



**GAYLORD FOREST MANAGEMENT UNIT  
COMPARTMENT REVIEW PRESENTATION**

**COMPARTMENT: 13**

**ENTRY YEAR: 2009**  
**Compartment Acreage: 2,781**  
**County: OTSEGO**

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

**Stand Examiner:** Greg Gatesy

**Legal Description:** T29N R2W Sections 13-15, 22 and 23

**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:** Rubicon, Augres and Croswell sands on the uplands and Tawas muck in the lowlands.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Private to the south otherwise all state. Compartment 14 located immediately to the west is a 2009 YOE as well.

**Unique, Natural Features:** This compartment along with compartments 11, 12 and 14 have large adjacent opening areas within them which will be managed collectively. There are several representative white pine log stands within this compartment which will be managed for their historic, unique, visual and representative values.

**Archeological, Historical, and Cultural Features:** None known.

**Special Management Designations or Considerations:** Some SCAs proposed.

**Watershed and Fisheries Considerations:** This compartment is in the Au Sable River watershed, and contains portions of Crapo Creek, and an unnamed tributary to Crapo Creek. Crapo Creek is a warm water stream in this area. Proposed prescriptions for this compartment promote wildlife species diversity in the riparian zone.

**Wildlife Habitat Considerations:** This compartment contains both upland and lowland areas. The lowland area is used by bear, deer and snowshoe hares. This compartment receives a considerable amount of hunting pressure from both upland game hunters and deer hunters. A considerable amount of aspen is prescribed in this compartment to maintain early successional habitat. Stands 267 and 67 will be treated in 10 years to maintain age class diversity. Stand 700 will be cut to regenerate the oak component. Stand 252 and 65 will have clumps of spruce left to be cut five years after the treatment to provide habitat for snowshoe hare. The large U, G, and lowly stocked aspen complex is heavily used by deer, grouse, woodcock, and open land songbirds.

**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 600 and 1,000 feet. The Mississippian Coldwater Shale subcrops below the glacial drift. The Coldwater does not have an economic use. The nearest gravel pit is located 2.5 miles to the northeast, but there may be potential on the uplands. The compartment has been developed for Antrim Shale gas production and is also located in the Niagaran reef trend. Section 15 is an underground gas storage field, a former producing Niagara reef. All State lands are leased.

**Vehicle Access:** Access is good throughout the compartment.

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

**Recreational Facilities and Opportunities:** This compartment contains the Gaylord to Lewiston Snowmobile Trail, the ORV Trail and cycle trail.

**Fire Protection:**

**Additional Compartment Information:** Alternate red pine/jack pine strip plantations will be converted to either all red pine or white pine plantations over the next 20 years. Most of the compartment is PArVHa with some PArVVb Kotar classification.

- **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: 13

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			85	68	31	391	103	11	8		22								719
Black Spruce						9				5	32								46
Bog or Marsh	15																		15
Grass	105																		105
Jack Pine			58			31	107		10										206
LowInd Brush	108																		108
Marsh	25																		25
Mx Swmp Cnfr							25			15	212								252
Non Stocked	48																		48
Oak										103									103
Red Pine						150	300		68	20	29								567
Spruce Fir				45															45
Swamp Hrdwds						15													15
Upland Brush	281						33												314
Water	12																		12
White Pine		16				144	13					10	2					16	201
<b>Total</b>	<b>594</b>	<b>16</b>	<b>143</b>	<b>113</b>	<b>31</b>	<b>740</b>	<b>581</b>	<b>11</b>	<b>86</b>	<b>143</b>	<b>295</b>	<b>10</b>	<b>2</b>				<b>16</b>		<b>2781</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: 13

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	719																										719
S Black Spruce		31																	15								46
V Bog or Marsh			15																								15
G Grass					105																						105
J Jack Pine	29						62									98								17			206
L Lowlnd Brush									108																		108
N Marsh											25																25
Q Mx Swmp Cnfr												239							13								252
X Non Stocked													48														48
O Oak														99	4												103
R Red Pine															554										13	567	
F Spruce Fir																			45								45
E Swamp Hrdwds																			15								15
U Upland Brush	15															33							266			314	
Z Water																									12	12	
W White Pine																									201	201	
<b>Total</b>	<b>763</b>	<b>31</b>	<b>15</b>		<b>105</b>		<b>62</b>		<b>108</b>		<b>25</b>	<b>239</b>	<b>48</b>	<b>99</b>	<b>689</b>				<b>73</b>	<b>15</b>			<b>283</b>		<b>12</b>	<b>214</b>	<b>2781</b>

MACKINAW STATE FOREST

GAYLORD FOREST MGT UNIT

OTSEGO COUNTY

COMPARTMENT: **13**

*Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS*

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	9792 Cds	Hardwood	6352 Cds
Hardwood	1175 Mbf	Hardwood	480 Mbf
Softwood	24447 Cds	Softwood	8925 Cds
Softwood	3490 Mbf	Softwood	1033 Mbf
Sum TotVol	43569 Cds	Sum CutVol	18303 Cds
<b>Total Cmpnt Acres</b>		Acres Proposed For Cut.....	1049
2781			

**GAYLORD FOREST MGT UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 13**

**Entry Year: 2009**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
<b>2</b>	<b>O9</b>	73	86	70	oak	mature	shelterwood-prep	2		
comnts Fmd : Section 13 N1/2NW. Mature oak stand with mixture of young (<20 yrs old) and mature aspen (50+ yrs old). Oak is mixed quality. Some A3Rm3. Prescription: (GMSC) Final harvest a portion of this stand, Selectively cut the oak in other portions, shelterwood in others and manage for aspen where BA presents that opportunity. Goal is to produce a mixed age/species composition stand of oak, aspen, and red maple as well as manage for quality red oak where practicle.										
<b>6</b>	<b>R6</b>	19	48	45	red pine	immature	thinning	1		
comnts Fmd : Section 13 W1/2E1/2. Every third row thin.										
<b>20</b>	<b>R6</b>	11	47	50	red pine	immature	thinning	1		
comnts Fmd : Section 15 NWNE.										
<b>36</b>	<b>A5</b>	90	43	53	aspen (upland)	mature	final harvest	1		
comnts Fmd : Section 15 center. Leave 10 acres for retention.										
<b>40</b>	<b>R6</b>	27	47	62	red pine	immature	thinning	1		
comnts Fmd : Section 22 SENE. THINNING COMPLETED IN 1996. 2006 comments: Marked thinning to reduce BA to 120.										
<b>41</b>	<b>R6</b>	37	49	60	red pine	immature	thinning	1		
comnts Fmd : Section 22 SENW. (1996 comments:THINNING COMPLETED IN 1996.) 2006 comments: <30% of volume logs, most are too branchy to be considered logs. Marked thinning to reduce BA to 120. Leave 1.5 acres in NE corner of stand for retention. Leave snags and mark 1% of trees to create snags and felled trees for retention.										
<b>42</b>	<b>R6</b>	38	49	55	red pine	immature	thinning	1		
comnts Fmd : Section 22 NWSE. THINNING COMPLETED IN 1996. 2006 comments: not as consistent as stand 41. More open in places but the avg dbh is slightly higher (10+). Marked thinning to reduce BA to 120. Leave 1.5 acres in NE corner for retention. Leave snags and Mark 1% of trees for retention.										
<b>43</b>	<b>A5</b>	24	28	63	aspen (upland)	sparse	final harvest	3		
comnts Fmd : Section 22 SWSE. Protect Hawthorn. Incorporate area of denses Hawthorn with retention and leave one acre.										
<b>44</b>	<b>R6</b>	36	49	67	red pine	immature	thinning	1		
comnts Fmd : Section 22 SESE.THINNING COMPLETED IN 1996. 2006 comments: Marked thinning prescibed to reduce BA to 120.										
<b>45</b>	<b>A6</b>	51	46	50	aspen (upland)	mature	final harvest	1		
comnts Fmd : Section 22 NESE. Some hypoxylon. Small amount of Upland brush mixed in. Protect hawthorn and incorporate with area for retention, one acre.										
<b>47</b>	<b>R9</b>	13	47	67	white pine	immature	final harvest	1	planting	
comnts Fmd : Section 23 NWSW. (1996 comments: THIRD ROW THIN & REMOVE INTERMIXED SPECIES. FDF POTENTIAL.) 2006 comments: Final harvest. Plant white pine. No retention (plantation).										
<b>49</b>	<b>J6</b>	50	52	48	red pine	immature	final harvest	1	planting	
comnts Fmd : Section 23 NW1/4. (1996 comments:LOW QUALITY 1 STICK J.PINE OF NO COMMERCIAL VALUE.). 2006 remarks: Final harvest and plant red pine. The north part of the 3rd and 4th group from west should be managed for white pine so no cut in this area of the group. No retention (plantation).										
<b>50</b>	<b>R9</b>	57	52	67	red pine	immature	final harvest	1	planting	
comnts Fmd : Section 23 NW1/4. (2000 remarks: THIRD ROW THINNING & REMOVE INTERMIXED SPECIES. FDF POTENTIAL). 2006 remarks: Final harvest to reduce 50 year old age class which is prevelant in this areas red pine resource. Plant red pine. No retention (plantation).										
<b>53</b>	<b>A6</b>	106	38	55	aspen (upland)	mature	final harvest	1		
comnts Fmd : Section 23NE1/4. Very wet site. Final harvest may produce aspen, red maple, or tag alder as regeneration in varying degrees of density and location. Leave 5 acres in wet areas for retention.										
<b>61</b>	<b>R9</b>	14	47	67	red pine	immature	thinning	1		
comnts Fmd : Section 23 SESE. (1996 comments:THIRD ROW THIN & REMOVE INTERMIXED SPECIES. FDF POTENTIAL.) 2006 remarks: Mark to reduce basal area to 130. Leave rows in eastern most group for Retention which equals approximately 10% of stand. Leave snags in other groups and mark 1% of trees for snag creation for retention.										

**GAYLORD FOREST MGT UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 13**

**Entry Year: 2009**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
<b>62</b>	<b>J6</b>	17	52	44	upland brush	immature	final harvest	3		
comnts Fmd : Section 23 SESE. (1996 comments:HOLD FOR 10 YRS. TO ADD GROWTH & MERCHANTABILITY.) 2006 comments: Cut western most group and 3rd group from west. Leave one row per group for retention which equals approximately 5% of stand. Leave eastern most group for retention which is equal to 12% of stand. Cut groups should be managed for wildlife habitat now and converted to red pine management when stand No.61 is final harvested in 20-30 years.										
<b>64</b>	<b>R6</b>	29	47	46	red pine	immature	thinning	1		
comnts Fmd : Section 23 SENE.										
<b>65</b>	<b>S6</b>	9	91	29	spruce-fir (uplands-including upland black spruce)	mature	thinning	3		
comnts Fmd : Section 13 SWSW. Upland spruce adjacent to lowland swamp type of mostly spruce. Reproduction could be balsam, spruce red male or aspen. Retain 4-5 balsam trees in 4-5 groups to be cut in 5 years for snowshoe hares. Leave 1-2 acres for retention.										
<b>66</b>	<b>A5</b>	11	60	50	aspen (upland)	mature	final harvest	2		
comnts Fmd : Section 13 SWSW.										
<b>71</b>	<b>R6</b>	14	48	50	red pine	immature	final harvest	1	planting	
comnts Fmd : Section 13 NESE. Final harvest. No retention (plantation). Plant red pine.										
<b>72</b>	<b>J6</b>	8	48	38	red pine	mature	final harvest	1	planting	
comnts Fmd : Section 13 SE1/4. (1996 comment: POOR QUALITY PLANTATION). Final harvest. No retention(plantation). Plant red pine. <span style="float:right">2007 comment:</span>										
<b>76</b>	<b>A5</b>	34	26	55	aspen (upland)	mature	final harvest	1		
comnts Fmd : Section 22 NE1/4. Variable density and degrees of wet soil. Reproduction could be aspen, balsam, balm-of-gilead, red maple, ash or tag alder. Leave some balsam pockets equal to 2-3 acres for retention.										
<b>79</b>	<b>J6</b>	10	71	48	aspen (upland)	mature	final harvest	3		
comnts Fmd : Section 13 NENW. Protect oak regeneration. Leave oak. Leave one acre for retention.										
<b>80</b>	<b>A6</b>	31	43	60	aspen (upland)	immature	final harvest	1		
comnts Fmd : Section 15 SWSW. 2006 comments: Final harvest. Consider cutting adjacent stand 37 compartment 14.										
<b>102</b>	<b>O9</b>	26	86	70	oak	mature	shelterwood-prep	2		
comnts Fmd : Section 13 NWNW. Mature oak stand with mixture of young (<20 yrs old) and mature aspen (50+ yrs old). Oak is good quality. . Prescription: (GMSC) , Selectively cut the oak and manage for aspen where BA presents that opportunity. Goal is to produce a mixed age/species composition stand of oak, aspen, and red maple as well as manage for quality red oak.										
<b>104</b>	<b>J6</b>	8	14	47	red pine	mature	final harvest	1	planting	
comnts Fmd : Section 13 NE1/4. Final harvest. No retention(plantation). Plant red pine.										
<b>107</b>	<b>J6</b>	9	39	47	aspen (upland)	immature	final harvest	2		
comnts Fmd : Section 13 W1/2E1/2 Regeneration objective is for aspen, oak, red maple and or jack pine. Leave oak and leave south most acre for retention.										
<b>120</b>	<b>R6</b>	56	47	50	red pine	immature	thinning	1		
comnts Fmd : Section 15 NWNW.										
<b>130</b>	<b>J6</b>	10	43	53	aspen (upland)	mature	final harvest	3		
comnts Fmd : Section 15 NENW.										
<b>132</b>	<b>A5</b>	15	50	55	aspen (upland)	mature	final harvest	1		
comnts Fmd : Section 15 N1/2 NWNW. (1996 comment: DESIGNATED SHARPTAIL GROUSE MANAGEMENT AREA.SCATTERED ASPEN CLONES.)										
<b>141</b>	<b>U1</b>	33	49	60	red pine	nonstocked		0	planting	
comnts Fmd : Section 22 SENW. Plant red pine.										

**GAYLORD FOREST MGT UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 13**

**Entry Year: 2009**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDI Status	
<b>143</b>	<b>U4</b>	15		55	aspen (upland)	sparse	final harvest	3			
comnts Fmd : Section 22 SWSE. SCATTERED ASPEN CLONES											
<b>152</b>	<b>A5</b>	22	91	29	aspen (upland)	mature	final harvest	3			
comnts Fmd : Section 14 W1/2SE. Upland spruce adjacent to lowland swamp type of mostly spruce. Retain trees 1/2 chain around wet areas of stand 55 for retention.											
<b>165</b>	<b>Q6</b>	13	91	29	spruce-fir (uplands- including upland black spruce)	mature	final harvest	3			
comnts Fmd : Section 13 SWSW. Lowland swamp type of mostly spruce. Reproduction could be balsam, spruce red male or aspen. Leave 1-2 acres for retention. Avoid Crapo Creek.											
<b>171</b>	<b>R6</b>	3	48	50	red pine	immature	final harvest	1	planting		
comnts Fmd : Section 13 NESE. Final harvest. No retention(plantation). Plant red pine.											
<b>172</b>	<b>J6</b>	13	48	38	red pine	mature	final harvest	1	planting		
comnts Fmd : Section 13 SE1/4. (1996 comment: POOR QUALITY PLANTATION). 2007 comment: Final harvest. No retention(plantation). Plant red pine.											
<b>202</b>	<b>O9</b>	4	86	70	red pine	mature	final harvest	1	planting		
comnts Fmd : Section 13 N1/2NW. Mature oak stand with mixture of aspen oak and red maple. Oak is mixed quality. Goal is to produce a mixed species composition stand of oak, red pine, aspen, and red maple. Plant red pine.											
<b>243</b>	<b>A5</b>	7	28	63	aspen (upland)	sparse	final harvest	3			
comnts Fmd : Section 22 SWNE.											
<b>252</b>	<b>S6</b>	6	91	29	spruce-fir (uplands- including upland black spruce)	mature	final harvest	3			
comnts Fmd : Section 14 SWSE. Upland spruce adjacent to lowland swamp type of mostly spruce. Reproduction could be balsam, spruce red maple or aspen. Leave pockets of 4-5 pole size trees to cut in 4-5 years for snowshoe hare. Leave .5 acres for retention.											
<b>271</b>	<b>R6</b>	5	48	50	red pine	immature	final harvest	1	planting		
comnts Fmd : Section 13 NESE. Final harvest. No retention(plantation). Plant red pine.											
<b>272</b>	<b>J6</b>	17	48	38	red pine	mature	final harvest	1	planting		
comnts Fmd : Section 13 SE1/4. (1996 comment: POOR QUALITY PLANTATION). 2007 comment: Final harvest. No retention (plantation). Plant red pine.											
<b>352</b>	<b>A6</b>	4	38	55	aspen (upland)	mature	final harvest	2			
comnts Fmd : Section 23 NENE. Reproduction can be aspen, red maple, white birch or balsam.											
<b>371</b>	<b>R6</b>	5	48	50	red pine	immature	final harvest	1	planting		
comnts Fmd : Section 13 NESE. Final harvest. No retention(plantation). Plant red pine.											
<b>372</b>	<b>J5</b>	2	48	38	red pine	mature	final harvest	1	planting		
comnts Fmd : Section 13 SESE. (1996 comment: POOR QUALITY PLANTATION). 2006 comment: Final harvest. No retention(plantation). Plant red pine.											
<b>Total Acres.....</b>		<b>1082</b>									

**Proposed Treatments  
With Limiting Factors**

**Compartment: 13**

**Entry Year: 2009**

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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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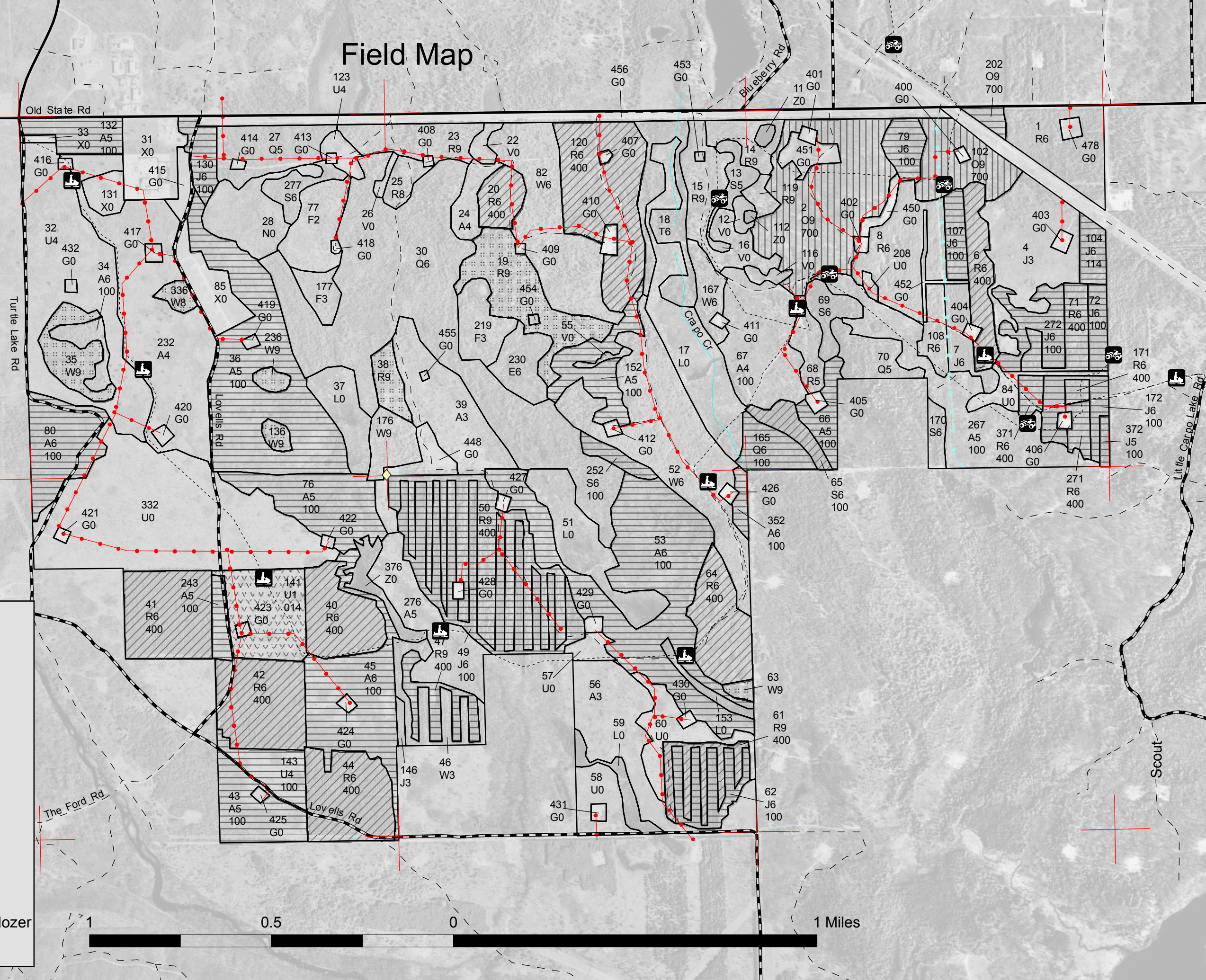
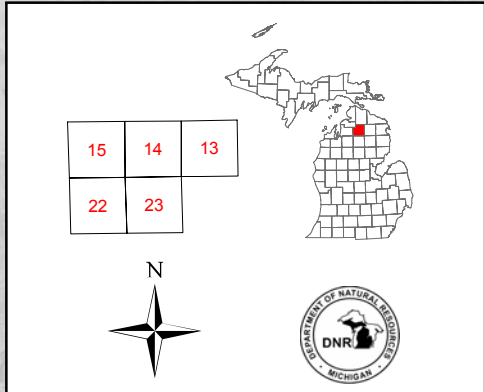
TREATMENT LIMITING FACTORS:

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

# Field Map

Compartment 13  
 T29N, R02W, Sec. 13-15, 22-23  
 County: Otsego  
 Unit: Gaylord  
 YOE: 2009  
 Acres: 2,781 GIS Calculated  
 Stand Examiner: Gregory Gatesy  
 Map Revised: 6/01/2007  
 Map Phase: Pre-review



**Legend**

- RLS Corners
- Miris Corners
- Paved Roads
- Gravel Roads
- Powerlines
- Pipelines
- Poor Dirt Roads
- Trails
- Water Features
- ORV Trails
- Snowmobile Trails
- Stand Boundary
- Biodiversity/Old Growth Area
- 014 - Planting/Bulldozer
- 100 - Final Harvest
- 114 - Final Harvest/Planting/Bulldozer
- 400 - Thinning
- 700 - Shelterwood-prep

