



## COMPARTMENT REVIEW PRESENTATION *GAYLORD FOREST MANAGEMENT UNIT*

**COMPARTMENT: 024**

**ENTRY YEAR: 2014**

**ACREAGE: 537**

**COUNTY: OTSEGO**

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**Revision Date: 3/22/2012**

**Stand Examiners: Josh Wall, Zach Crew**

**Legal Description:** Otsego County, T30N R01W Sections 31, 32, and 33

**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:** Soils in this compartment are Rubicon Sand, Emmet Sandy Loam, and Roselawn Sand. The terrain is level to gently rolling.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:**

**Unique, Natural Features:** The ownership on the north and south side of this compartment is primarily private. Deer and small game hunting, snowmobiling and riding ORV's are the primary recreational activities in this compartment

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

**Special Management Designations or Considerations:** Listed are the MNFI comments; Slight potential secretive locust in V types; slight potential for dusted skipper, blazing star borer, and red-legged spittlebug in grassy openings. Pale agoseris record to the west. Pale agoseris, Rough fescue, Hill's thistle to the south. Potential for dry Prairie plants in grassy openings. Hill's thistle, rough fescue, Prunus alleghaniensis and pale agoseris.

**Watershed and Fisheries Considerations:** This compartment is to the northeast of Big Bass Lake. There are no water bodies in this compartment, so Fisheries has no concerns.

**Wildlife Habitat Considerations:** This compartment consists mostly of upland areas of aspen, oak and red pine. Harvest will concentrate on regenerating the oak for future mast production while leaving clumps and scattered individual islands for current mast production and a seed source. There will be one aspen stand treated to maintain age class diversity. This early successional habitat benefits white-tailed deer, wild turkey, grouse, woodcock, and various

songbirds. This area receives significant hunting pressure for white-tailed deer, grouse, woodcock, and wild turkey.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and an end moraine of medium-textured till. The glacial drift thickness varies between 600 and 1,000 feet. The Mississippian Coldwater Shale subcrops below the glacial drift and does not have a current economic use. The nearest gravel pit is located in Section 31 and potential appears to be good. The compartment appears to be completely developed for Antrim Shale gas production and has had some Guelph (former Niagaran) reef development. Additional potential exists for Guelph reefs.

**Vehicle Access:** Compartment is easily accessible by way of county road, forest trails, and/or non-exclusive pipeline right-of-ways.

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

**Recreational Facilities and Opportunities:**

**Fire Protection:** The many pipelines and large power line provide excellent fuel breaks. Equipment access is not a concern.

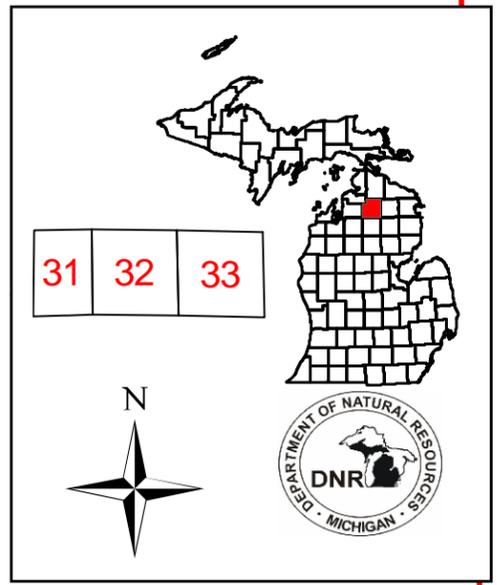
**Additional Compartment Information:**

- **The following 3 reports from the IFMAP Inventory System are attached:**
  - ◆ **Cover Type by Age Class**
  - ◆ **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 and current SCA's**

# Cover Type & Treatment Map

Compartment: 024  
 T30N R01W Sec. 31-33  
 County: Otsego  
 Unit: Gaylord  
 YOE: 2014  
 Acres: 537 GIS Calculated  
 Examiner: Josh Wall, Lucas Merrick  
 Map Revised: 05/16/2012  
 Map Phase: Pre-Review

**Stand #**  
 23  
**Stocking Density**  
 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

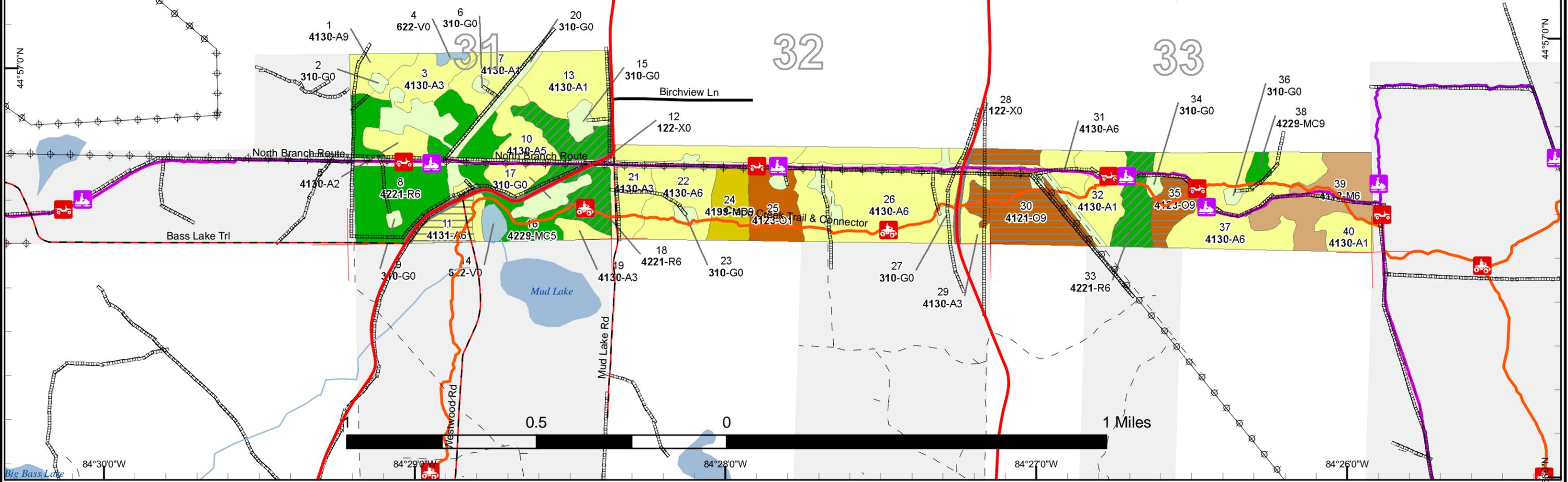


### Legend

—+—	Miris Corners	▨	Clearcut (w/Reserves, Patch/Strip)
+	Remonumented Section Corners	▧	Thinning (Crown, Low, Systematic)
— — —	Pipe		
⊕	Power		
—	Highway		
—	County Paved Roads		
—	Paved Roads		
—	County Gravel Roads		
—	Gravel Roads		
—	Poor Dirt Roads		
—	County Poor Dirt Roads		
---	Trail (Non-Recreation)		
---	Closed Roads		
---	Bike Trail		
•••	Horse Trail		
---	Ski Trail		
---	Hiking Trail		
○	Motorcycle (DNR Sticker)		
●	Motorcycle (SOS License)		
---	ORV Trail		
---	ORV Route		
---	Snowmobile Trail		
---	Stream		
---	Intermittent Stream		
---	Lakes and Rivers		

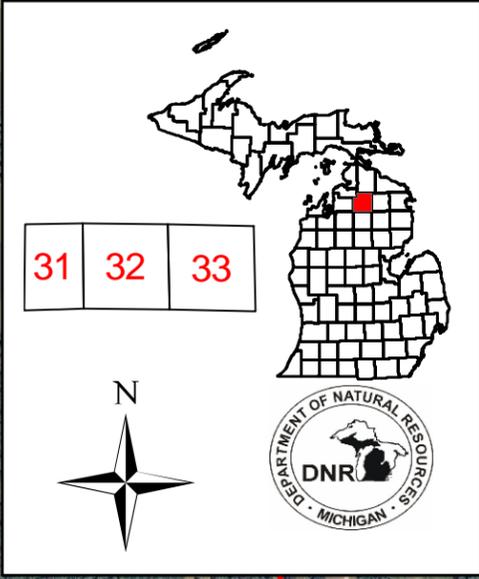
	<b>Treatments</b>
▨	Clearcut (w/Reserves, Patch/Strip)
▧	Thinning (Crown, Low, Systematic)
	<b>Forest Stands</b>
	Level 3
■	411 - Northern Hardwood
■	412 - Oak Types
■	413 - Aspen Types
■	419 - Mixed Upland Deciduous
■	422 - Natural Pines
	<b>Non-Forest Stands</b>
	Level 3
■	122 - Road/Parking Lot
■	310 - Herbaceous Openland
■	622 - Lowland Shrub
■	State Forest Land



# Stand Boundary Map

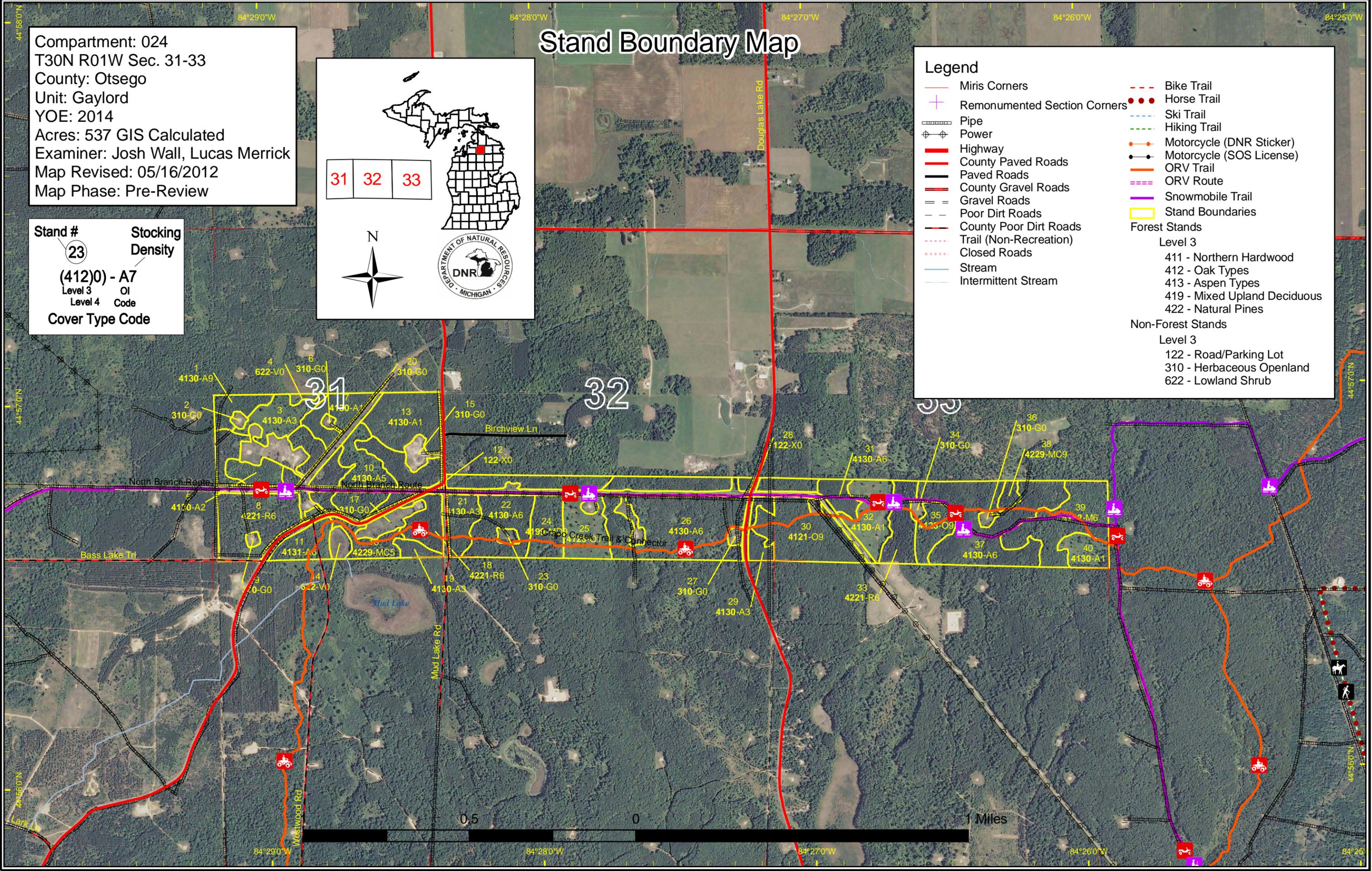
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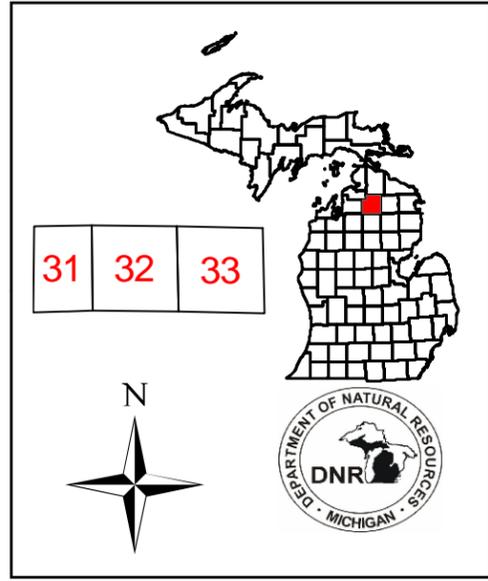
### Legend

	Miris Corners		Bike Trail
	Remonumented Section Corners		Horse Trail
	Pipe		Ski Trail
	Power		Hiking Trail
	Highway		Motorcycle (DNR Sticker)
	County Paved Roads		Motorcycle (SOS License)
	Paved Roads		ORV Trail
	County Gravel Roads		ORV Route
	Gravel Roads		Snowmobile Trail
	Poor Dirt Roads		Stand Boundaries
	County Poor Dirt Roads	<b>Forest Stands</b>	
	Trail (Non-Recreation)	Level 3	
	Closed Roads	411 - Northern Hardwood	
	Stream	412 - Oak Types	
	Intermittent Stream	413 - Aspen Types	
		419 - Mixed Upland Deciduous	
		422 - Natural Pines	
		<b>Non-Forest Stands</b>	
		Level 3	
		122 - Road/Parking Lot	
		310 - Herbaceous Openland	
		622 - Lowland Shrub	



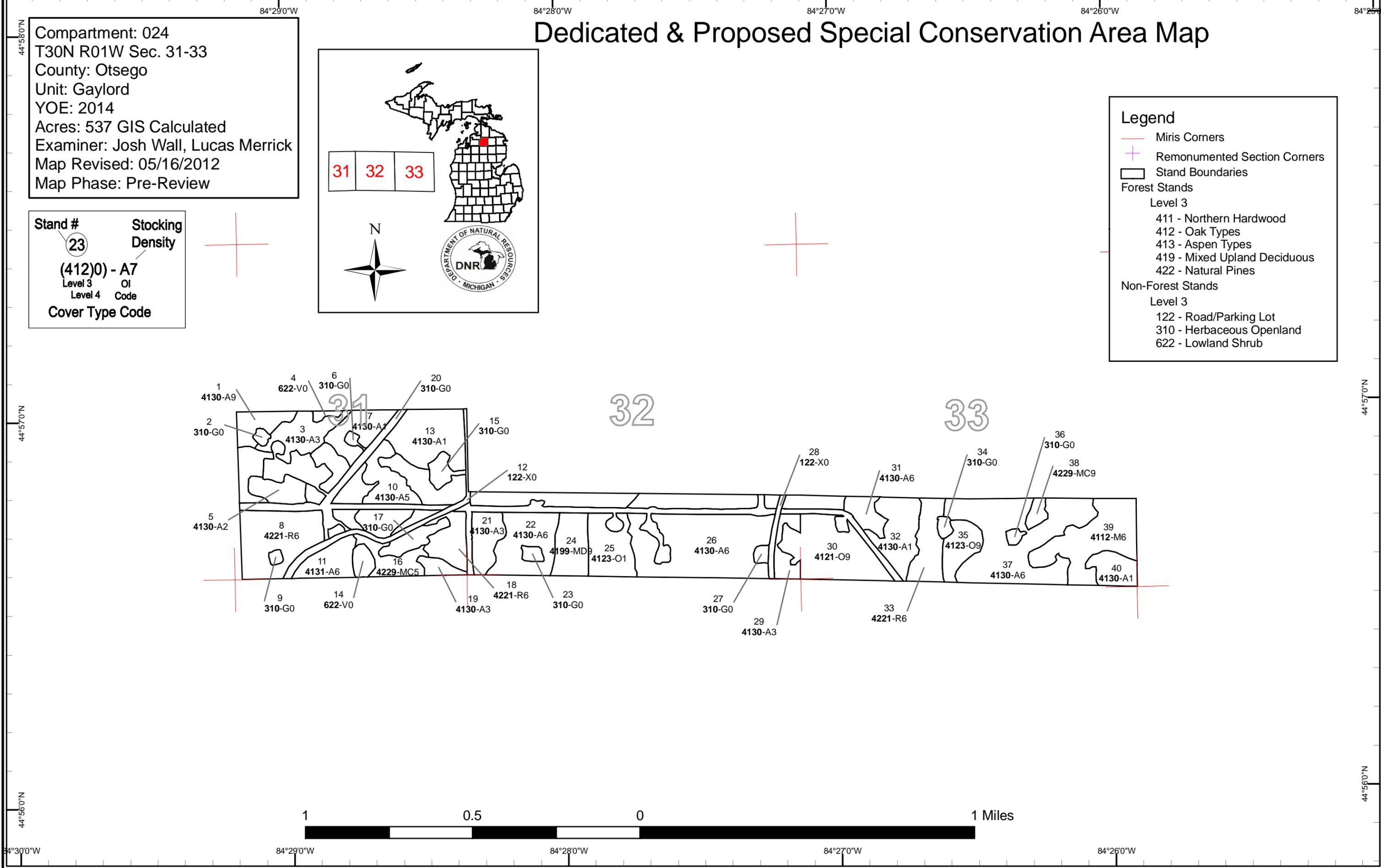
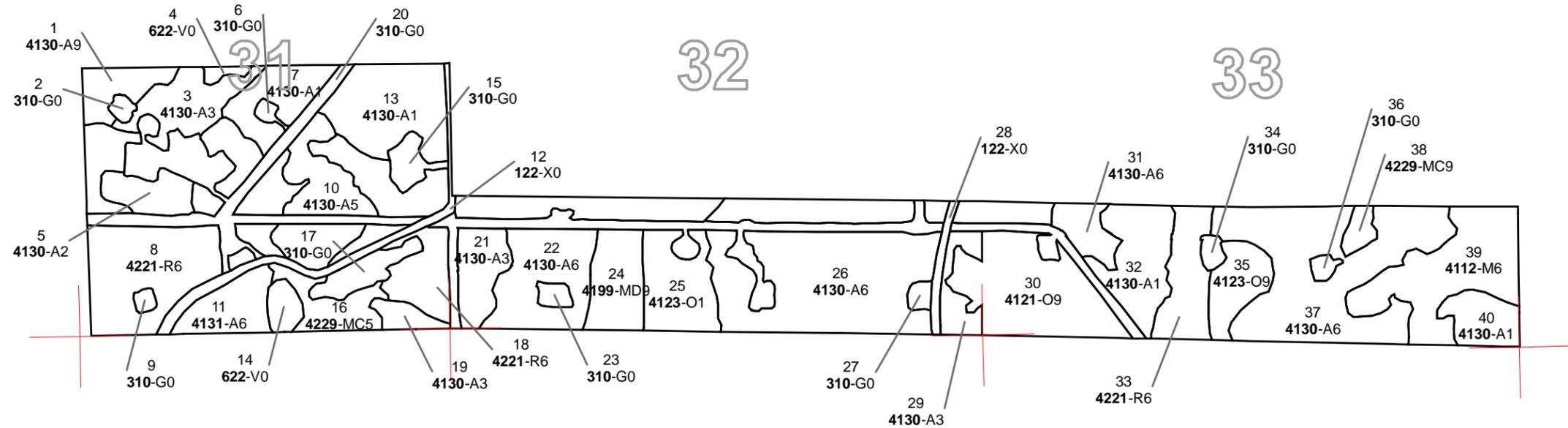
# Dedicated & Proposed Special Conservation Area Map

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 Unit: Gaylord  
 YOE: 2014  
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- Legend**
- Miris Corners
  - + Remonumented Section Corners
  - Stand Boundaries
  - Forest Stands
    - Level 3
      - 411 - Northern Hardwood
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        - 622 - Lowland Shrub



**Table 1 – Total Acres by Cover Type and Age Class**



	Age Class													Total	
	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 +		Uneven Age
Aspen	36	127	69	19	18	0	0	0	0	0	0	0	0	0	269
Bog	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Herbaceous Openland	66	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Mixed Upland Deciduous	0	0	0	0	0	0	12	0	0	0	0	0	0	0	12
Natural Mixed Pines	0	0	8	0	0	0	0	3	0	0	0	0	0	0	11
Northern Hardwood	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27
Oak	15	0	0	0	0	42	0	0	0	0	0	0	0	0	56
Red Pine	0	0	0	46	0	35	0	0	0	0	0	0	0	0	81
Urban	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
<b>Total</b>	<b>132</b>	<b>127</b>	<b>78</b>	<b>65</b>	<b>18</b>	<b>104</b>	<b>12</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>537</b>



## Table 2 – Proposed Treatment Summaries

**Gaylord Mgt. Unit**  
**Year of Entry 2014**

**Compartment 024**  
**Total Compartment Acres: 537.4**

### Acres by Treatment Type

Commercial Harvest - 84	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

### Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
<b>Aspen</b>	8	0	0	0	0	0	8
<b>Oak</b>	42	0	0	0	0	0	42
<b>Red Pine</b>	0	0	0	0	35	0	35
<b>Total</b>	49	0	0	0	35	0	84



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
11	52024011-Cut	7.7	4131 - Aspen, Oak	High Density Pole	46	81-110	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<u>Prescription</u> Clear-cut stand to promote Aspen suckering and Oak stump sprouting. Leave one Large Oak per acre for mast production. Buffer of 100' no cut <u>Specs:</u> has already been included for the Bog.										
<u>Other</u> ORV trail runs through stand, cut both sides of the trail but avoid damage to trail during harvest operations. Small acerage. <u>Comments:</u>										
<u>Next</u> Regen survey should follow with acceptable stocking being heavy to aspen with a few oak stump sprouts. <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										
18	52024018-Cut	22.5	42210 - Natural Red Pine	High Density Pole	52	141-170	Harvest	Systematic Thinning	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> First thinning, remove every third row starting with the thrid row from the outside. Only remove aspen that falls within harvest rows. Rows are <u>Specs:</u> fairly straight but some marking might need to occur on the west end of the south stand.										
<u>Other</u> <u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										
30	52024030-Cut	32.6	4121 - Oak, Aspen	High Density Log	59	81-110	Harvest	Clearcut with Reserves	4121 - Oak, Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clear-cut stand to promote Oak stump sprouting and Aspen suckering. Leave 2 to 6 oak in clumps of Oak per/ac for mast production. <u>Specs:</u>										
<u>Other</u> ORV trail runs through stand, cut both sides right up to the trail but avoiding damage to the trail itself. Cross trail at right angles if at all. <u>Comments:</u>										
<u>Next</u> Regen survey should follow with acceptable stocking. <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										
33	52024033-Cut	12.5	42210 - Natural Red Pine	High Density Pole	52	141-170	Harvest	Crown Thinning	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Marked thinning. Residual BA of 120. <u>Specs:</u>										
<u>Other</u> ORV trail runs through stand, cut both sides right up to the trail but avoiding damage to the trail itself. Cross trail at right angles if at all. <u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										

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	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
35	52024035-Cut	9.2	4123 - Red Oak	High Density Log	56	81-110	Harvest	Clearcut with Reserves	4123 - Red Oak	Cmpt. Review Proposal

Prescription Clear-cut stand to promote Oak stump sprouting and Aspen suckering. Leave at least one Oak per/ac for mast production.

Specs:

Other ORV trail runs through stand, cut both sides right up to the trail but avoiding damage to the trail itself. Cross trail at right angles if at all.

Comments:

Next MO is Red Oak. Regen survey should follow with acceptable stocking being 500+ Oak stems/ac

Steps:

Proposed

Start Date: 10/01/2013

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**Total Treatment  
Acreage Proposed: 84.4**

**Table 4 -- Treatments Prescribed with  
a Limiting Factor**



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Error

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Proposed  
Start Date: #Error

Limiting Factor and No  
Treatment Reason

**Total Treatment  
Acreage Proposed: 0**

Out of YOE -- Treatments  
Prescribed with No Limiting Factor

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
<u>Prescription Specs:</u>									
<u>Other Comments:</u>									
<u>Next Steps:</u>									
<u>Proposed Start Date:</u> #Error									

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**Total Treatment  
Acreage Proposed: 0**

Stand	Gaylord Mgt. Unit			5 – Forested Stands		Compartment: 024
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2014
						General Comments:
1	4130 - Aspen	High Density Log	7.2	43	51-80	Stand will hold until next cutting cycle, put on more volume.
3	4130 - Aspen	High Density Sapling	11.9	5		Cut in 07' fully stocked with 4,333 aspen stems/ac and 166 red maple stems/ac
5	4130 - Aspen	Medium Density	7.3	17	1-50	Cut in 95', well stocked, MO aspen
7	4130 - Aspen	Low Density Sapling	10.9	17	1-50	Poor quality aspen in spots, pine would due much better and should be encouraged where it occurs. Stand was cut in 95'
8	42210 - Natural Red Pine	High Density Pole	45.8	39	111-140	Little hardwood in the understory, stand will need to be thinned next cutting cycle. Row thinned in 07'
10	4130 - Aspen	Medium Density Pole	17.9	27	1-50	Very marginal stand, open grown aspen with pine, Most of the White Pine is on the south side of the road, MO natural White Pine that is very healthy and doing well under the marginal aspen overstory. 1' leaders.
11	4131 - Aspen, Oak	High Density Pole	10.6	46	81-110	MO Aspen and Oak, Clear-cut to promote Oak stump sprouting with Aspen, Mixed age classes Oak 60+ and Aspen 40+, No private line to run since the south line is state. ORV trail runs through stand, leave 100' buffer along bog and small part of stand North of Gingell Rd. Sale size should be 8 AC after buffer and north part of stand are left out.
13	4130 - Aspen	Low Density Sapling	21.4	17	1-50	Poor quality aspen in spots, pine would due much better and should be encouraged where it is naturally occurring. Stand was cut in 95'
16	42290 - Natural Mixed Pine	Medium Density Pole	8.3	21	51-80	Mixed aged pine stand, manage stand for areas of younger Jack Pine, Consider cutting all Jack Pine next inventory cycle to promote Norway and White Pine. The larger Jack Pine will still be standing in 10 years and the saps and poles will have put on more volume.
18	42210 - Natural Red Pine	High Density Pole	22.5	52	141-170	Additional BA swings, 150, 200, 180. Stand needs it's first entry row thinning. Rows are fairly straight so they shouldn't need to be marked. Take every third row starting with the third row from the outside. Don't remove all the aspen just what's in the rows to cut.
19	4130 - Aspen	High Density Sapling	3.3	17	1-50	Old railroad grade runs through stand. Cut in 95'
21	4130 - Aspen	High Density Sapling	22.0	17	1-50	Cut in 95', MO aspen, let it grow.
22	4130 - Aspen	High Density Pole	18.9	33	1-50	Stand was cut in 75' MO aspen
24	4199 - Other Mixed Upland Deciduous	High Density Log	11.8	63	81-110	Many old pine stumps, no cutting history, mixed aged Oak with hardwood/aspen component.





	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	4123 - Red Oak	Low Density Sapling	14.6	5		Cut 07', AJD full chip operation. Almost no slash but it was cut before 1/6 to 1/3 guidelines. Stand looks great otherwise. Averaged 1000 Red Oak/ac 100 Bigtooth/ac and 400 Red Maple/ac. Fully stocked but deer browse has kept oak from reaching that free to grow stage.
26	4130 - Aspen	High Density Pole	56.7	19	51-80	Part of this stand was cut in 76' and the rest was cut in 85'. Combined two stands because it makes sense to manage together and there isn't much growth difference. The southeast part of the stand is poor quality and makes for better pine ground.
29	4130 - Aspen	High Density Sapling	5.8	19	1-50	Well stocked stand of Bigtooth Aspen
30	4121 - Oak, Aspen	High Density Log	32.6	59	81-110	MO Oak Clear-cut stand to promote Oak and Aspen sprouting. Aspen is overmature and starting to fall apart and the Oak needs cut while it is still young enough to stump sprout and compete with the Aspen. Site Index of 72 for the Oak.
31	4130 - Aspen	High Density Pole	6.0	27	51-80	Stand was cut in 85' MO aspen
32	4130 - Aspen	Low Density Sapling	15.8	5		Cut 07' AJD full chip operation. Must have had more Aspen than Oak when cut because plots averaged 1,333 Aspen/ac 666 Red Maple/ac 333 Red Oak/ac 250 Beech/ac and 1166 shrubs/ac. The Oak is not free to grow yet and does have browse damage. Right now the stand sits at 8% Oak. Stand is fully stocked (had trees on every plot). MO Aspen/Oak mix
33	42210 - Natural Red Pine	High Density Pole	12.5	52	141-170	Additional BA swings 190, 120, 140 Stand should be thinned down to 110 by removing forked and intermidate trees. This would be a second marked thinning as it was row thinned in 96'. ORV trail runs through stand.
35	4123 - Red Oak	High Density Log	9.2	56	81-110	Could be held to next cutting cycle no problem, Little to no understory, ORV trail runs through stand. Stand is young enough to successfully stump sprout yet.
37	4130 - Aspen	High Density Pole	45.6	27	51-80	Cut 85', pocket of hardwood and young paper birch in NE corner, Bigtooth on ridges and Quaking on toe slopes. MO Aspen
38	42290 - Natural Mixed Pine	High Density Log	2.6	73	81-110	MO White Pine, Manage stand on extended rotation due to small size.
39	4112 - Maple, Beech, Cherry Association	High Density Pole	27.0	55	81-110	Heavy to Beech, possible thin next inventory cycle, more aspen in the east end of the stand.
40	4130 - Aspen	Low Density Sapling	8.0	5		Cut 07' 1,500 stems aspen/ac. Fully stocked (tree on every plot) with a few red oak stump sprouts.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	3102 - Grass	1.2	No	Unspecified	
4	6225 - Bog	1.2	No	Unspecified	
6	3102 - Grass	1.0	No	Unspecified	
9	3102 - Grass	1.0	No	Unspecified	
12	122 - Road/Parking Lot	8.0	No	Unspecified	
14	6225 - Bog	3.4	No	Unspecified	
15	3102 - Grass	3.9	No	Unspecified	
17	3102 - Grass	5.9	No	Unspecified	
20	3102 - Grass	47.4	No	Unspecified	
23	3102 - Grass	1.7	No	Unspecified	
27	3102 - Grass	1.4	No	Unspecified	
28	122 - Road/Parking Lot	2.7	No	Unspecified	
34	3102 - Grass	1.5	No	Unspecified	
36	3102 - Grass	1.3	No	Unspecified	



**7 – PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS**

\* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

Stand	SCA Type	SCA Name	Acres	Comments



### 8 – 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
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