



GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 66 ENTRY YEAR: 2011

GIS Compartment Acreage: 1912 County: IOSCO

Revision Date: 5/21/09

Stand Examiner: Patrick Cotant

Legal Description: T24N R8E, Sections 4, 5 & 6. Grayling Forest Management Unit, Iosco County

Management Goals: To maintain species diversity while also addressing sustainability, forest health, productivity, wildlife habitat requirements, aesthetics, best management practices and recreational opportunities throughout the compartment.

Soils and Topography: Topography within this compartment is flat to gently rolling with ridges in the northern portions of the compartment, concentrated along drainages and small creeks. The major soil complex present in this area is Grayling sand with small inclusions of other types present, the most notable being Graycalm-Klackling sands. This association is found primarily on upland flats and low knolls which are dominated by jack pine stands commonly in association with red pine and oak species. This soil complex is characterized as being excessively drained with major management concerns including equipment limitation, seedling mortality and erosion from wind and water. Windthrow is also a concern throughout this soil type complex. The bottomlands of this compartment, mainly to the west and north are made up mainly of Tawas-Lupton Muck, Dawson-Loxley Peat and Leafriver Muck associations. These soil complexes are characterized as being poorly drained and are most often associated with a water course or water body. Major management concerns in these areas include equipment limitation, windthrow and seedling mortality

Ownership Patterns, Development, and Land Use in and Around the Compartment: The entire compartment is under state ownership. Part of this compartment was used for military training by nearby Wurtsmith Air Force Base. As a result, section 6 has been identified as a hazard area and a Director's order was obtained in July 2009 to close this section off to foot and vehicle entry. Private parcels exist adjacent to compartment only in the northeast corner of section 6. The western edge of the compartment is adjacent to USFS land.

Unique, Natural Features (include only non-site specific and non-sensitive information): Natural features include a relatively deep valley which contains Duval Creek. This is a narrow coldwater creek with a mixture of sand and gravel substrate. Cedar, white pine and red maple, and birch inhabit this valley providing shade to the stream while also maintaining water quality. Abundant wildlife utilizes the cover and variable food sources throughout the valley.

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

Special Management Designations or Considerations: Section 6 is part of the Wurtsmith FUDS project. This area was a historical bombing range used by the military in the 1950's. Recent evidence of ordnances being found in the area has resulted in closure of all ORV trails in section 6 as well as a prohibition of foot

traffic into this area based on safety concerns. Stand 1 was part of the actual bombing range, with surrounding stands serving as buffers. A Director's Order was obtained in 2009 to enforce the closure of Section 6. The closure will remain until surveys reveal if areas are safe to reopen to the public. Meanwhile all timber harvesting prescribed will be factor limited until equipment can access the area.

There is potential for dry prairie plants in grassy openings to include pine barren's species of Hill's thistle, rough fescue, Alleghany plum and Pale Agoseris. There also is potential for pine barren's species including dusted skipper, grizzled skipper and red-legged spittlebug to be present in these openings. Warbler species will be found in the young jack pine stands that abound in this region. There is also the potential for Eastern Massasauga Rattler, wood turtle and loon to exist within the riparian zones of this compartment. Bald Eagle have been documented in this area.

Watershed and Fisheries Considerations: Duval Creek traverses compartment along with multiple tributaries in the north-central portion of section 5. Forest management in the riparian areas of these creeks should consider ramifications and negative impacts of any activity to water quality. Potential erosive areas should be avoided at all times.

Wildlife Habitat Considerations: This compartment is valuable for many species of wildlife. Jack pine forests along with plantations that are dense and large in terms of acreage provide tracts of land used for thermal and protective cover throughout the year by many wildlife species. The creek corridor and surrounding swamps and riparian forests also provide large tracts of uninterrupted land used by a variety of wildlife species for breeding and nesting, protection from predators and forage grounds. Management decisions within this compartment are influenced greatly by wildlife considerations.

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 400 and 600 feet. Beneath the glacial drift is the Coldwater Shale. The Coldwater does not have a current economic use. A gravel pit is located two miles to the northeast and there could be potential. This compartment is not currently leased for oil and gas development.

Vehicle Access: Access within this compartment is variable. The west side of the compartment is bounded by Wilber Road, a county road that extends .5 miles north along Section 6. It is difficult to reach the northern portions of the compartment because of roads ending at deep drainages. Access to the remainder of the compartment is from Bissonette Rd, a county road. Two-tracks and forest roads head north from the Bissonette Road and reach this compartment after crossing semi-maintained Fawn Rd. Note, this section of Fawn Road is not designated county road, it is a state forest trail extending off a county road located to the west. The forest roads are in poor shape and are not maintained throughout the winter months.

Survey Needs: The northern side of compartment 66 should be surveyed when feasible.

Recreational Facilities and Opportunities: The compartment contains part of the Old State House ORV Route. This general area receives heavy ORV use. Hunting, snowmobiling and fishing also occur regularly within the compartment.

Fire Protection: Fire protection is considered in this area because of its close proximity to large jack pine plantations and its tendency for quite droughty soils. Many of the management decisions within this compartment are based on and influenced by the stands probability to be a fire hazard before and after treatment. Section 6 which is part of the FUDS designation is a no plow zone and fire vehicles are to remain on designated roads for all fire suppression activities.

Additional Compartment Information:

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

IOSCO 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				137															137
Cedar													73						73
Hemlock										48									48
Jack Pine		248	116	66		24	94	63		64									675
Non Stocked	15																		15
Oak				174			187			25			121						507
Red Pine													51						51
Swamp Hrdwds				57				82			35								174
White Pine			19	179		24			10										232
Total	15	248	135	613		48	281	145	10	137	35		245						1912

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

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

IOSCO 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	137																										137
C Cedar				73																							73
H Hemlock						48																					48
J Jack Pine							675																				675
X Non Stocked													15														15
O Oak	18						73							412												4	507
R Red Pine																51											51
E Swamp Hrdwds																				174							174
W White Pine																										232	232
Total	155			73		48	748						15	412		51				174						236	1912

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

IOSCO COUNTY

COMPARTMENT: **66**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	4953 Cds	Hardwood	280 Cds
Hardwood	401 Mbf	Hardwood	84 Mbf
Softwood	7553 Cds	Softwood	902 Cds
Softwood	628 Mbf	Sum CutVol	1350 Cds
Sum TotVol	14564 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	
1912		113	

GRAYLING FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 66

Entry Year: 2011

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status	
108	O6	4	49	50	white pine	mature	final harvest	1			
comnts Fmd : Stand was separated and cut with adjacent compartment 65 (Alcona Jack 72-015-06-01) in 2009. Stand was in the process of being cut at time of inventory and will be completely updated at time of sale closure. (old comment) Oak very poor quality. Manage for JP. Separated out from original stand 8 in 2006 and treated 8 acres with adj sale in compt 65 as Final harvest.- convert to mix of oak and white pine and jack pine. If inadequate natural mix of regen then replant or supplement with JP.SJ Thiel, 4/12/06											
Total Acres.....		4									

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
5	J6	36	79	46	jack pine	mature	final harvest	1		

TREATMENT LIMITING FACTORS: Delayed treatment for age/size class diversity

comnts Fmd : Quite a mixed stand with jack pine dominant overall. Red pine and white pine present in descent numbers and are growing well for the most part. Poor quality oak present as well. Thick understory, some large red and white pine present in overstory. ORV route travels through west side of stand and along eastern edge. Harvest stand as final harvest with reserves, removing all jack pine and oak. Leave red and white pine. Regeneration following harvest will most likely be oak species along with jack pine and natural red and white pine regen. Finger of stand extends to the southwest along stand 36. More oak is present as this is a transition zone between stands 5 and 36. Final harvest this area leaving a few reserve trees. This should help to create more of a thicker edge by regenerating the oak and obtaining some natural regen of jack pine, red pine and white pine. Where stand meets stand 106, similar composition can be found. Stand 106 was delineated because of species differences and stocking levels but also because of topographical differences. This stand line should be maintained during sale setup to avoid steep slopes and erosion issues.

8	O6	73	49	50	jack pine	mature	final harvest	1	planting	
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TREATMENT LIMITING FACTORS: Military use/easement/lease/long-term agreement

comnts Fmd : Note: This stand is located in the FUDS restricted area, due to risk of military explosive devices that may remain in the area from a historical bombing range (see std 1), the area was closed to all foot and vehicle traffic in 2009 until military studies reveal the area is clear of devices. No entry can be obtained to harvest this stand until military clearance is obtained. The stand is factor limited - it is anticipated it will be at least 5 years for studies to be completed. SJT. Mixed oak pine stand with oak more plentiful in northern portion of stand while central area is more of a true mixed stand with oak and jack pine dominant, oak is of smaller diameter in these areas. Oak is of very poor quality. Understory is thick white pine in places however not quite as heavy as adjacent stand 9. Oak understory thick in places however browse is heavy in pockets-not much recruitment into sapling layer. Treat stand by final harvesting and planting to Jack pine. Leave a few islands within stand, attempt to concentrate these where white pine regen is thickest in order to maintain oak/pine mixture within these pockets as jack pine begins to decline. Stand 108 was delineated to protect slope leading into stand 6. Be careful when setting up boundary to avoid topography that is too steep for timber harvest operations. Oak very poor quality. Manage for JP. Consider harvest and planting in 2011. Excluded portion of stand north of trail road in 2006- see std 108. SJ Thiel 4/06 Treat portino of stand north of trail road with adj stand 44 of compt 65 per review discussion iwhen reviewing compt 65. SJT

Total Acres..... 109

Stand Boundary Map

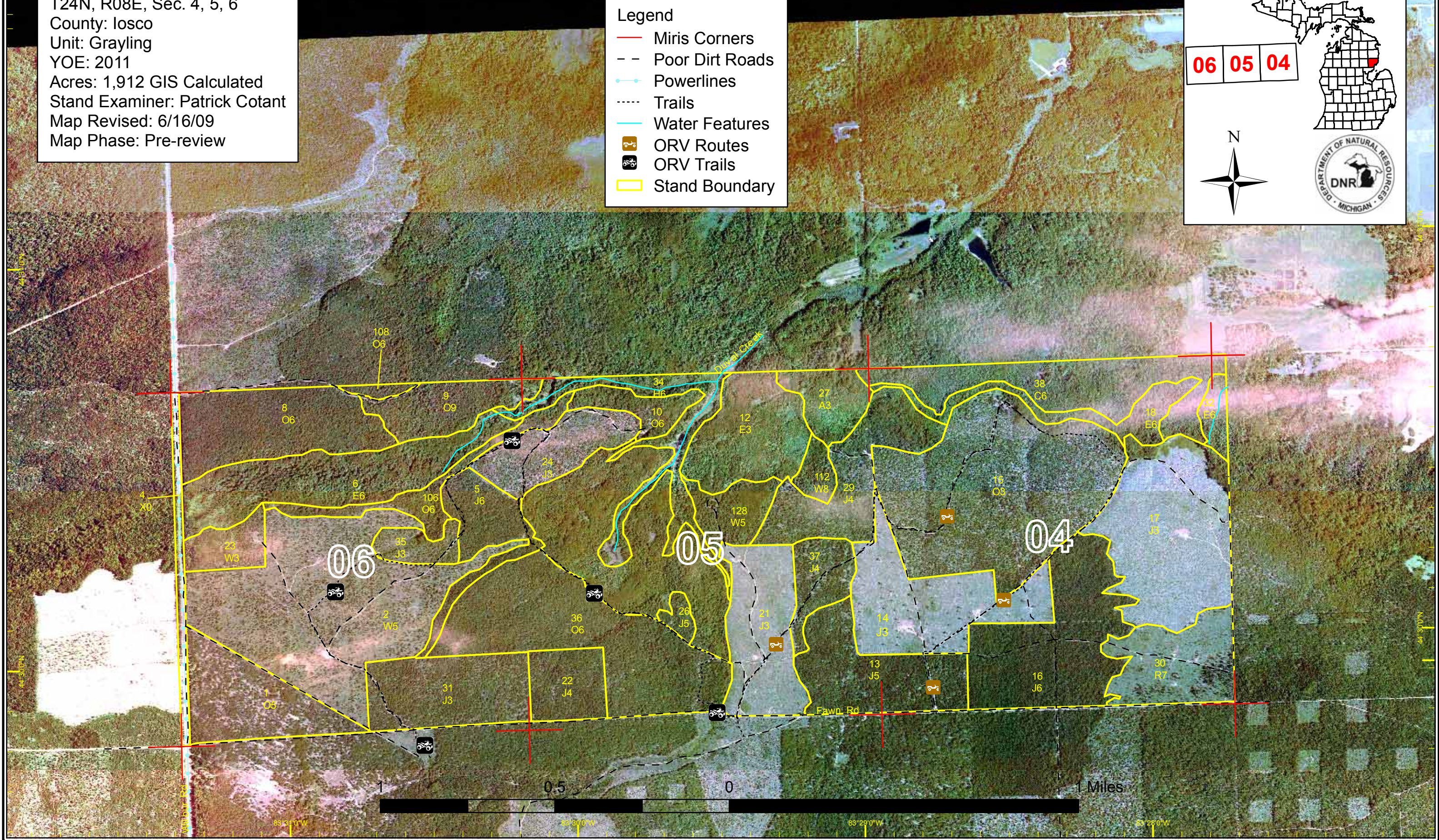
Compartment 66
T24N, R08E, Sec. 4, 5, 6
County: Iosco
Unit: Grayling
YOE: 2011
Acres: 1,912 GIS Calculated
Stand Examiner: Patrick Cotant
Map Revised: 6/16/09
Map Phase: Pre-review

- Legend
- Miris Corners
 - Poor Dirt Roads
 - Powerlines
 - Trails
 - Water Features
 - ORV Routes
 - ORV Trails
 - Stand Boundary

06 05 04

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



DNR
DEPARTMENT OF NATURAL RESOURCES
MICHIGAN

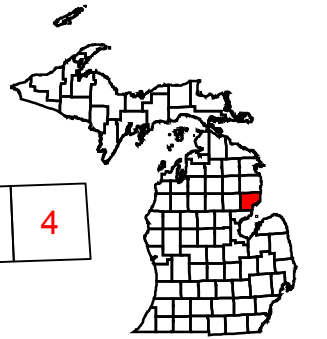


Dedicated & Proposed Special Conservation Area Map

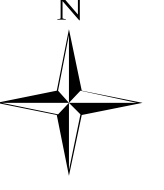

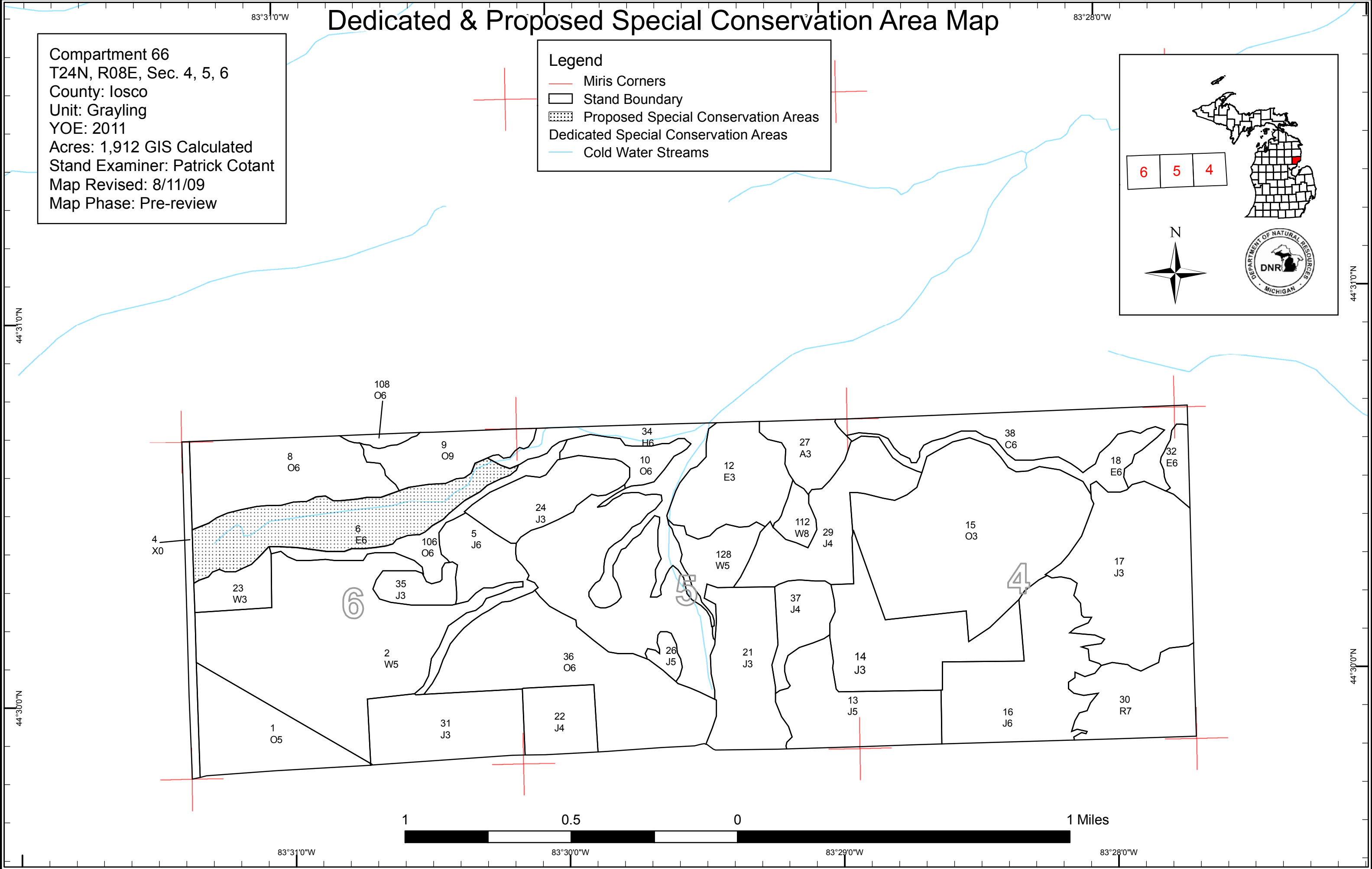
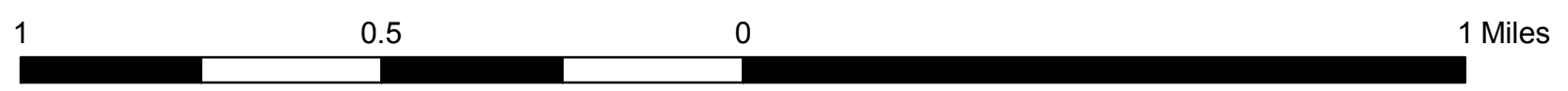
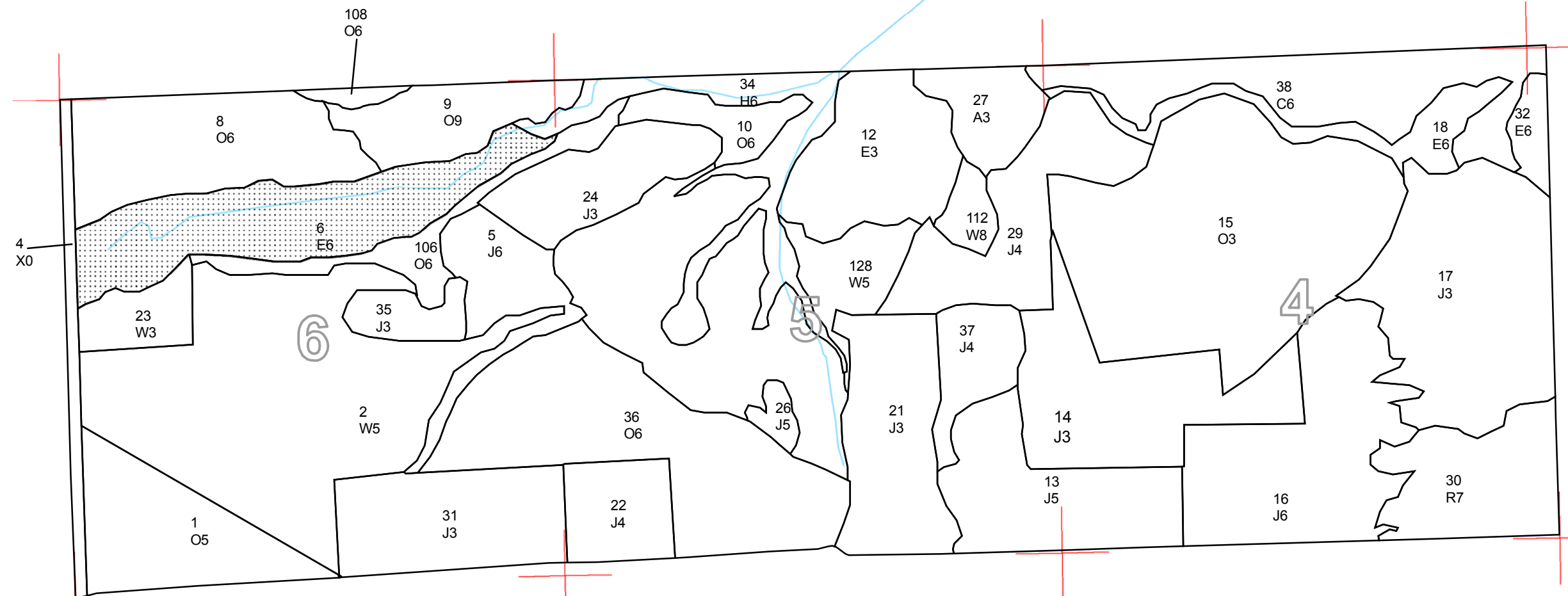
Compartment 66
 T24N, R08E, Sec. 4, 5, 6
 County: Iosco
 Unit: Grayling
 YOE: 2011
 Acres: 1,912 GIS Calculated
 Stand Examiner: Patrick Cotant
 Map Revised: 8/11/09
 Map Phase: Pre-review

Legend

-  Miris Corners
-  Stand Boundary
-  Proposed Special Conservation Areas
-  Dedicated Special Conservation Areas
-  Cold Water Streams



6 5 4



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	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.