



## GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

**COMPARTMENT # 9 ENTRY YEAR: 2010**

**GIS Compartment Acreage: 2746 County: Oscoda**

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

**Stand Examiner:** Lucas Merrick

**Legal Description:** (Greenwood Township) T27N, R01E, Sections 1, 2, and the north ½ of 12  
(Elmer Township) T27N, R02E, Sections 6, 7, & 18

**Management Goals:** To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management. 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:** Terrain is level to slightly rolling. Soils consist of primarily Grayling sand. This soil is excessively drained with a low water-holding capacity.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** This compartment is comprised of primarily State owned lands with some private parcels scattered throughout. This is a consistent ownership pattern for northwest Oscoda County. A 5 chain wide Consumer's Power owned right-of-way bisects the compartment.

**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, 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:** Compartment 9 is the Muskrat Lake Kirtland's Warbler Management Area. These areas are designated High Conservation Value Areas (HCVA). All HCVA stands are coded as stand condition 8.

**Watershed and Fisheries Considerations:** Muskrat Lake and the head waters to Wright Creek are found within the compartment. There are no intrusive activities scheduled to occur within the riparian management zones of either area.

**Wildlife Habitat Considerations:** Kirtland's warbler and prairie warbler could occur in the young jack pine. Along the lakes and streams there may be eagles, osprey, and great blue heron rookeries. There is potential for dusted skipper, grizzled skipper, and red-legged spittle bug to occur in grassy openings. Secretive locust may occur in bog habitat and surrounding uplands. Blanding's turtle, wood turtle, and massasauga rattle snake have potential to be found along the water ways.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of ice-contact outwash sand and gravel. The glacial drift thickness varies between 400 and 600 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 in Section 15 and potential is good on the uplands. The eastern half of the compartment is leased for oil and gas development.

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

**Survey Needs:** None at this time. Note that only a portion of the Consumer's Power easement has been cleared. The proper boundary line will have to be established prior to any activities being carried out adjacent to it.

**Recreational Facilities and Opportunities:** Dispersed recreation occurs throughout. Muskrat Lake State Forest Campground, snowmobile trail #'s 4 and 9, and an ORV trail are present within the compartment.

**Fire Protection:** There is potential for extreme fire behavior due to fuel types. Stand 42 is a designated fuel break. The power line also serves as a potential fuel break.

**LOTS Compartment Acreage:** 2755 acres

➤ **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**



9/16/2008 8:15:35 AM

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

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

OSCODA COUNTY

COMPARTMENT: 9

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	39																										39
G Grass					2																						2
J Jack Pine							1752																				1752
I Local Name								14																			14
L Lowlnd Brush									2																		2
N Marsh											60																60
Q Mx Swmp Cnfr												79															79
O Oak							19						152														171
R Red Pine							319								235												554
U Upland Brush																							27				27
W White Pine																									46	46	
<b>Total</b>	39				2		2090	14	2		60	79		152	235								27			46	2746

AUSABLE STATE FOREST

GRAYLING FOREST MGT UNIT

OSCODA COUNTY

COMPARTMENT: 9

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

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	2363 Cds	Hardwood	1257 Cds
Hardwood	526 Mbf	Hardwood	185 Mbf
Softwood	11504 Cds	Softwood	5620 Cds
Softwood	5116 Mbf	Softwood	3472 Mbf
Sum TotVol	25151 Cds	Sum CutVol	14191 Cds
<b>Total Cmpt Acres</b>		Acres Proposed For Cut.....	
2746		775	

**GRAYLING FOREST MGT UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 9**

**Entry Year: 2010**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status	
2	J4	46	25	50	jack pine	old growth (potential or actual)	final harvest	1	planting		
<p>comnts Fmd : Hold and wait for warbler management, stand scheduled for planting in 2018. Bigger timber is found in the western and southern part of stand. NE part of stand is more of a J1/J2 type. There are scattered aspen clones and oak stump sprouts throughout. Looks like some red pine may have been left in 1982? Old notes indicate that there are issues w/ trying to block the abandoned trail found within the stand. This is part of the Muskrat Lake Warbler Management Area a HCVA</p>											
3	R8	62	77	49	jack pine	old growth (potential or actual)	final harvest	1	planting		
<p>comnts Fmd : Hold and wait for warbler management, stand scheduled for planting in 2018. Stand thinned last YOE Sale# 720010101 (Townline 608 Red Pine). Red pine was planted in 1930. Good oak regeneration throughout stand especially where the canopy is open. Some bark beetle in stand. Hold this stand as a visual buffer for KW Management. This is part of the Muskrat Lake Warbler Management Area a HCVA</p>											
19	O6	35	99	43	oak	old growth (potential or actual)	final harvest	2			
<p>comnts Fmd : A nice mixed stand. Would like to try and maintain the diversity. Final harvest w/ reserves. Leave 10% of the stand in islands for retention. Also mark some scattered red pine to leave throughout the sale area. The management objective for this stand is oak but any mixture of species currently present at medium to full stocking is acceptable. If natural regeneration in not adequate, the open areas should be planted to jack pine. This is part of the Muskrat Lake Warbler Management Area a HCVA.</p>											
22	R9	88	77	50	jack pine	old growth (potential or actual)	final harvest	1	planting		
<p>comnts Fmd : Per warbler plan - final harvest w/ reseves. Pockets of very nice red pine. Hdwds are coming up in the understory but are getting browsed hard. Looooks like small portions of the stand have had small removal type cuttings in the past. This is part of the Muskrat Lake Warbler Management Area a HCVA.</p>											
39	J6	14	50	47	jack pine	old growth (potential or actual)	final harvest	2			
<p>comnts Fmd : Mature jack pine w/ pockets of smaller trees. Two age classes present 70ish and 40ish. Aspen clones found in stand. Final harvest w/out reserves. Try to achieve natural regen- this may be an excellent stand to manage as a barron area. Management objective is jack pine. Minimal stocking is acceptable. If stand does not properly regenerate, plant to jack pine. This is part of the Muskrat Lake Warbler Management Area a HCVA.</p>											
53	R9	13	77	48	jack pine	old growth (potential or actual)	final harvest	1	planting		
<p>comnts Fmd : Per warbler plan- Final harvest w/ reserves. South part of stand has jack pine mixed with red pine, north part has aspen pockets. Looks like a possible previous prescription was cut everything but red pine? Some white pine found in stand also. This is part of the Muskrat Lake Warbler Management Area a HCVA.</p>											
54	J6	20	58	50	jack pine	old growth (potential or actual)	final harvest	1	planting		
<p>comnts Fmd : Per warbler plan- Final harvest w/ reserves. Older jack pine starting to die- several dead trees through out stand. Sirex wasp trap trees located in stand. Trap trees were treated w/ a herbicide. Stand is wet west of road. Spruce, white pine, and red pine present. This is part of the Muskrat Lake Warbler Management Area a HCVA.</p>											
56	J6	149	75	45	jack pine	old growth (potential or actual)	final harvest	1	planting		
<p>comnts Fmd : Rolling to hilly topo. Stand varies in quality. Areas of decline. Some oak and red pine starting to establish in the under story. This is part of the Muskrat Lake Warbler Management Area a HCVA.</p>											
<b>Total Acres.....</b>		<b>427</b>									

**GRAYLING FOREST MGT UNIT**

**Proposed Treatments  
With Limiting Factors**

**Compartment: 9**

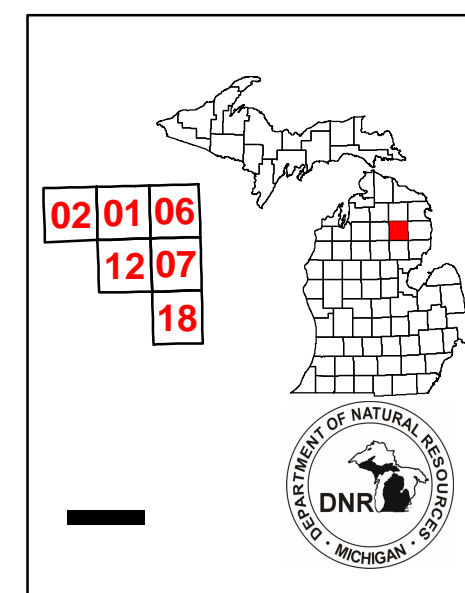
**Entry Year: 2010**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
1	O9	19	88	46	jack pine	old growth (potential or actual)	final harvest	1	planting	
TREATMENT LIMITING FACTORS: Other special wildlife habitat consideration (desc. In comments)										
comnts Fmd : Hold and wait for warbler management, stand scheduled for planting in 2018. This stand is mature - over mature, some mixed pine and misc. hardwoods are starting to establish themselves in the under story. The NW corner of this stand is a J6 type. If it is decided that an oak component is to be maintained, it would be prudent to remove the oak this year of entry and try to establish regeneration through root sprouts. Pine could be left, may want to mark selectively to enhance regeneration of oak (regen gaps). Stand has had some improvement cutting in the past resulting in areas of two age classes represented in the stand. This is part of the Muskrat Lake Warbler Management Area a HCVA										
4	A6	10	49	55	aspen (upland)	old growth (potential or actual)	final harvest	2		
TREATMENT LIMITING FACTORS: Other special wildlife habitat consideration (desc. In comments)										
comnts Fmd : Hold and wait for warbler management, surrounding stands scheduled for planting in 2018. I separated this aspen clone from stand 1. Low area found in stand-watch out for it when setting up sale. The aspen varies in size and quality but it should fully regenerate w/out a problem. If natural regeneration fails, plant failed areas to jack pine when compartment is entered for warbler management. This is part of the Muskrat Lake Warbler Management Area a HCVA.										
5	R9	64	75	49	jack pine	old growth (potential or actual)	final harvest	1	planting	
TREATMENT LIMITING FACTORS: Other special wildlife habitat consideration (desc. In comments)										
comnts Fmd : Hold and wait for warbler management, stand scheduled for planting in 2018. Some browse in understary. Thinned in winter 2005 by G&G Forest Products #72-040-04-01 Dancing Red Pine. (RESIDUAL BA 80). This is part of the Muskrat Lake Warbler Management Area a HCVA.										
6	J6	74	79	45	jack pine	old growth (potential or actual)	final harvest	1	planting	
TREATMENT LIMITING FACTORS: Other special wildlife habitat consideration (desc. In comments)										
comnts Fmd : Hold and wait for warbler management, stand scheduled for planting in 2018. Rolling topo. Small diameter/height and relatively old. A patchy stand, a few areas w/ good jp. Other areas more open w/ a pine barren feel. Did not find the red pine from previous survey. This is part of the Muskrat Lake Warbler Management Area a HCVA.										
28	R9	92	77	53	jack pine	old growth (potential or actual)	final harvest	1		
TREATMENT LIMITING FACTORS: Other special wildlife habitat consideration (desc. In comments)										
comnts Fmd : Hold and wait for warbler management, stand scheduled for planting in 2018. Variable stand. Some areas of real good quality red pine. Rolling topo. Some areas of excellent advanced oak regen. Used to be the same stand w/ 3, it has not been treated.										
44	J6	89	58	45	jack pine	old growth (potential or actual)	final harvest	1	planting	
TREATMENT LIMITING FACTORS: Other special wildlife habitat consideration (desc. In comments)										
comnts Fmd : Hold and wait for warbler management, stand scheduled for planting in 2018. Some blow down. Hodge podge of a stand This is part of the Muskrat Lake Warbler Management Area a HCVA.										

**Total Acres..... 348**

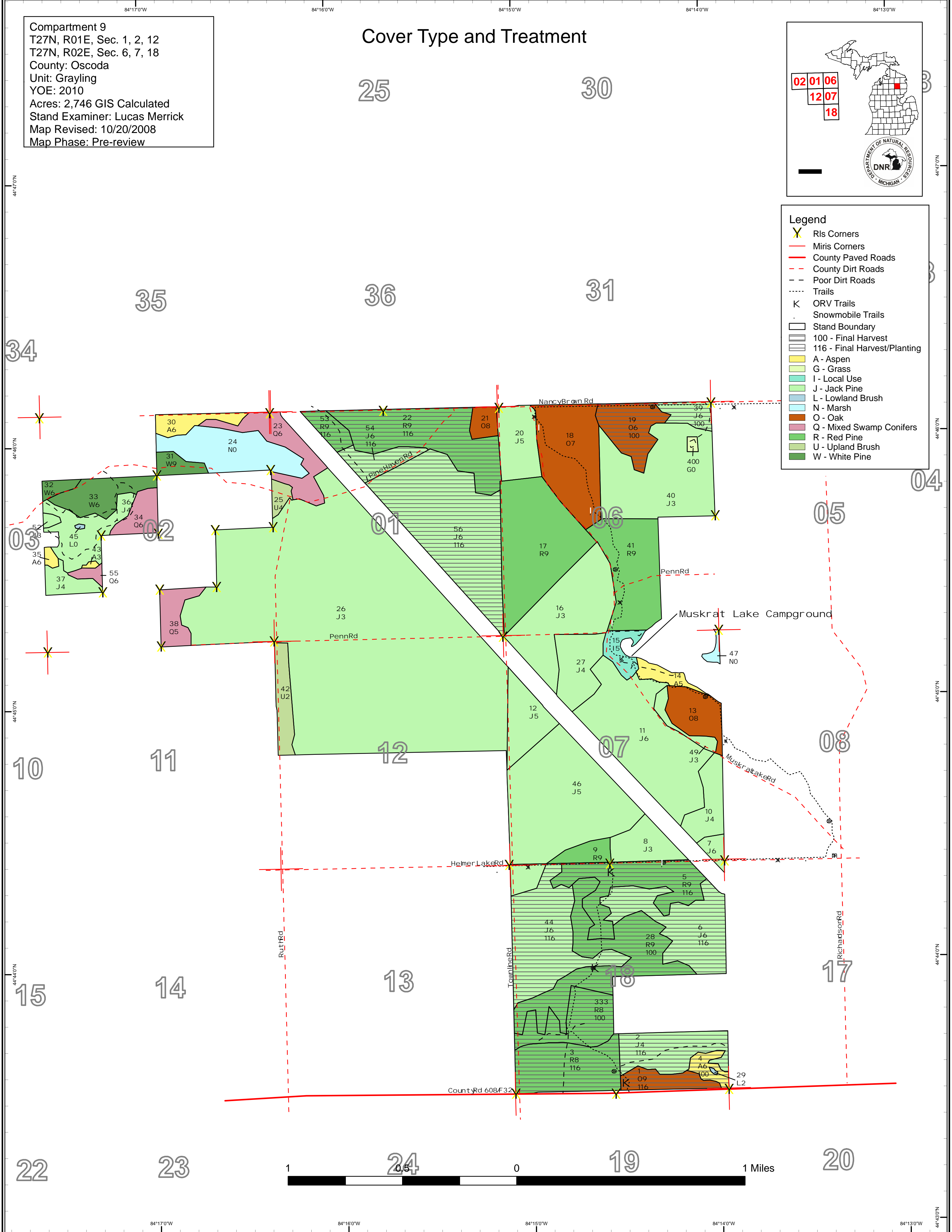
Compartment 9  
 T27N, R01E, Sec. 1, 2, 12  
 T27N, R02E, Sec. 6, 7, 18  
 County: Oscoda  
 Unit: Grayling  
 YOE: 2010  
 Acres: 2,746 GIS Calculated  
 Stand Examiner: Lucas Merrick  
 Map Revised: 10/20/2008  
 Map Phase: Pre-review

# Cover Type and Treatment



**Legend**

- X Rls Corners
- Miris Corners
- County Paved Roads
- - - County Dirt Roads
- - - Poor Dirt Roads
- ..... Trails
- K ORV Trails
- ..... Snowmobile Trails
- Stand Boundary
- ▨ 100 - Final Harvest
- ▤ 116 - Final Harvest/Planting
- A - Aspen
- G - Grass
- I - Local Use
- J - Jack Pine
- L - Lowland Brush
- N - Marsh
- O - Oak
- Q - Mixed Swamp Conifers
- R - Red Pine
- U - Upland Brush
- W - White Pine



Compartment 9  
 T27N, R01E, Sec. 1, 2, 12  
 T27N, R02E, Sec. 6, 7, 18  
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 Unit: Grayling  
 YOE: 2010  
 Acres: 2,746 GIS Calculated  
 Stand Examiner: Lucas Merrick  
 Map Revised: 8/28/2008  
 Map Phase: Pre-review

# Stand Boundary Map

02 01 06  
 12 07  
 18

N

### Legend

- RIs Corners
- Miris Corners
- County Paved Roads
- County Dirt Roads
- Poor Dirt Roads
- Trails
- ORV Trails
- Snowmobile Trails
- Stand Boundary
- 100 - Final Harvest
- A - Aspen
- G - Grass
- I - Local Use
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- O - Oak
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# Dedicated & Proposed Special Conservation Area Map

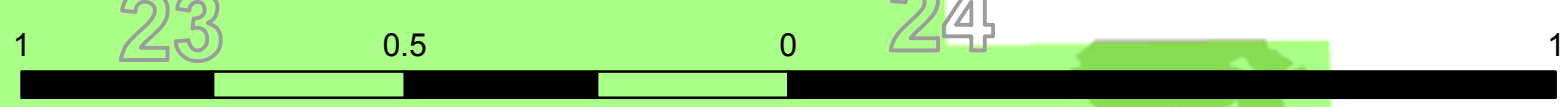
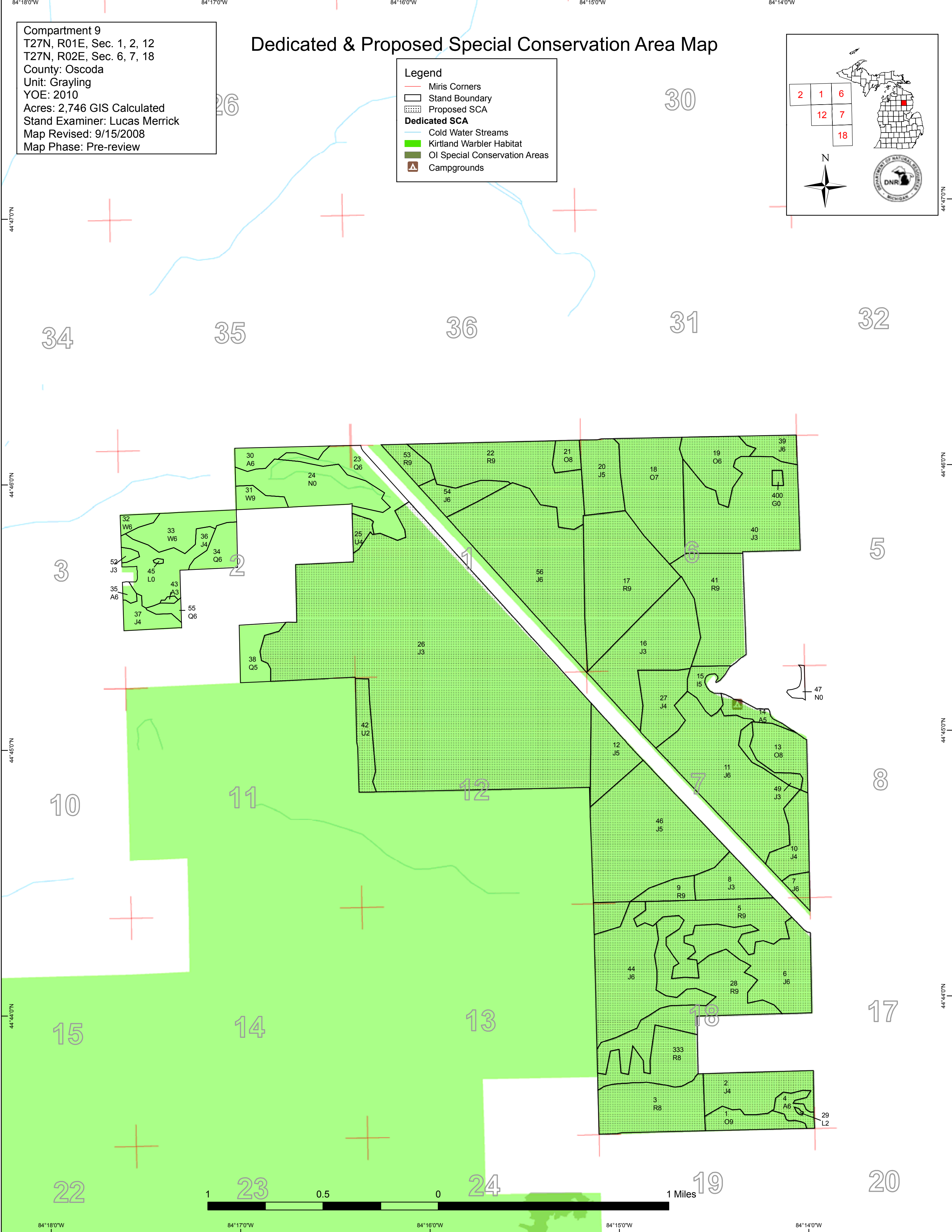
**Legend**

- Miris Corners
- Stand Boundary
- Proposed SCA
- Dedicated SCA**
- Cold Water Streams
- Kirtland Warbler Habitat
- OI Special Conservation Areas
- Campgrounds

2 1 6  
12 7  
18

N

DEPARTMENT OF NATURAL RESOURCES  
DNR  
MICHIGAN





## 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.
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.
SCA	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites.