



## GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 229 ENTRY YEAR: 2010

GIS Compartment Acreage: 1,076 County: Crawford

---

**Revision Date:** 9/12/2008

**Stand Examiner:** Lucas Merrick

**Legal Description:** Beaver Creek Township T25N, R03W, Sections 22, 23, and 24

**Management Goals:** To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management.

**Soils and Topography:** Topography is flat with rolling hills. Soil types consist primarily of Grayling and Graycalm sands; these soils are somewhat excessively to excessively drained.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** This compartment is a mix of state and private ownership. Lakehead pipeline runs N/S through the west half of section 24. An active railroad runs N/S through section 23. This area is about 1 mile east of I-75.

**Unique, Natural Features:** There is potential for dry prairie plants in grassy openings: Hill's thistle, rough fescue, Alleghany plum, and pale agoseris. There is potential for several animals of concern in this compartment: Kirtland's warbler, prairie warbler, goshawk, red-shouldered hawk, Massasauga rattle snake, secretive locust, dusted skipper, grizzled skipper, and the red-legged spittle bug.

**Archeological, Historical, and Cultural Features:** None known at this time.

**Special Management Designations or Considerations:** None at this time.

**Watershed and Fisheries Considerations:** Several intermittent streams and drainages plus a portion of Mud Lake are found in this compartment.

**Wildlife Habitat Considerations:** There are two maintained wildlife openings in section 22. The mixed conifer swamp areas provide thermal cover for deer. Try to expand the aspen component where possible. During timber harvesting make efforts to improve snag habitat and down woody debris. Also, try to leave some high stumps for feeding perches and drumming.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Michigan Formation. The Michigan is quarried for gypsum elsewhere in the State. A gravel pit is located in Section 23 and potential is good on the uplands. The Compartment was recently leased for oil and gas development.

**Vehicle Access:** Access throughout the compartment is excellent by way of county roads.

**Survey Needs:** None at this time.

**Recreational Facilities and Opportunities:** Dispersed recreation occurs throughout the area. Part of snowmobile trail #489 and associated trail head are located in section 24. A portion of the Beaver Creek ORV trail also meanders through the northeast portion of the compartment.

**Fire Protection:** Extreme fire behavior potential is low. There are several man made features that serve as excellent fuel breaks. Equipment operations would be limited in section 23.

**LOTS Compartment Acreage:** 1067

- **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**

9/15/2008 9:58:41 AM

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

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

CRAWFORD COUNTY

COMPARTMENT: 229

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			173	76	28	13			4		23								317
Black Spruce			20																20
Cedar													199						199
Grass	20																		20
Jack Pine				39		41		163											243
Local Name									6										6
Lowlnd Brush	9																		9
Mx Swmp Cnfr								38											38
Non Stocked	1																		1
Oak						39			42		41								122
Upland Brush	39					7													46
White Pine						33						22							55
<b>Total</b>	<b>69</b>		<b>193</b>	<b>115</b>	<b>35</b>	<b>126</b>		<b>201</b>	<b>52</b>		<b>64</b>	<b>22</b>	<b>199</b>						<b>1076</b>

9/15/2008 9:58:45 AM

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

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

CRAWFORD COUNTY

COMPARTMENT: 229

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	317																										317
S Black Spruce		20																									20
C Cedar				199																							199
G Grass					20																						20
J Jack Pine							243																				243
I Local Name																								6			6
L LowInd Brush									9																		9
Q Mx Swmp Cnfr												38															38
X Non Stocked													1														1
O Oak														122													122
U Upland Brush																								46			46
W White Pine																									55	55	
Total	317	20		199	20		243		9			38	1	122										52		55	1076

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

CRAWFORD COUNTY

COMPARTMENT: **229**

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

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	2609 Cds	Hardwood	809 Cds
Hardwood	171 Mbf	Hardwood	84 Mbf
Softwood	5247 Cds	Softwood	446 Cds
Softwood	673 Mbf	Softwood	93 Mbf
Sum TotVol	9544 Cds	Sum CutVol	1609 Cds
<b>Total Cmpnt Acres</b>		Acres Proposed For Cut.....	
1076		99	

**GRAYLING FOREST MGT UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 229 Entry Year: 2010**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
<b>4</b>	<b>A6</b>	13	46	60	aspen (upland)	immature	final harvest	2	natural regeneration	
<p>comnts Fmd : If we want to manage for aspen- recommend a final harvest-all trees 2" and up. Leave a buffer along road for retention. Aspen is a product of a salvage cut in the early 60's and is found in pockets. The bigger white/red pine trees found in this area are in the 100yr range. There are a couple areas of heavy/dense white pine regen. Some scattered oak and maple. The management objective for this stand is aspen but, will accept a moderate to fully stocked mixed stand consisting of aspen, maple, oak, and mixed pine. If natural regen fails, plant this stand to red pine.</p>										
<b>8</b>	<b>J6</b>	38	58	45	jack pine	immature	final harvest	1	natural regeneration	
<p>comnts Fmd : Most of the aspen found in southern portion of stand. A minor component of oak. Recommend a final harvest w/ reserves. Leave a couple islands to help influence aesthetics. Would like try and obtain natural regeneration. Require trees to be de-limbed in sale area or else leave tops. Prescribe burn area after sale to reduce slash and promote jack pine regen. Try to avoid burning aspen pockets where possible (specifically along southern edge). Try to extend stand towards the south along the RR tracks creating an edge along the q-type (extend all the way to stand 15 if possible). Management objective for this stand is jack pine but will accept a moderate to fully stocked stand consisting of jack pine, aspen, oak, maple, red pine, and white pine. If natural regen fails manage as a u-type.</p>										
<b>29</b>	<b>O6</b>	42	71	55	oak	immature	final harvest	1	planting	
<p>comnts Fmd : Some rolling hills. A cycle trail runs through this stand. Heavy browse and other deer activity. Some scattered advanced rp and wp regen present(leave, do not damage during sale). A very poor looking stand in severe decline. Dead snags and tree tops throughout. Extensive illegal fuel wood cutting is occurring along the cycle trail. Final harvest w/ reserves- Use leave islands to protect the cycle trail and to help with aesthetics. Try to obtain some oak stump sprout regeneration. After sale is complete, trench and plant mixed pine around natural regen. Management objective is oak but will accept any moderate to fully stocked stand containing an oak component.</p>										
<b>31</b>	<b>I6</b>	6	68	45	upland brush	mature	final harvest	1		
<p>comnts Fmd : Strip of scotch and jack pine. Fairly decent oak and white pine regen. Final harvest with no reserves. Do not replant. Any natural regeneration including upland brush is acceptable.</p>										
<b>400</b>	<b>G0</b>	8			grass	nonstocked		0	opening maintenance	
<p>comnts Fmd : A maintained wildlife opening. Scotch and jack pine starting to expand along the edges. Should try to pick up these brushy edges while cutting stand 31. Also burn with surrounding stands after harvest is complete.</p>										
<b>401</b>	<b>G0</b>	12			grass	nonstocked		0	opening maintenance	
<p>comnts Fmd : A maintained wildlife opening. Scotch and jack pine starting to expand along the edges. Should try to pick up these brushy edges while cutting stand 6. Center of stand is developing into a u-type. Burn with surrounding stands when harvest is complete.</p>										
<b>Total Acres.....</b>		<b>119</b>								

**Proposed Treatments  
With Limiting Factors**

**Compartment: 229**

**Entry Year: 2010**

---

<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>
--------------	-----------------------	--------------	------------	-----------------------	--------------------	------------------	-----------------------	-----------------------------	--------------------------	----------------------

---

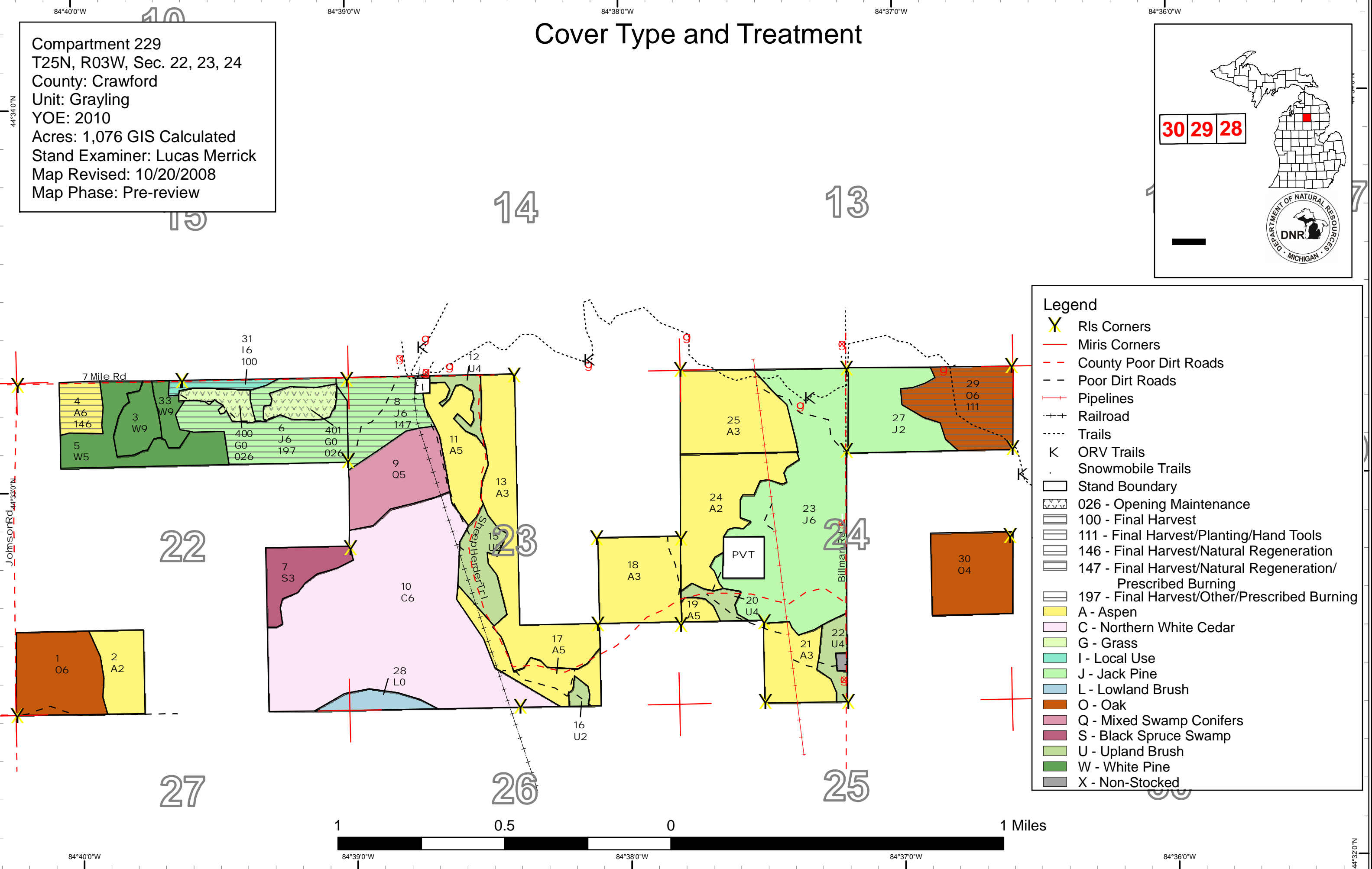
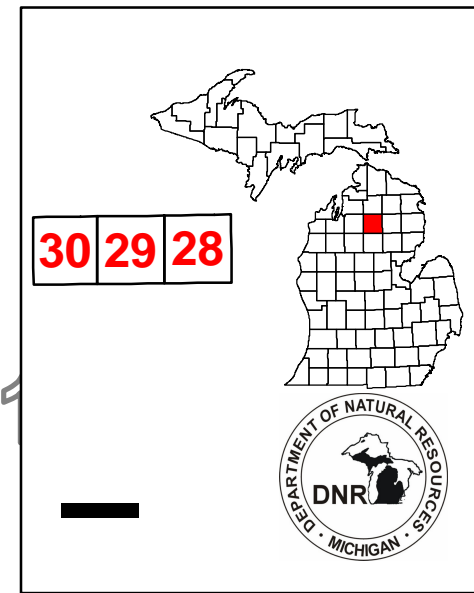
TREATMENT LIMITING FACTORS:

---

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

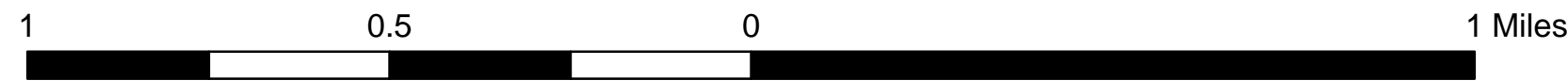
# Cover Type and Treatment

Compartment 229  
 T25N, R03W, Sec. 22, 23, 24  
 County: Crawford  
 Unit: Grayling  
 YOE: 2010  
 Acres: 1,076 GIS Calculated  
 Stand Examiner: Lucas Merrick  
 Map Revised: 10/20/2008  
 Map Phase: Pre-review



### Legend

- X RIs Corners
- Miris Corners
- - - County Poor Dirt Roads
- - - Poor Dirt Roads
- + Pipelines
- + + + Railroad
- - - Trails
- K ORV Trails
- . Snowmobile Trails
- Stand Boundary
- 026 - Opening Maintenance
- 100 - Final Harvest
- 111 - Final Harvest/Planting/Hand Tools
- 146 - Final Harvest/Natural Regeneration
- 147 - Final Harvest/Natural Regeneration/Prescribed Burning
- 197 - Final Harvest/Other/Prescribed Burning
- A - Aspen
- C - Northern White Cedar
- G - Grass
- I - Local Use
- J - Jack Pine
- L - Lowland Brush
- O - Oak
- Q - Mixed Swamp Conifers
- S - Black Spruce Swamp
- U - Upland Brush
- W - White Pine
- X - Non-Stocked



84°40'0"W 84°39'0"W 84°38'0"W 84°37'0"W 84°36'0"W

Compartment 229  
T25N, R03W, Sec. 22, 23, 24  
County: Crawford  
Unit: Grayling  
YOE: 2010  
Acres: 1,076 GIS Calculated  
Stand Examiner: Lucas Merrick  
Map Revised: 8/28/2008  
Map Phase: Pre-review

# Stand Boundary Map

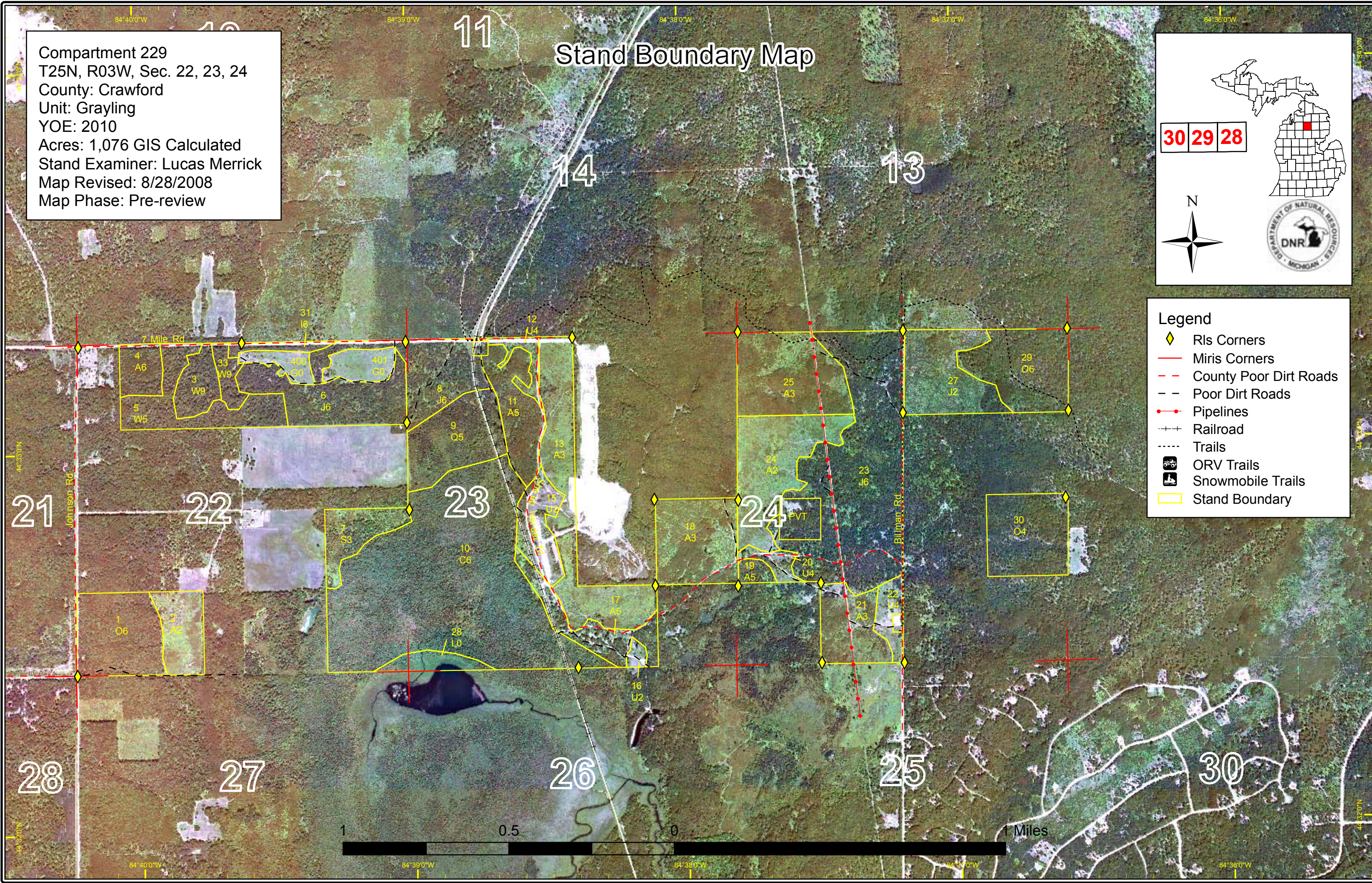
30 29 28

N

DEPARTMENT OF NATURAL RESOURCES  
DNR  
MICHIGAN

**Legend**

- ◆ RIs Corners
- Miris Corners
- - County Poor Dirt Roads
- - Poor Dirt Roads
- Pipelines
- ++ Railroad
- ..... Trails
- ORV Trails
- Snowmobile Trails
- Stand Boundary

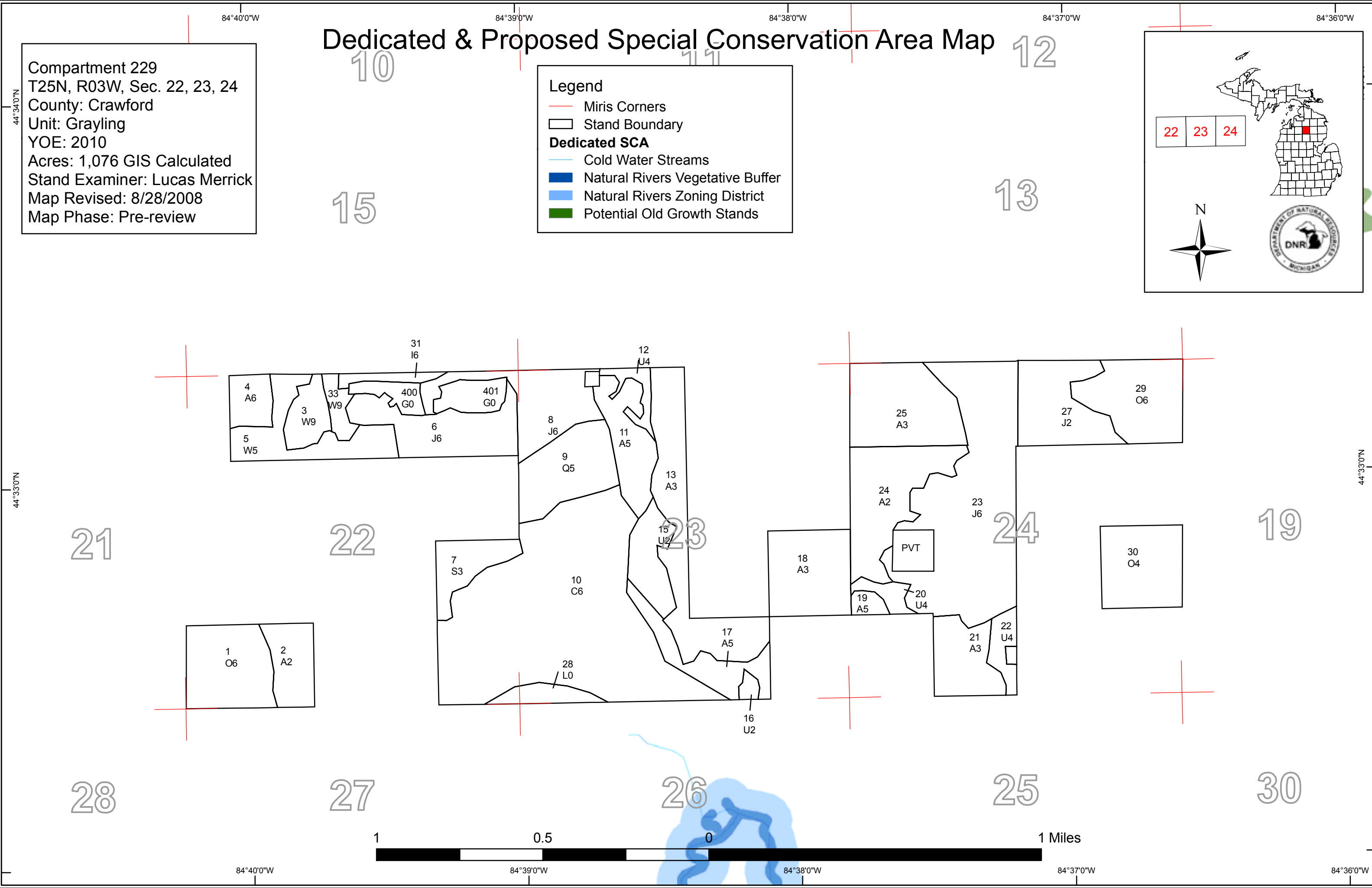
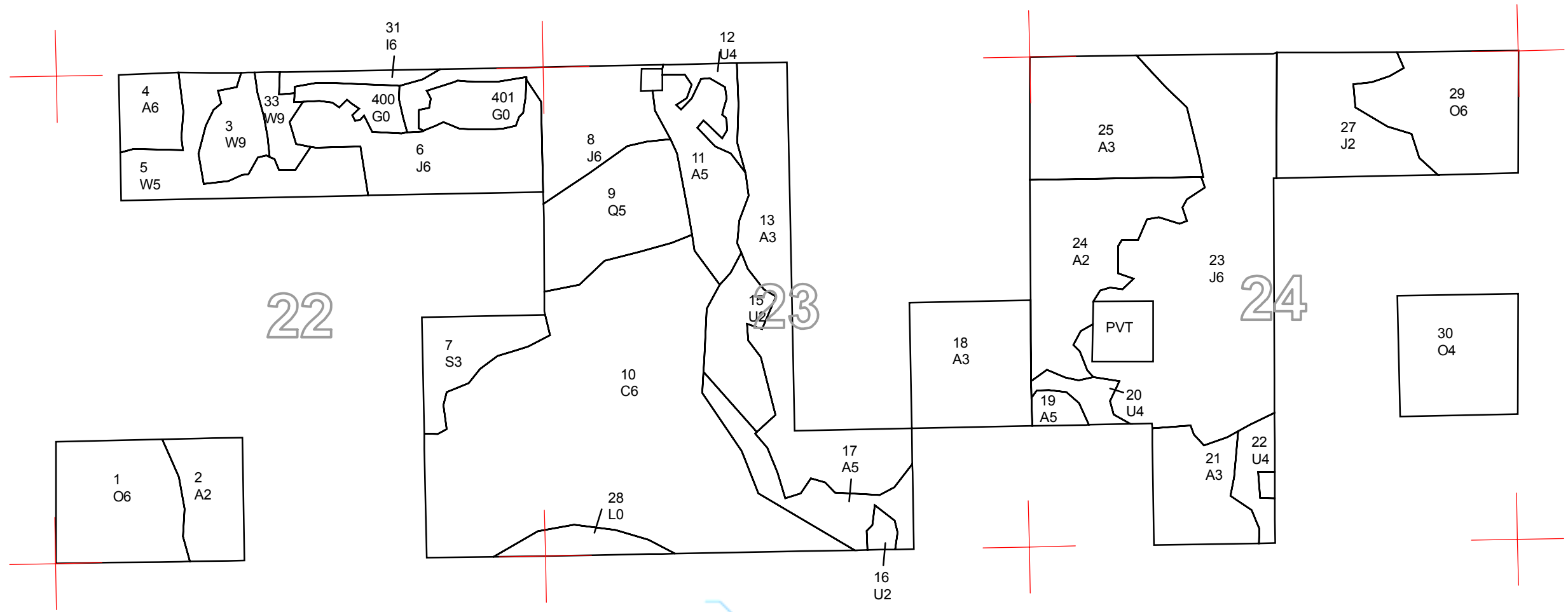


# Dedicated & Proposed Special Conservation Area Map

Compartment 229  
 T25N, R03W, Sec. 22, 23, 24  
 County: Crawford  
 Unit: Grayling  
 YOE: 2010  
 Acres: 1,076 GIS Calculated  
 Stand Examiner: Lucas Merrick  
 Map Revised: 8/28/2008  
 Map Phase: Pre-review

**Legend**

- Miris Corners
- Stand Boundary
- Dedicated SCA**
- Cold Water Streams
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Potential Old Growth Stands





**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	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	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.
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.