



**GAYLORD FOREST MANAGEMENT UNIT  
COMPARTMENT REVIEW PRESENTATION**

**COMPARTMENT: 14**

**ENTRY YEAR: 2009**  
**Compartment Acreage: 2,603**  
**County: OTSEGO**

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**Revision Date:** 4/13/2007

**Stand Examiner:** Kimberly Lentz

**Legal Description:** T29N R2W Sec. 16, 17, 18, 19, 20, & 21

**Management Goals:** To provide for the protection, integrated management and responsible use of a healthy, productive and undiminished forest resource base for the social, recreational, environmental and economic benefit of the State of Michigan.

**Soil and Topography:** The major soils are Rifle Peat – Carbondale Muck, Roselawn-Rubicon Sand, and Grayling Sand.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** This compartment and surrounding area has undergone extensive antrim gas development. There are 29 wells, 1 facility and approximately 12 miles of pipeline and associated roads in the compartment. Hunting and fishing are the general land uses. Some of the stands south of the North Branch of the Ausable River are being used quite extensively by the National Guard for training exercises in this compartment.

**Unique, Natural Features:** The North Branch of the Ausable River is a designated natural river, and its tributaries Chub Creek and Turtle Creek are part of this river system. The stands adjacent to the river and creeks have been nominated for a High Conservation Value Area which includes a strip that is 400' on either side of these waterways.

**Archeological, Historical, and Cultural Features:**

**Special Management Designations or Considerations:**

**Watershed and Fisheries Considerations:** This compartment is in the Au Sable River watershed, and contains portions of Turtle Creek, North Branch Au Sable River, and Chub Creek. The proposed prescriptions for this compartment are fine, and promote wildlife species diversity.

**Wildlife Habitat Considerations:** This compartment contains both upland and lowland areas and it receives a considerable amount of hunting pressure. The lowland swamp area has received numerous habitat cuts in the past and cedar regeneration can be seen in stands 28 and 95. Stand 128 will have a non-commercial treatment prescribed to regenerate cedar and for snowshoe hare habitat. The north branch of the Au Sable runs through this lowland area and its corridor is used by eagles, otter, beaver and ducks. The large U type in the NE corner of this compartment is used heavily by woodcock, grouse, deer and open land songbirds. This area should be maintained with fire. All aspen treatments in this compartment will maintain the early successional habitat, and oak will be left in them for mast production. The oak in the NW corner of this compartment will be treated to regenerate it.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and minor ice-contact outwash sand and gravel. The glacial drift thickness varies between 600 and 800 feet. The Mississippian Coldwater Shale subcrops below the glacial drift. The Coldwater does not have an economic use. The nearest gravel pit is located five miles to the southwest, but there is good potential on the uplands. The compartment has been developed for Antrim Shale gas production and is also located in the Niagaran reef trend. All State lands are leased.

**Vehicle Access:** Access is good throughout the compartment. There are no road closures recommended at this time.

**Survey Needs:** The proposed treatments require very little survey work.

**Recreational Facilities and Opportunities:** The North Branch Snowmobile Trail and ORV Route runs concurrent in the NE corner of Section 16.

**Fire Protection:** A prescribed burn is scheduled for spring of 2007 in section 16.

**Additional Compartment Information:**

- **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

MACKINAW STATE FOREST

GAYLORD FOREST MGT UNIT

OTSEGO COUNTY

COMPARTMENT: 14

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			1	36	216	353	20	19	35										680
Black Spruce						5													5
Grass	56																		56
Hemlock												6							6
Jack Pine							29												29
LowInd Brush											84								84
Marsh	127																		127
Mx Swmp Cnfr		3	9	2			115		43	10	261								443
Non Stocked	5																		5
Oak		28						95	18	43								76	260
Red Pine						46	76	83											205
Spruce Fir			18																18
Swamp Hrdwds		17		6				6											29
Tamarack							44												44
Upland Brush	342						155												497
Upland Hdwds							22												22
Water	51																		51
White Pine		8							30		4								42
<b>Total</b>	<b>581</b>	<b>56</b>	<b>28</b>	<b>44</b>	<b>216</b>	<b>404</b>	<b>461</b>	<b>203</b>	<b>126</b>	<b>53</b>	<b>349</b>	<b>6</b>						<b>76</b>	<b>2603</b>

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

MACKINAW STATE FOREST

GAYLORD FOREST MGT UNIT

OTSEGO COUNTY

COMPARTMENT: 14

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	680																										680	
S Black Spruce		5																									5	
G Grass					56																						56	
H Hemlock						6																					6	
J Jack Pine							29																				29	
L Lowlnd Brush									84																		84	
N Marsh											127																127	
Q Mx Swmp Cnfr												443															443	
X Non Stocked													5														5	
O Oak	16													168										76			260	
R Red Pine															205												205	
F Spruce Fir																			18								18	
E Swamp Hrdwds																				29							29	
T Tamarack																					44						44	
U Upland Brush																								497			497	
M Upland Hdwds																								22			22	
Z Water																									51		51	
W White Pine																										42	42	
Total	696	5			56	6	29		84		127	443	5	168		205			18	29	44			497	98	51	42	2603

MACKINAW STATE FOREST

GAYLORD FOREST MGT UNIT

OTSEGO COUNTY

COMPARTMENT: 14

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

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	7332 Cds	Hardwood	2477 Cds
Hardwood	1232 Mbf	Hardwood	353 Mbf
Softwood	6114 Cds	Softwood	504 Cds
Softwood	1752 Mbf	Softwood	306 Mbf
Sum TotVol	19414 Cds	Sum CutVol	4299 Cds
<b>Total Cmpt Acres</b>		Acres Proposed For Cut.....	
2603		410	

**GAYLORD FOREST MGT UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 14**

**Entry Year: 2009**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status	
1	U2	117	48	55	upland brush	nonstocked		0	opening maintenance		
comnts Fmd : Previously managed for sharp-tail grouse. Wildlife would like to prescribe burn stand.											
2	U0	169		55	upland brush	nonstocked		0	opening maintenance		
comnts Fmd : Upland brush proposed for prescribed burning.											
7	R6	18	47	55	red pine	mature	thinning	1			
comnts Fmd : Thin to remove approximately every third row for first time thinning. Minor component of cherry, r.maple, balsam fir that should be removed in cut rows only.											
13	O9	76		60	northern hardwood	mature	selection	1	natural regeneration		
comnts Fmd : Nice Red Oak & northern hardwood stand. Selection cut prescribed to create regeneration holes by removing mature oak & other species. Species thin to remove all aspen & white birch. Hilly terrain along north and east stand boundary, but still workable. M.O.= M due to density of maple, beech, hemlock. Oak will be secondary M.O.											
34	A5	63	45	65	aspen (upland)	mature	final harvest	1			
comnts Fmd : Final harvest stand to remove aspen, black spruce, balsam fir, red maple, white birch. Leave any scattered red & white pine, and oak. Some mortality in aspen noted.											
37	A5	30	45	65	aspen (upland)	mature	final harvest	1			
comnts Fmd : THIS STAND IS ON A WETTER SITE. 2007: Final harvest prescribed. Aspen has some conks, hypoxylon canker & signs of some mortality. Harvest aspen, balsam fir, red maple. O.K. to leave a few scattered red pine.											
44	A6	34	47	55	aspen (upland)	mature	final harvest	1			
comnts Fmd : A6 with some Jack Pine. Final harvest both aspen & j.pine. Mortality noted in both species.											
46	A5	35	77	55	aspen (upland)	mature	final harvest	1			
comnts Fmd : Moderately stocked mixed stand of aspen & swamp conifer. Final harvest to cut aspen, balsam fir, black spruce, red maple. Leave a 100' buffer along the swamp edge. Leave white cedar & white pine uncut. Optional to leave a few old relic red pine. Protect survey corners & witnesses.											
47	A6	19	65	60	aspen (upland)	mature	final harvest	1			
comnts Fmd : Mature aspen with intermixed white pine. Final harvest aspen, leave white pine. A separate stand of white pine is delineated adjacent to the marsh. NOTE: THERE WILL BE NO RETENTION FOR THIS NARROW STAND. Also, minor component of oak will be left uncut, and a two inch rule will be noted for the harvest contract in regards to the understory species.											
50	A6	2	42	58	aspen (upland)	mature	final harvest	1			
comnts Fmd : Aspen mature. Final harvest with the exception of leaving any white pine. Cut any intermixed red maple & balsam fir.											
54	R9	27	60	58	red pine	mature	selection	1			
comnts Fmd : Select mark red pine, white pine, and red maple. Make regeneration holes. Note: MO = mixed pine. White pine is most likely to be dominant management objective with a dense understory. Do not cut oak.											
55	O9	95	60	55	oak	mature	selection	1			
comnts Fmd : Lots of large diameter oak and red pine. Stand would benefit from a selection cut. Cut aspen 6" dbh & larger. Protect younger aspen regen. Mark out oak, red pine, and red maple. Stand has established oak seedlings, white pine, red pine, and aspen regen. Already established. MO= Mixed oak & pine stand. Continue to manage for oak-pine with regeneration efforts.											
<b>Total Acres.....</b>		<b>685</b>									

**GAYLORD FOREST MGT UNIT**

**Proposed Treatments  
With Limiting Factors**

**Compartment: 14**

**Entry Year: 2009**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status
110	Q6	6	85	40	mixed swamp conifer	old growth (potential or actual)	final harvest	3		

TREATMENT LIMITING FACTORS: Water quality/bmps  
Potential or designated old growth

comnts Fmd : Dense swamp conifer with nice white cedar. Strip of swamp conifer timber west of creek running N30E. Buffer the creek and Chub Creek. Winter cut only due to wet soils. Stand does fall into HCVA classification since it's within 400' of Chub Creek. Cutting requirements to buffer along Chub Creek is 150'.

128	Q5	5	91	47	mixed swamp conifer	low quality	final harvest	3		
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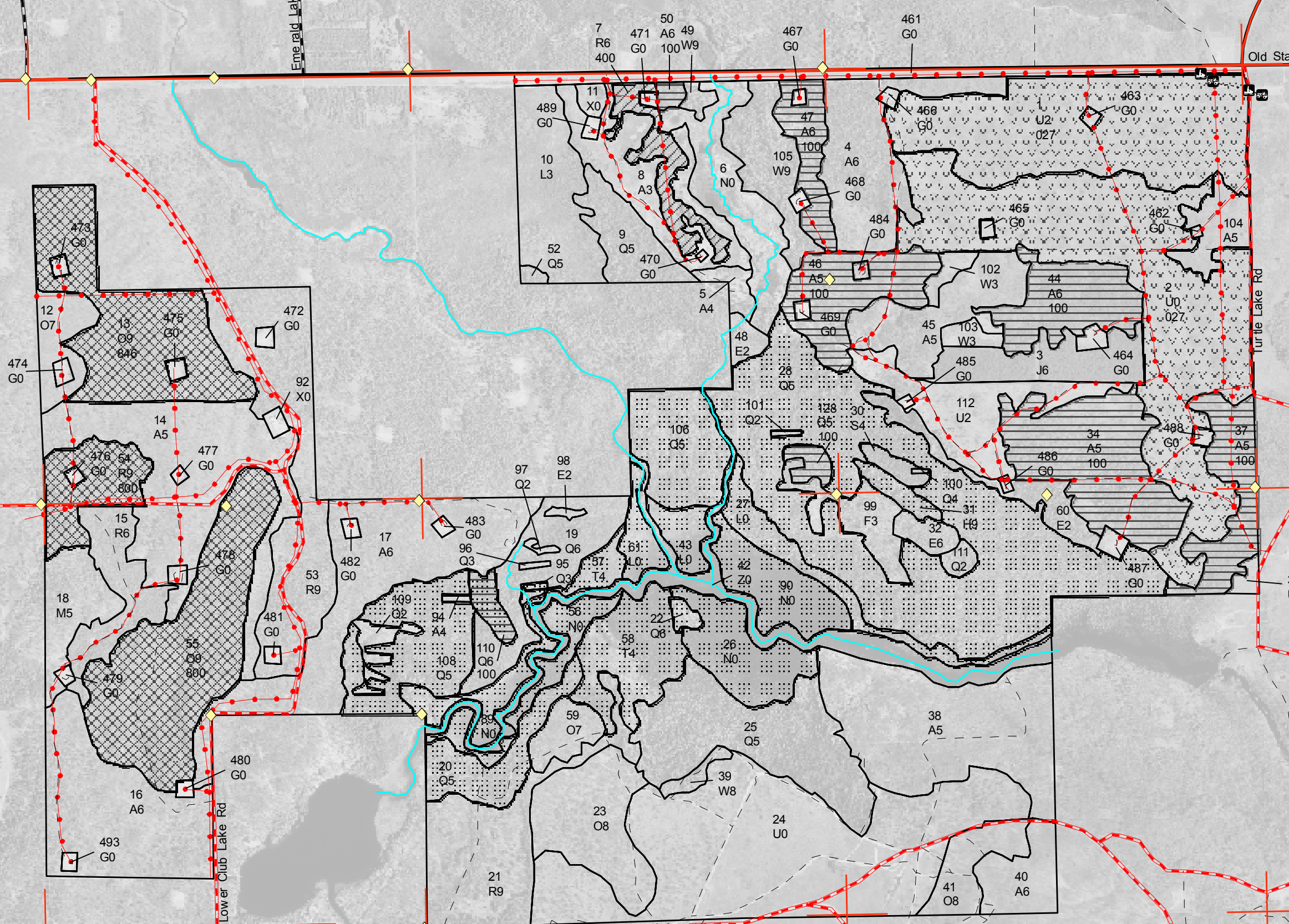
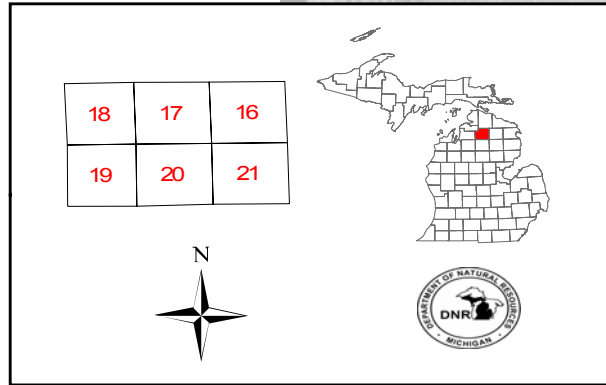
TREATMENT LIMITING FACTORS: Water quality/bmps  
Too wet  
Inadequate volume due to low stocking/small diameter/etc.

comnts Fmd : LOTS OF STIP CUTS THAT ARE F3 OF VARIOUS AGES. MANY AREAS BLOWNDOWN. 2007: Variable stand density ranging from Q4 - Q6. Wildlife requested a cut for this area. Non-commercial & limited factor applied due to poor access & water, BMP concerns.

**Total Acres..... 11**

# Field Map

Compartment 14  
 T29N, R02W, Sec. 16-21  
 County: Otsego  
 Unit: Gaylord  
 YOY: 2009  
 Acres: 2,603 GIS Calculated  
 Stand Examiner: Kim Lentz  
 Map Revised: 4/26/2007  
 Map Phase: Pre-review



**Legend**

- RLS Corners
- Miris Corners
- County Paved Roads
- County Gravel Roads
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Trails
- ORV Routes
- Pipelines
- Water Features
- Snowmobile Trails
- ORV Routes
- Stand Boundary
- Biodiversity/Old Growth Area
- 027 - Opening Maintenance/Prescribed Burning
- 100 - Final Harvest
- 400 - Thinning
- 800 - Selection
- 846 - Selection/Natural Regeneration

