



## GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

**COMPARTMENT # 286 ENTRY YEAR: 2010**

**GIS Compartment Acreage: 1401 County: Crawford**

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**Revision Date:** September 12, 2008

**Stand Examiner:** Patrick Cotant

**Legal Description:** T27N R1W Sections 11, 12, 13 and 24

**Management Goals:** To maintain species diversity while also addressing sustainability, forest health, productivity, wildlife habitat requirements (specifically the Kirtland Warbler), aesthetics, best management practices and recreational opportunities throughout the compartment. In addition, to maintain a healthy habitat for the endangered species *Dendroica kirtlandii* (Kirtland's Warbler), taking into account warbler management plan directives, species diversity and visual management.

**Soils and Topography:** Topography within this compartment is flat to gently rolling with some steep, narrow ridges transecting portions of the compartment, mainly localized in section 24. In terms of land forms present, this compartment consists mainly of upland flats throughout with stream terraces along the East Branch of Big Creek. The creek is actually not located within the compartment boundaries, however nearby landforms that are within the compartment are influenced by the river corridor. The major soil complex present in this area is Grayling sand with small inclusions of other types present, most notable being Graycalm-Grayling 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 along the East Branch of Big Creek are made up mainly of Tawas-Lupton Muck 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 bulk of this compartment is state land separated by large blocks of private mainly localized along the Big Creek corridor. Recreational use is quite common in this area, mainly in the form of hunting, fishing and snowmobile riding. Snowmobile Trail #489 traverses the compartment in many locations and is used heavily throughout the snowmobile season. This trail is also part of the Midland-to-Mackinaw hiking and riding trail and therefore has relatively heavy use during the summer months as well. North of the compartment is Walsh Road Trail Camp so this area is used quite frequently for long distance horse rides. The compartment also has a great deal of land that is used quite commonly for deer hunting as well as some grouse and turkey hunting.

**Unique, Natural Features:** The East Branch of Big Creek runs in an east/west direction through this compartment. The river is approximately 10-25' wide through this stretch and is considered an excellent trout fishery. Wildlife abound within the river corridor and the surrounding areas.

**Special Management Designations or Considerations:** A portion of the compartment is within the Down River & Monument Kirtland's Warbler Management Unit, a High Conservation Value Area (HCVA). 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:** While not technically within the compartment, the Big Creek watershed is of great importance within this area for wildlife as well as recreational purposes. The creek is influenced greatly by nearby management decisions and therefore should always be considered when making management recommendations in this vicinity.

**Wildlife Habitat Considerations:** This compartment is valuable for many species of wildlife. Jack pine 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 river corridor and surrounding swamps 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:** Due to the close proximity of this compartment to the river corridor along with much of the area being part of or nearby swamp lands, mineral development is quite limited. Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 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 in Section 9 and potential is good. None of the Compartment is currently leased for oil and gas, but it offsets the Conner's Marsh Field. The field has produced over 20 Bcf gas from the Ordovician Prairie du Chien.

**Vehicle Access:** Access to this compartment is adequate via North Down River Road and Walsh Road. Many two-tracks and forest roads travel from these main roads into the surrounding forest land.

**Survey Needs:** Survey information within this compartment is good. The majority of corners are confirmed where state land intersects private. Two sets of double corners exist at the Crawford/Oscoda county line.

**Recreational Facilities and Opportunities:** As mentioned above, this area receives quite a bit of multi-use recreation. Snowmobile Trail #489, the Midland-to-Mackinaw hiking trail and access to hunting and fishing grounds adds to the appeal of this compartment to the outdoor enthusiast.

**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.

➤ **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

CRAWFORD COUNTY

COMPARTMENT: 286

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	98																										98
G Grass					17																						17
J Jack Pine							629																				629
P Lowlnd Poplr									17																		17
N Marsh										2																	2
Q Mx Swmp Cnfr											177																177
X Non Stocked													9														9
O Oak														324													324
R Red Pine															19												19
T Tamarack																					42						42
U Upland Brush							49																18				67
<b>Total</b>	98				17		678			17	2	177	9	324		19					42						1401

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

CRAWFORD COUNTY

COMPARTMENT: **286**

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

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	3188 Cds	Softwood	120 Cds
Hardwood	507 Mbf	Softwood	7 Mbf
Softwood	4216 Cds	Sum CutVol	134 Cds
Softwood	257 Mbf		
Sum TotVol	8932 Cds		
<b>Total Cmpt Acres</b>		Acres Proposed For Cut.....	
1401		10	

**GRAYLING FOREST MGT UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 286 Entry Year: 2000**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
<b>8</b>	<b>U2</b>	30	7	49	jack pine	sparse		0	planting	
<p>comnts Fmd : Stand final harvested in 2001. Looks to have not been planted, although possibly trenched. Currently a U-type with cherry brush present, heavier on west side. Some jack pine seedlings present, mostly near old landing. FTP W72-451 has been sent in for replanting. (old comment) 1998: CLEAR CUT AND REPLANT TO JACK PINE. POSSIBLITY OF USING DIRECT SEEDING INSTEAD OF PLANTING. MNFI IS TO INSPECT FOR ENDANGERED SPECIES. LEAVE SNAGS. Clear cut spring of 2001, contract # 72-036-00-01.</p>										
<b>10</b>	<b>U3</b>	19	7	49	jack pine	sparse		0	planting	
<p>comnts Fmd : Final harvested in 2001. Mixed stand that was supposed to be planted to jack pine, however it does not look like it's been planted, possibly trenched. Overall the stand is a mixture of A3, U2/3 and J3. Jack pine concentrated in the western portions of the stand while aspen occupies the center and u-type remains dominant around the edges. FTP W72-451 has been sent in for replanting. (old comment) 1998: CLEAR CUT AND REPLANT TO JACK PINE OR DIRECT SEED IF POSSIBLE. MNIF IS TO INSPECT FOR ENDANGERED SPECIES. LEAVE SNAGS. Clear cut the spring of 2001, contract # 72-036-00-01.</p>										
<b>36</b>	<b>R6</b>	10	48	59	red pine	immature	thinning	1		
<p>comnts Fmd : Descent red pine stand with jack pine and few oak mixed throughout. Red pine is growing well, some regeneration of oak is being browsed heavily. Stand is variable in terms of stocking with some openings present, mainly occupied by grasses and some sweetfern. Treat stand by removing jack pine and thinning red pine. Remove approximately 1/3 of the volume of red pine, slightly more in some locations in order to release the highest quality individuals while also attempting to regenerate red pine, oak and jack pine. Management objective is red pine however a mixed variety of regeneration including oak, jack pine and red pine is anticipated and would be desirable for diversity purposes. Oak should also be spec'd to be removed during harvest. (no old comment)</p>										
<b>Total Acres.....</b>		<b>59</b>								

**Proposed Treatments  
With Limiting Factors**

**Compartment: 286**

**Entry Year:2010**

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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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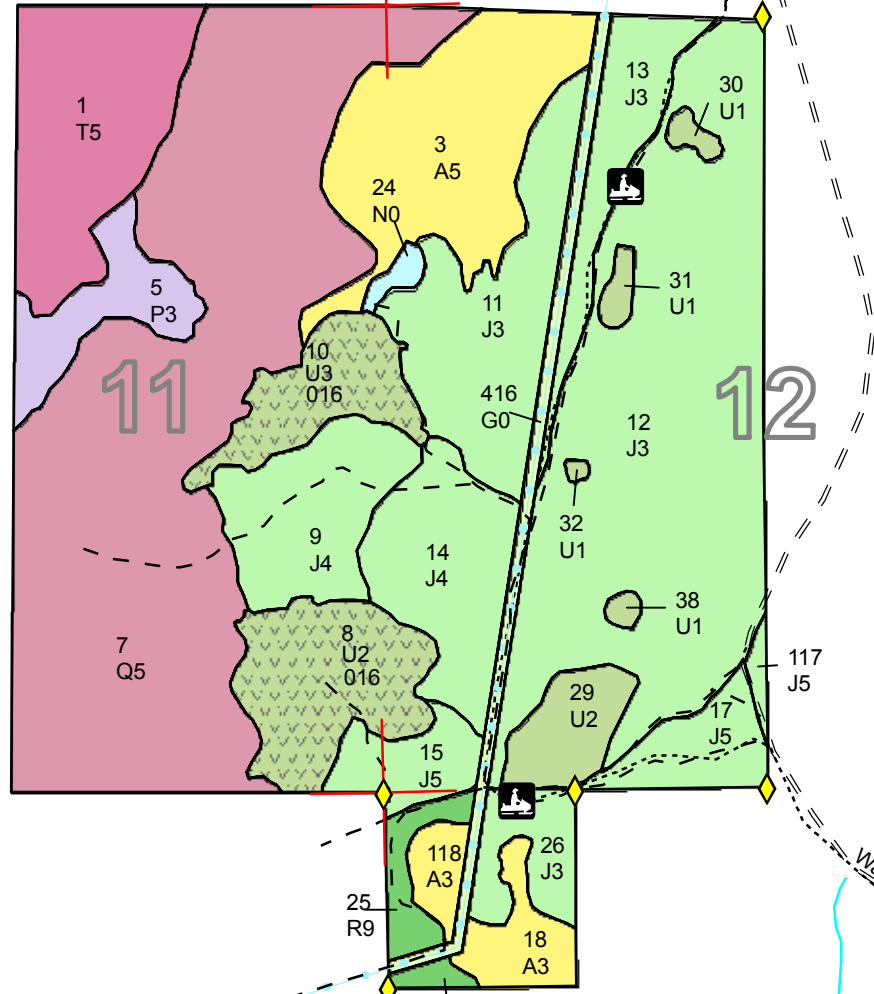
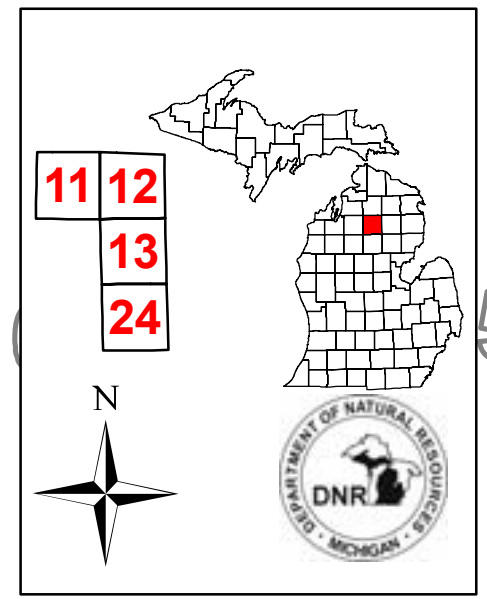
TREATMENT LIMITING FACTORS:

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**Total Acres..... 0**

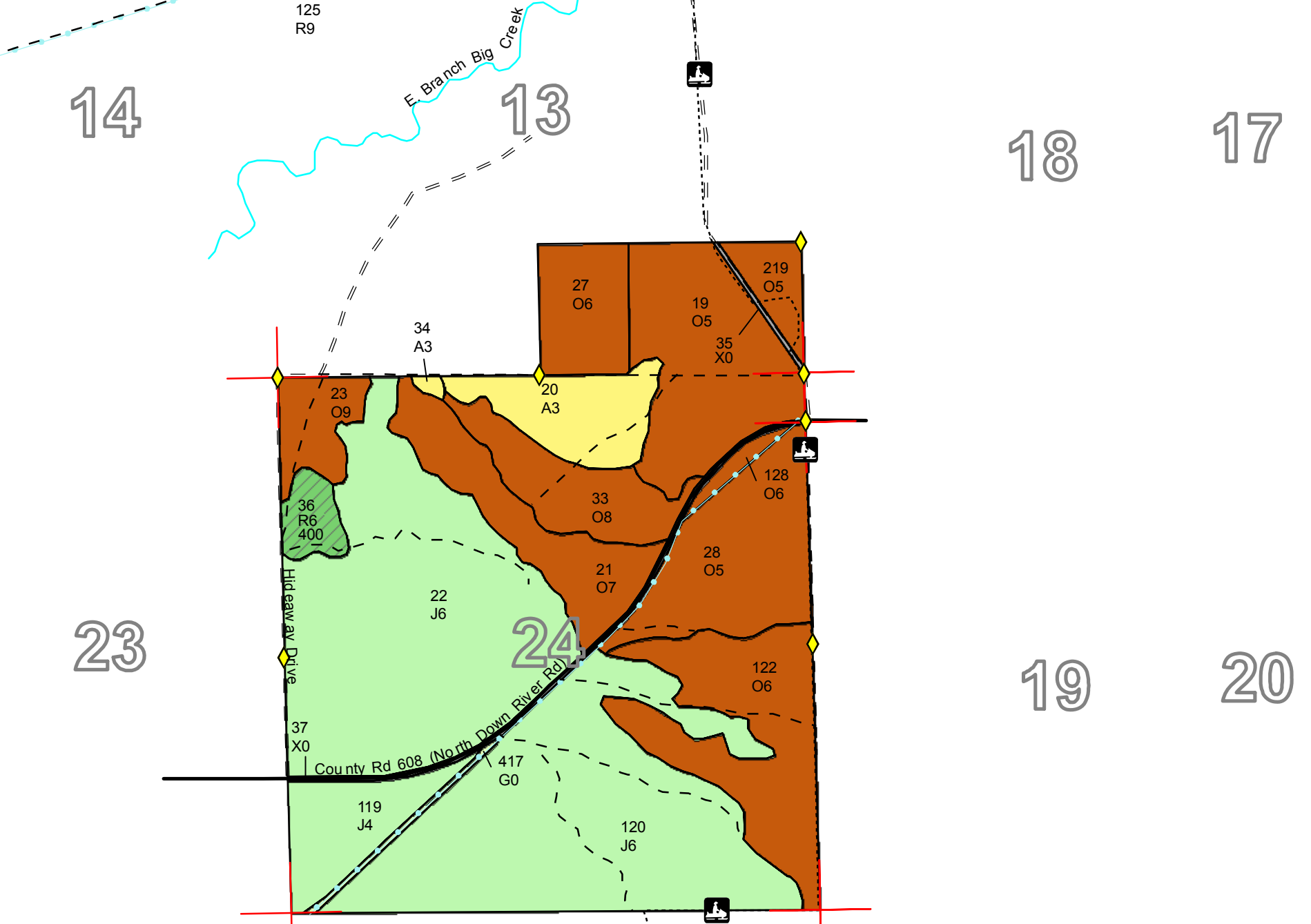
Compartment 286  
 T27N, R01W, Sec. 11, 12, 13, 24  
 County: Crawford  
 Unit: Grayling  
 YOE: 2010  
 Acres: 1,401 GIS Calculated  
 Stand Examiner: Patrick Cotant  
 Map Revised: 8/05/2008  
 Map Phase: Pre-review

# Cover Type and Treatment



### Legend

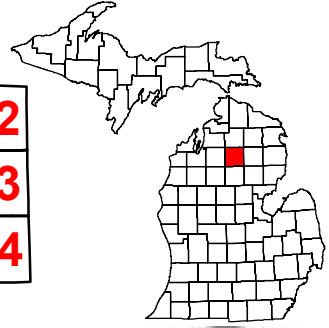
- ◆ RIs Corners
- Miris Corners
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Powerlines
- Trails
- Water Features
- Snowmobile Trails
- Stand Boundary
- 016 - Planting
- 400 - Thinning
- A - Aspen
- G - Grass
- J - Jack Pine
- N - Marsh
- O - Oak
- P - Balsam Poplar, Swamp Aspen, Swamp White Birch
- Q - Mixed Swamp Conifers
- R - Red Pine
- U - Upland Brush
- X - Non-Stocked



84°24'0"W 84°23'0"W 84°22'0"W



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# Stand Boundary Map













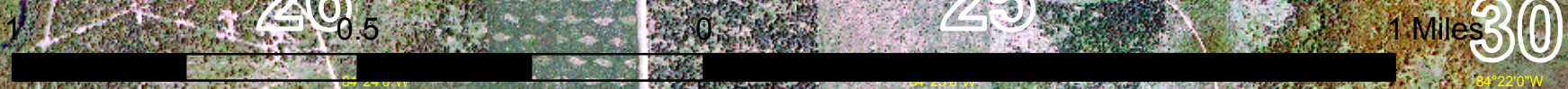
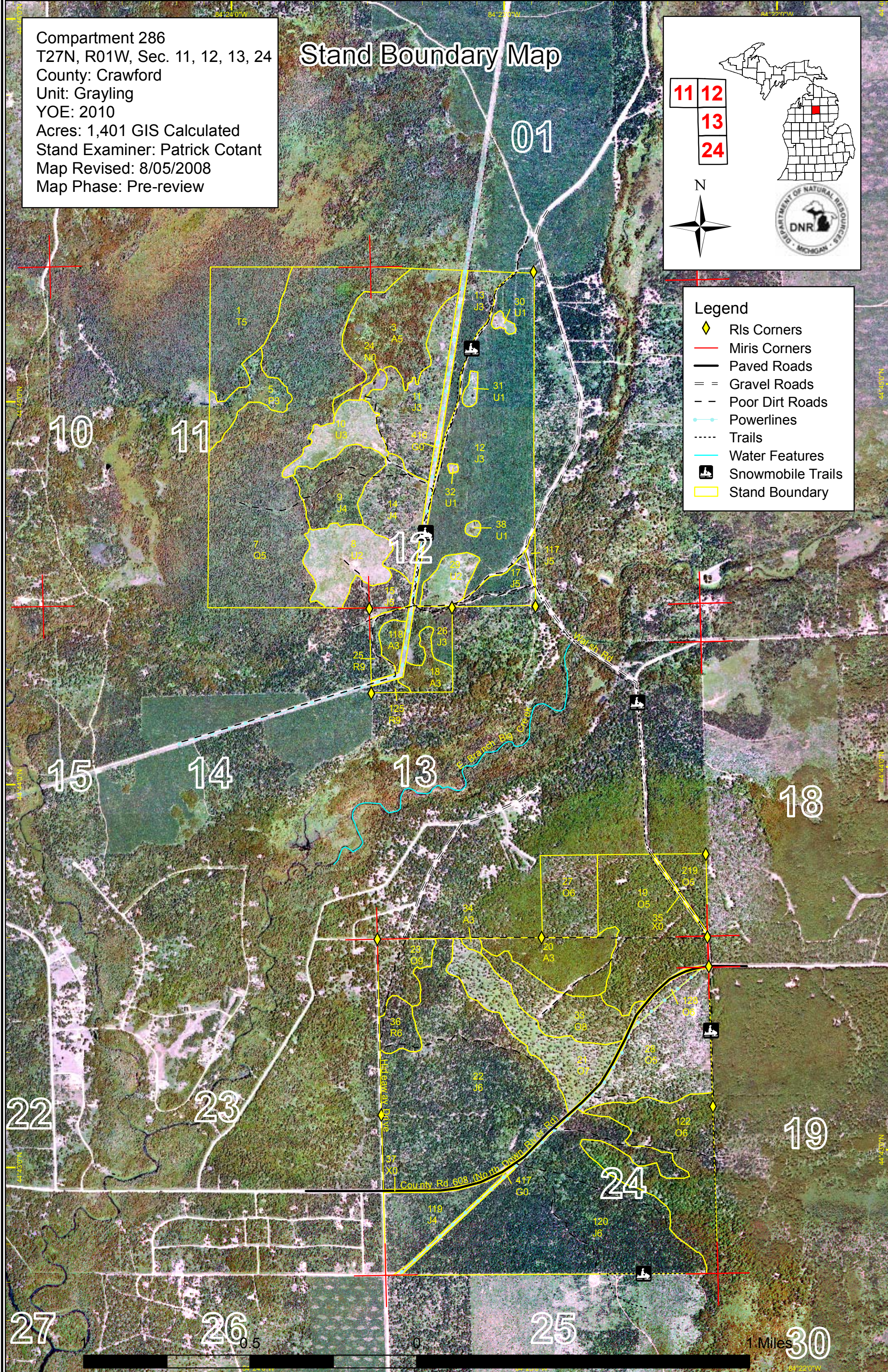
11	12
	13
	24

N

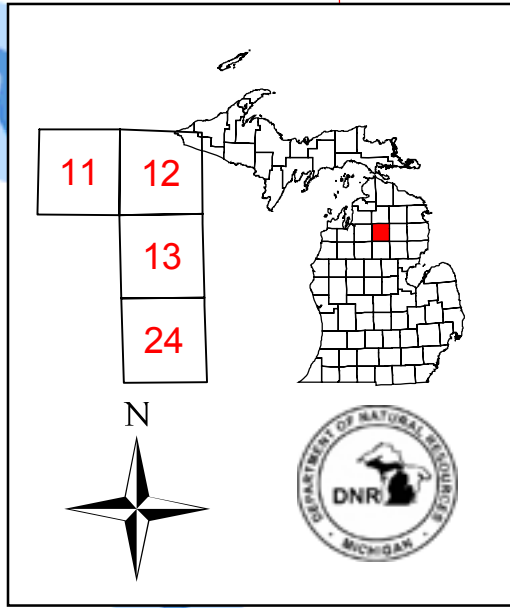
### Legend

-  Rls Corners
-  Miris Corners
-  Paved Roads
-  Gravel Roads
-  Poor Dirt Roads
-  Powerlines
-  Trails
-  Water Features
-  Snowmobile Trails
-  Stand Boundary

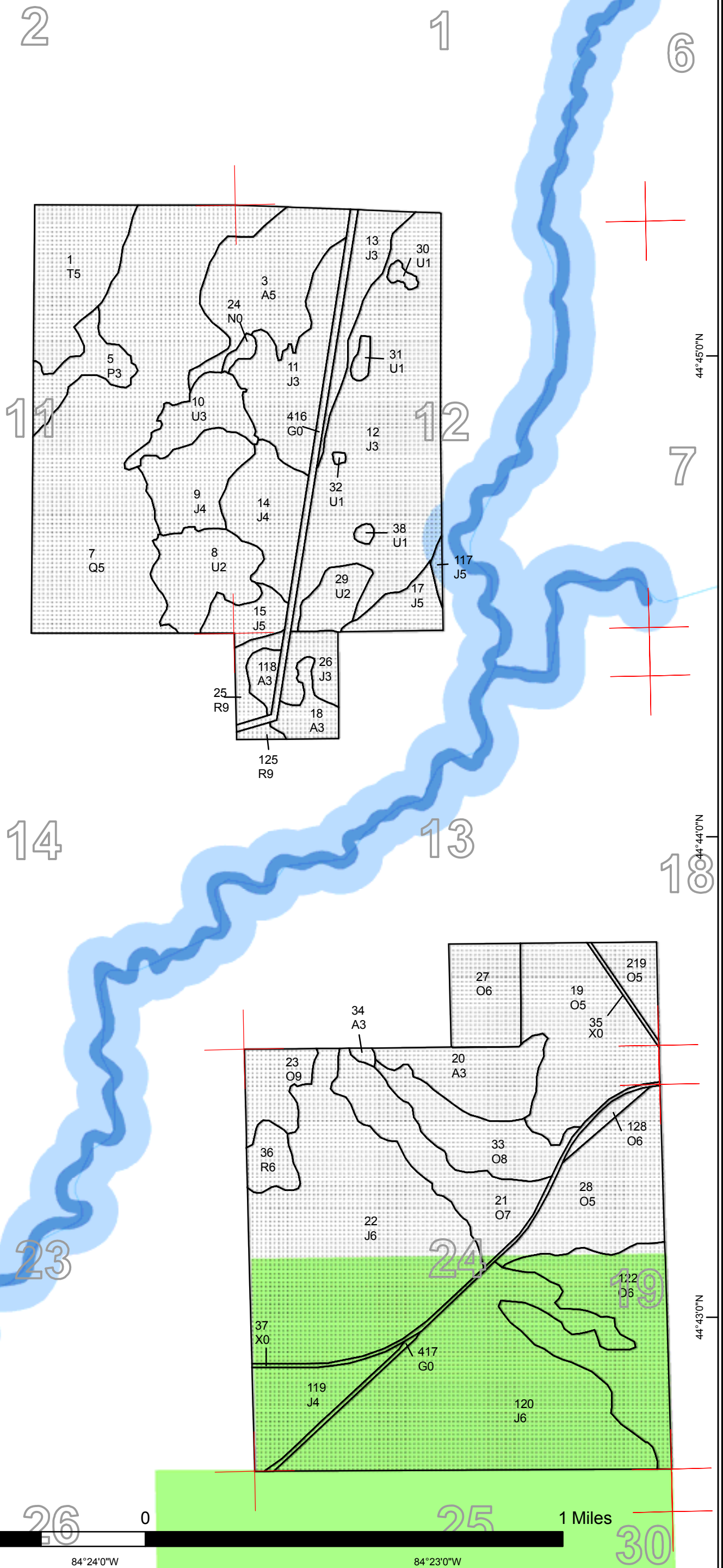


# Dedicated & Proposed Special Conservation Area Map

Compartment 286  
 T27N, R01W, Sec. 11, 12, 13, 24  
 County: Crawford  
 Unit: Grayling  
 YOE: 2010  
 Acres: 1,401 GIS Calculated  
 Stand Examiner: Patrick Cotant  
 Map Revised: 9/11/2008  
 Map Phase: Pre-review



- Legend**
- Miris Corners
  - Stand Boundary
  - Proposed SCA
- Dedicated SCA**
- Cold Water Streams
  - Natural Rivers Vegetative Buffer
  - Natural Rivers Zoning District
  - 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.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.
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.