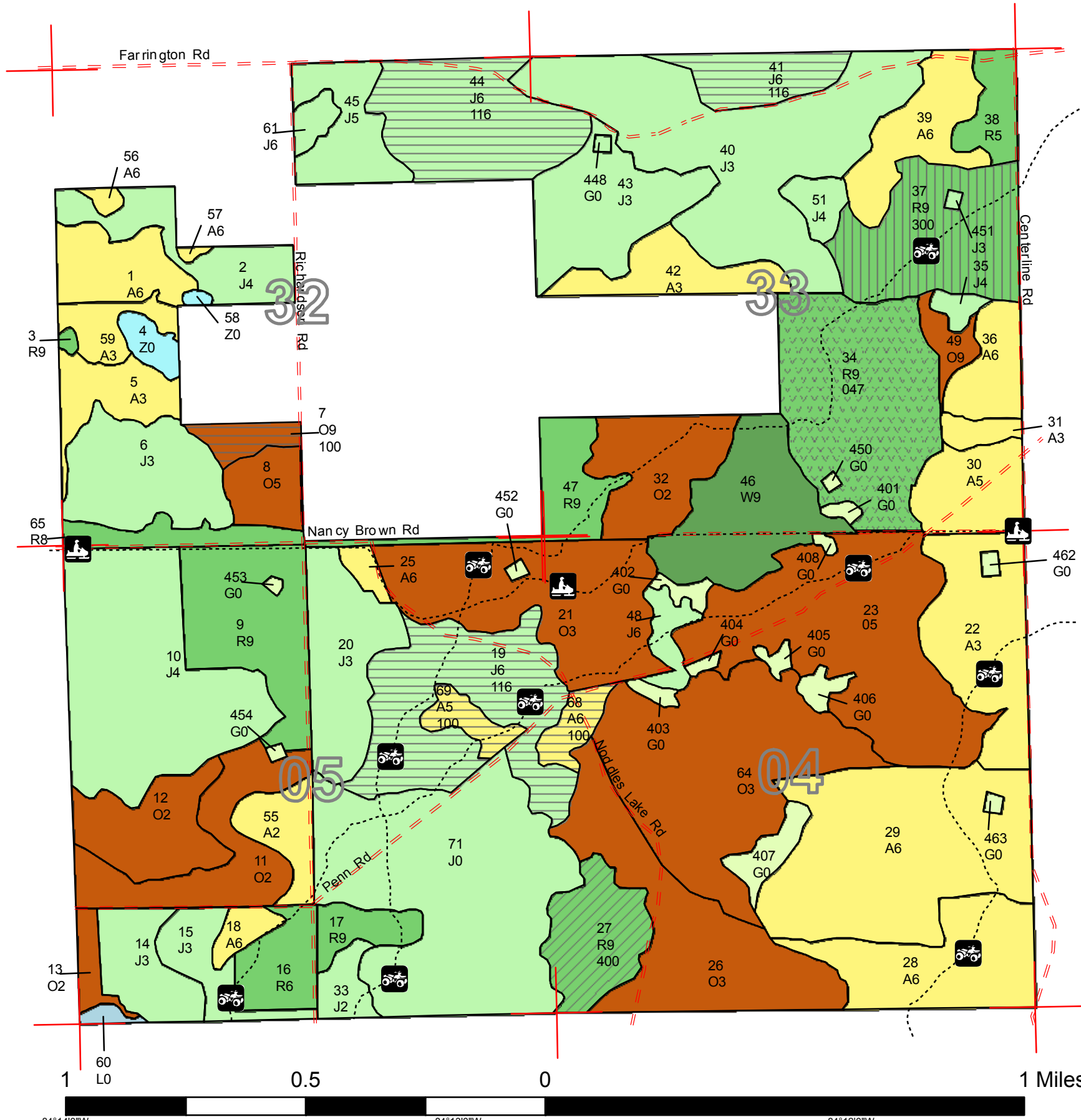
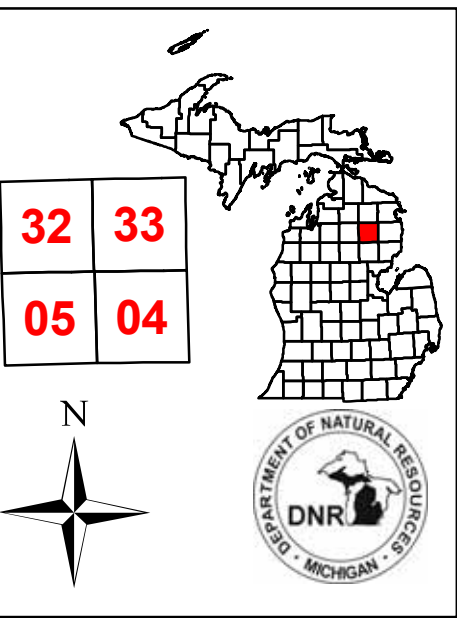
Total Acres..... 0

Covertime & Treatment Map

Compartment 11
 T27N, R02E, Sec. 4, 5
 T28N, R02E, Sec. 32, 33
 County: Oscoda
 Unit: Grayling
 YOE: 2011
 Acres: 2,102 GIS Calculated
 Stand Examiner: Craig Farrer
 Map Revised: 9/08/2009
 Map Phase: Pre-review

Legend

- Miris Corners
- - - County Gravel Roads
- Trails
-  ORV Trails
-  Snowmobile Trails
-  Stand Boundary
-  047 - Natural Regeneration/Prescribed Burning
-  100 - Final Harvest
-  116 - Final Harvest/Planting
-  300 - Shelterwood - Seed
-  400 - Thinning
- A - Aspen
- G - Grass
- J - Jack Pine
- L - Lowland Brush
- O - Oak
- R - Red Pine
- W - White Pine
- Z - Water



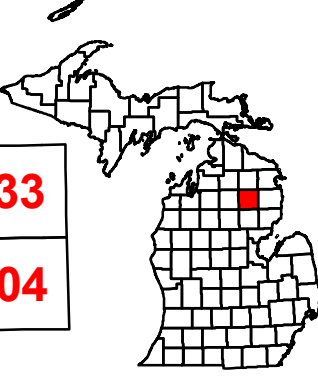
Stand Boundary Map



Compartment 11
 T27N, R02E, Sec. 4, 5
 T28N, R02E, Sec. 32, 33
 County: Oscoda
 Unit: Grayling
 YOE: 2011
 Acres: 2,102 GIS Calculated
 Stand Examiner: Craig Farrer
 Map Revised: 9/08/2009
 Map Phase: Pre-review

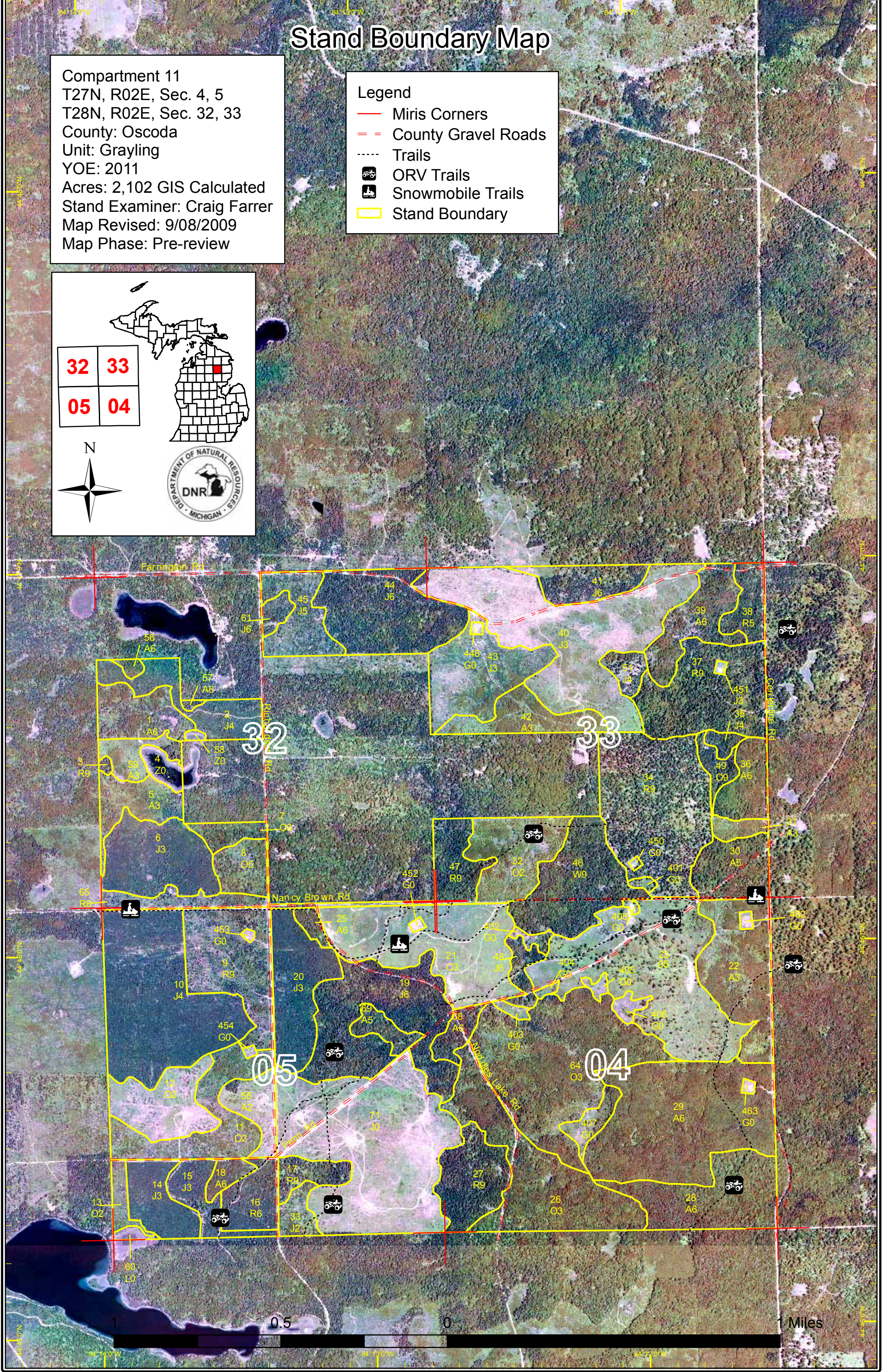
Legend

- Miris Corners
- - - County Gravel Roads
- Trails
-  ORV Trails
-  Snowmobile Trails
- Stand Boundary

32	33
05	04



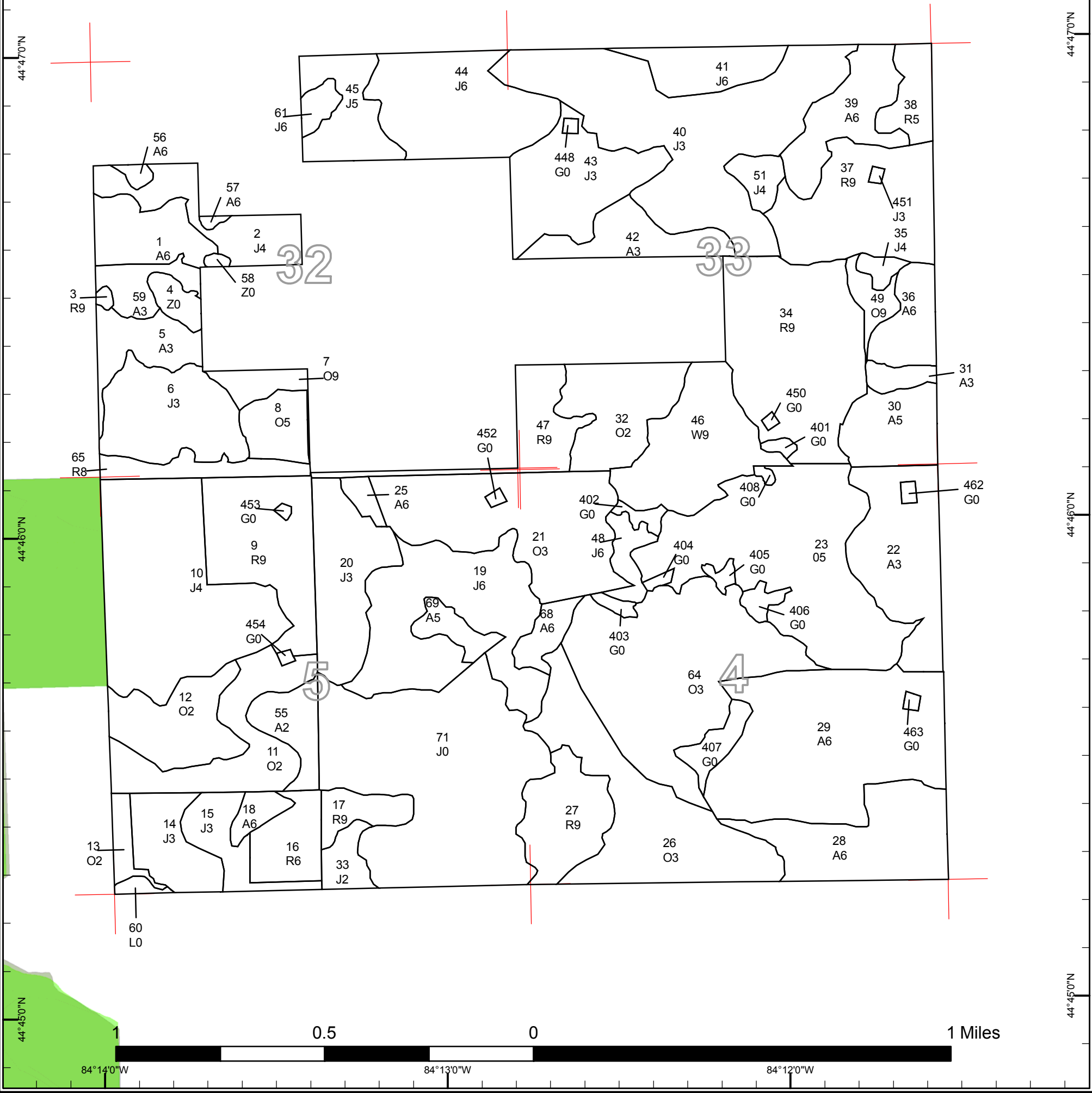


Dedicated & Proposed Special Conservation Area Map

Compartment 11
 T27N, R02E, Sec. 4, 5
 T28N, R02E, Sec. 32, 33
 County: Oscoda
 Unit: Grayling
 YOE: 2011
 Acres: 2,102 GIS Calculated
 Stand Examiner: Craig Farrer
 Map Revised: 9/08/2009
 Map Phase: Pre-review

Legend

- Miris Corners
- Stand Boundary
- Dedicated Special Conservation Areas
- OI Special Conservation Areas
- Kirtland Warbler Habitat





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
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
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.