

# **Compartment Review Presentation**

**Gaylord Forest Management Unit** 

Compartment 130 Entry Year 2015 Acreage: 842 County Emmet Management Area: Emmet Moraines

**Revision Date:** 05/22/2013

Stand Examiner: Don Stacks

### Legal Description:

T36N R04W Sections 13, 24, 25, 35, 36.

#### **Identified Planning 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:

Poorly drained sands and mucks on flat topography.

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

A subdivision exists adjacent to the southwest corner of the compartment, with other residences and small family farms located on the north, south, and west sides. An active private gravel pit is located on the west side of the compartment. State lands consisting of low, poorly drained soils and the west shore of Burt Lake exist along the entire east side of this compartment.

#### **Unique Natural Features:**

Large water starwort. Michigan monkey-flower to e, se, nw, ne, Limestone oak fern to e. Slough grass to sw. Menegazzia terebrata (lichen) to ne. Mesic northern forest to e. Intermittent wetland and rich conifer swamp to ne. Osprey and Douglas Stenelmis riffle beetle outside of compartment. Bald eagle and black tern east. King rail to sw. Osprey to sw. Bald eagle to ne and e/se. Red-shouldered hawk to w, nw, ne, and e/ne. Common loon to nw. Hungerford's crawling water beetle to n/nw. Eastern flat whorl to ne. Cooper's hawk to ne. Woodland vole to e. Lake sturgeon to e. Planorbella smithi (aquatic snail) to e. Potential for ram's head lady's-slipper, limestone oak fern, Michigan monkey-flower, round-leaved orchis, and calypso orchid in mixed conifer swamps. Potential for eastern massasauaga and wood turtle. Potential for marsh birds: common moorhen, king rail, yellow rail, American bittern, and least bittern.

#### Archeological, Historical, and Cultural Features:

Several occurrences exist but are not impacted by treatments.

#### **Special Management Designations or Considerations:**

None listed.

#### Watershed and Fisheries Considerations:

This compartment is to the west of Burt Lake and contains portions of the Maple river, Crooked river, and an unnamed tributary to Burt Lake. There should be a 100' buffer adjacent to the unamed tributary in section 13. Prescribed management actions for the rest of the compartment are appropriate for protection of these waterbodies.

#### Wildlife Habitat Considerations:

This compartment consists of mostly of lowland habitat associated with the Crooked and Maple Rivers. This lowland complex supports black bear, white-tailed deer, and various furbearers and amphibians. The upland portion of this compartment has two aspen stands that will be treated to provide age class diversity and early successional habitat that benefits white-tailed deer, ruffed grouse, American woodcock, wild turkey, snow shoe hare and various songbirds.

### Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel. The glacial drift thickness varies between 200 and 600 feet. The Devonian Traverse Group, Bell Shale and Dundee Limestone subcrop below the glacial drift. These formations are used for rock/stone and cement products. This area appears to be predominantly sand and gravel potential appears to be limited. The nearest oil and gas production, the Antrim Shale gas play, is located 20 miles to the south. The Compartment is leased for oil and gas development for the Collingwood Formation.

### Vehicle Access:

Access can be gained off of E. Brutus Rd. and Snider Rd. Only one other forest trail road exists due to the low ground and poorly drained soils found in most of the compartment.

### **Survey Needs:**

None needed at this time.

### **Recreational Facilities and Opportunities:**

No designated trails exist within this compartment, but various hunting and fishing opportunities can be found. Maple Bay State Forest Campground is located two miles east of the compartment.

## **Fire Protection:**

The Pellston Field Office and VFD is located about 6 miles to the north. The Indian River Field Office is located about 15 miles to the southeast.

### **Additional Compartment Information:**

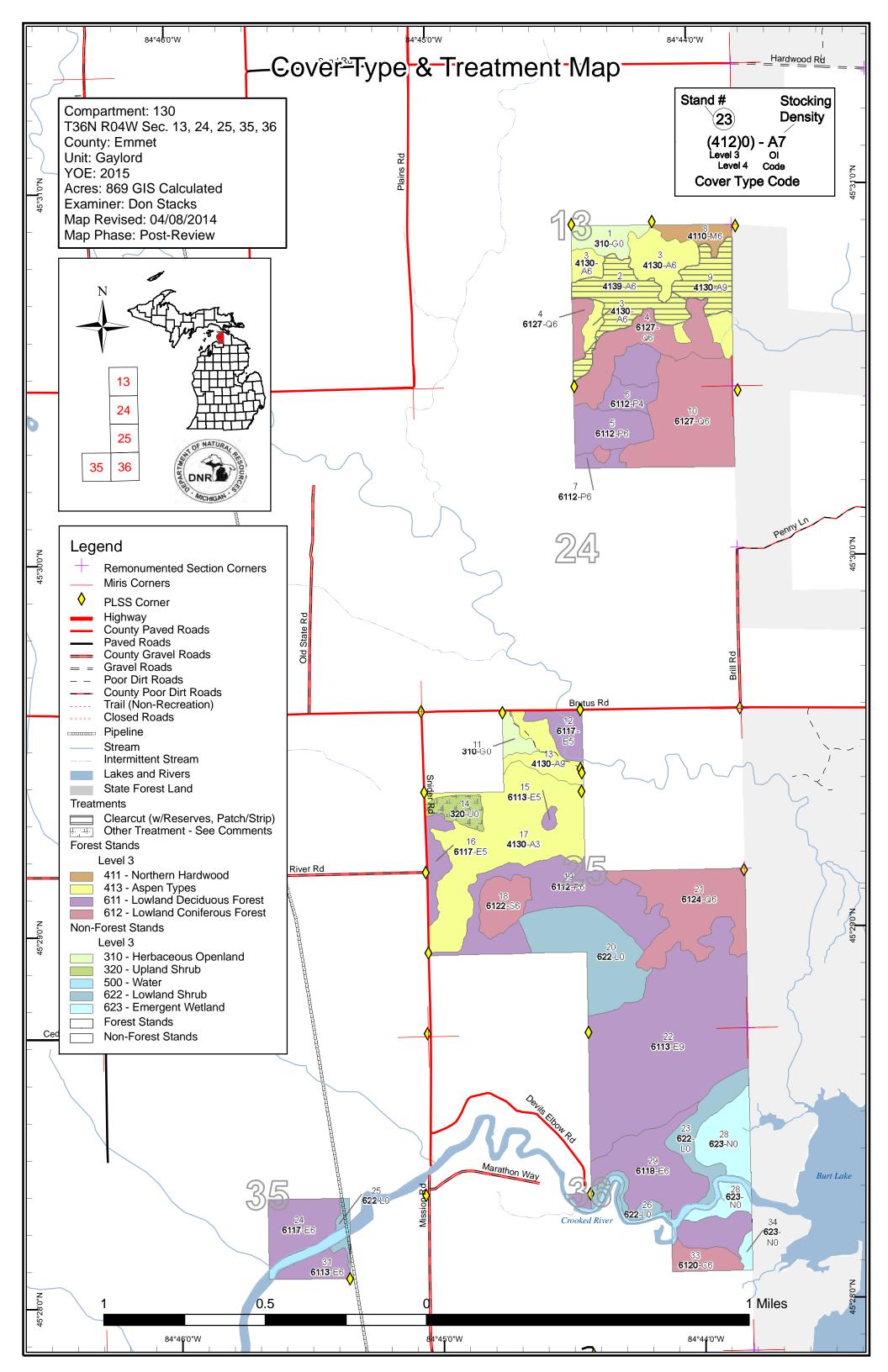
The 40 acre parcel of state-owned land located in section 36, NESW, is in the process of being traded for privately-owned property on the north side of the Crooked River in the NWSE of section 36. There is state-owned river frontage located on the Crooked and Maple rivers. Most of the cover types in the compartment are made up of swamp hardwoods, swamp aspen, and swamp conifers on poorly drained soil.

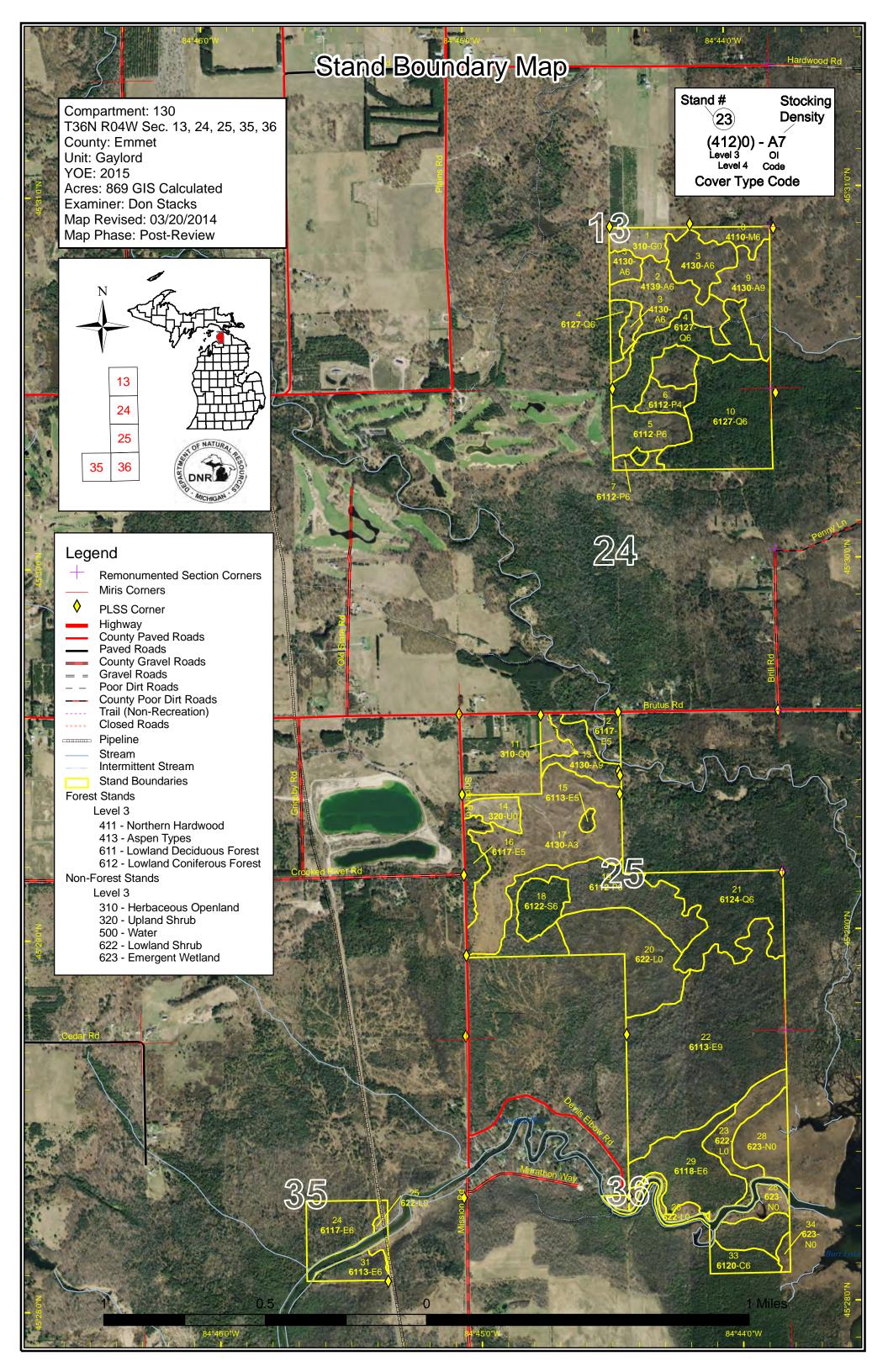
## The following reports from the Inventory are attached:

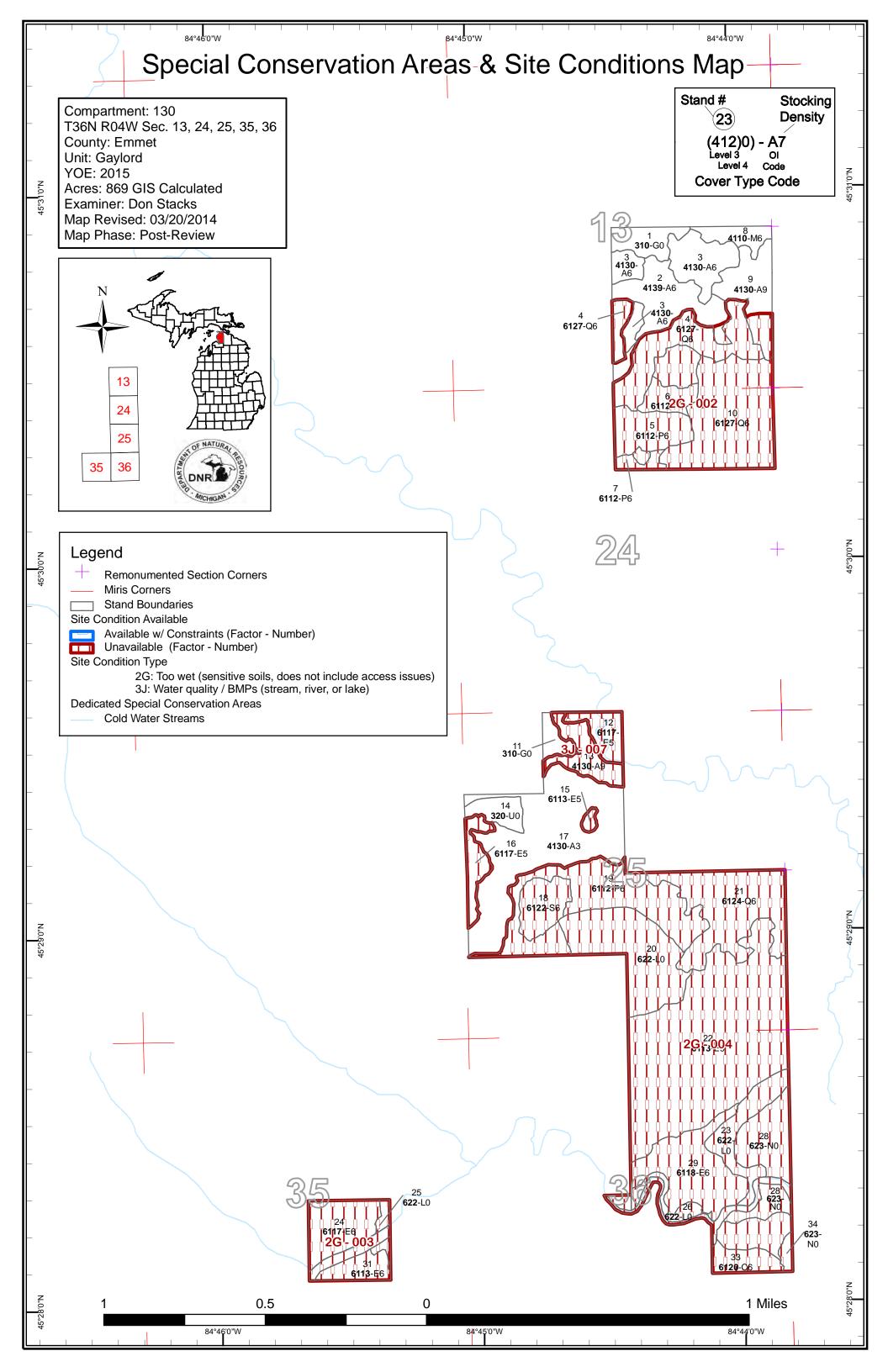
Total Acres by Cover Type and Age Class Cover Type by Harvest Method Proposed Treatments – No Limiting Factors Proposed Treatments – With Limiting Factors Stand Details (Forested and Nonforested) Dedicated and Proposed Special Conservation Areas Site Condition Details

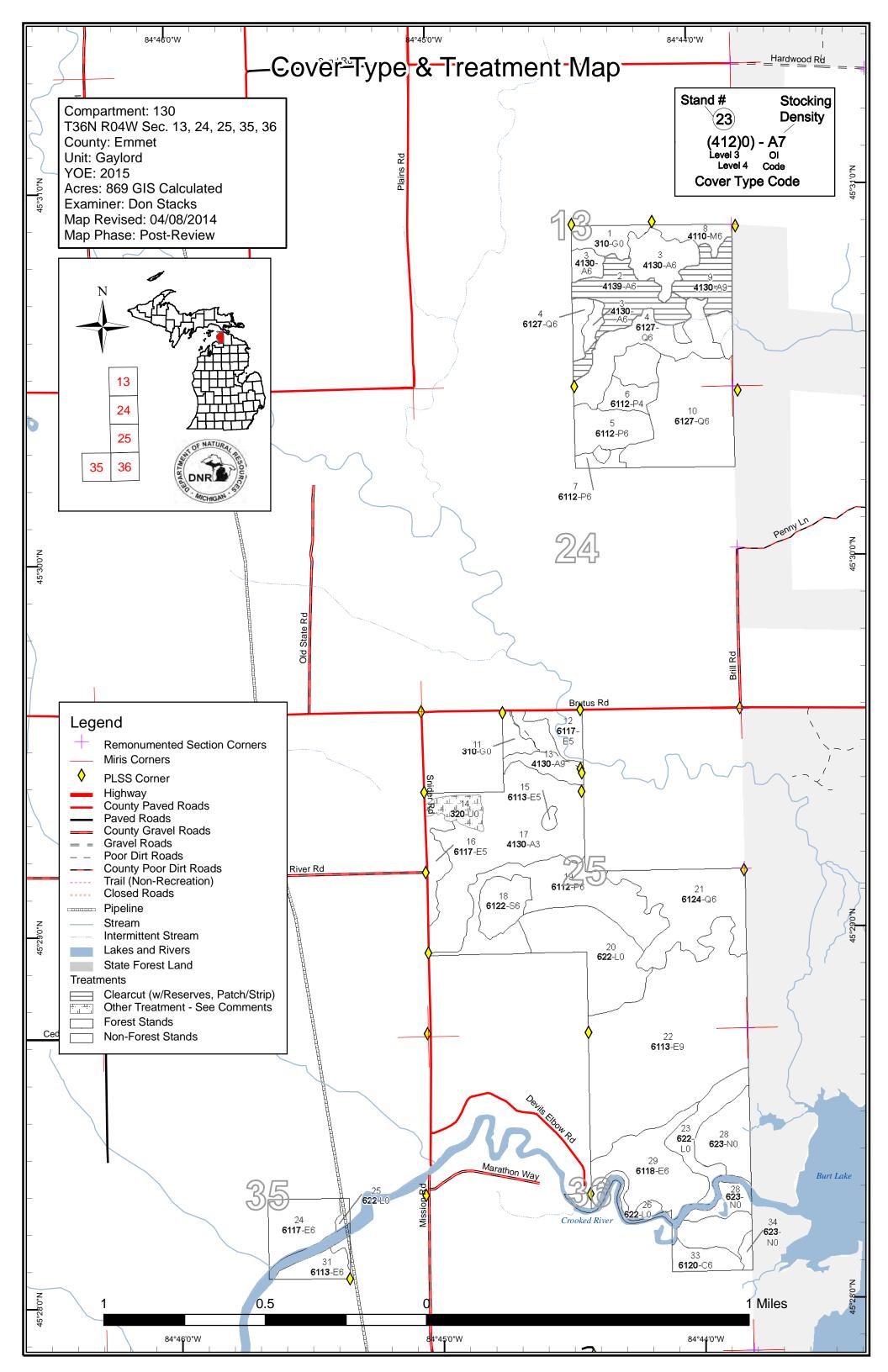
The following information is displayed, where pertinent, on the attached compartment maps:

Base feature information, stand boundaries, cover types, and numbers Proposed treatments Site condition boundaries Details on the road access system









# Report 1 – Total Acres by Cover Type and Age Class

# Gaylord Mgt. Unit Donald Stacks : Examiner

# Compartment 130 Year of Entry 2015

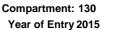


Age Class

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		6.0	<sup>7</sup> 0,70	100 CE 100	30,30	AD AT	<sup>30,30</sup>	60'00'	101	000 000 000	66.70	100 001	120,779	120× 1710	400 × 400	, da
Aspen	81	0	0	28	0	31	22	15	0	0	0	0	0	0	177	
Cedar	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	
Herbaceous Openland	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16	
Lowland Aspen/Balsam Poplar	0	0	0	28	0	4	9	0	53	0	0	0	0	0	93	
Lowland Conifers	0	0	0	0	0	0	0	49	0	0	0	97	0	0	146	
Lowland Deciduous	0	0	0	0	0	0	31	63	154	0	0	0	0	0	248	
Lowland Shrub	73	0	0	0	0	0	0	0	0	0	0	0	0	0	73	
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	15	0	0	0	0	0	15	
Marsh	31	0	0	0	0	0	0	0	0	0	0	0	0	0	31	
Northern Hardwood	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	
Upland Shrub	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
Water	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14	
Total	225	0	0	55	0	35	62	135	222	10	0	97	0	0	841	

DIR DIR DIR		Report 2 – Proposed Treatment Summaries	
Michigan .	Gaylord Mgt. Unit Year of Entry 2015	Compartment 7 Total Compartment Acres: 5	
		Acres by Treatment Type	042
	Commercial Harvest - 47	Tree Planting - 0 Other - 9	
	Habitat Cut - 0	Opening Maintenance - 11	
		Cover Type by Harvest Method	
		Contraction of the second seco	
	Aspen Types	47 0 0 0 0 47	
		Total         47         0         0         0         0         47	

#### Report 3 -- Treatments Prescribed with No Limiting Factor



320 - Upland Shrub Fld. Tr. Bdy. -

Incomplete

t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	52130002-Cut	29.6	4139 - Aspen, Mixed Deciduous	High Density Pole	53	51-80	Harvest	Clearcut	4139 - Aspen, Mixed Deciduous	Fld. Tr. Bdy Incomplete

Prescription Access issues. The state-owned property located to the east and south is very wet and a significant distance from county roads. The best access into this stand would be from the north across a privately owned hayfield during the winter months. If the landowner would agree to let trucks and logging equipment drive over his field from December until March, a harvest could take place during these three months. Harvest would consist of clear cutting everything two inches and larger except the sparse, scattered hemlock, cedar, and white pine. No retention islands would need to be left unharvested because of the narrow shape of the sale area. Adjacent aspen stand to the east would also be harvested at this time. Protect drainages in the south part of the stand. Leave a few drumming logs on site after harvest is complete. WRITTEN PERMISSION HAS BEEN OBTAINED FROM LANDOWNER (SPENCLEY) TO ACCESS HARVEST AREAS THROUGH HIS PROPERTY FOR A WINTER HARVEST.

<u>Other</u> Stand consists of mixed aspen poletimber/sawtimber, red maple poletimber/sawtimber, and sparse, scattered white pine and hemlock poletimber/sawtimber. Mostly higher ground with a few lower areas.

<u>Next</u> M <u>Steps:</u>	Ionitor regen. A mix of aspen and mixed deciduous seedlings will be acceptable.
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#### Proposed

S

# Start Date: 10/01/2014 9 52130009-Cut 17.3 4130 - Aspen High 63 81-110 Harvest Clearcut 4130 - Aspen Fld. Tr. Bdy. -Density Log

Prescription As with aspen stand adjacent to the west, there are access issues with this stand also. Access will need to be through private property to the north, during the winter months. Harvest will take place December - March and consist of cutting everything two inches and larger except hemlock, cedar, and white pine. No unharvested retention islands will be needed because of the relatively small size of the harvest area. Do not include the area in the southernmost portion of the stand for harvest because of several drainages that exist there. Some aspen mortality has already occurred. Leave a few scattered drumming logs on the ground after harvest.

Other Mature mixed aspen sawtimber and red maple poletimber/sawtimber on an upland site. Scattered, sparse white pine and hemlock poletimber/sawtimber also present.

<u>Next</u> Monitor regen. A mix of aspen and mixed deciduous seedlings will be acceptable regen.

#### <u>Steps:</u> Proposed

Start Date: 10/01/2014

 14 NF\_52130014-Other
 8.7
 3205 - Mixed Upland Shrub
 Other
 Unspecified

 Prescription\_ Specs:
 This stand will receive dredged lake/river spoils.
 Specs:
 Vertice

 Other Comments:
 Vertice
 Vertice
 Vertice

 Next
 Vertice
 Vertice
 Vertice

# Steps:

Proposed Start Date: 10/01/2014

> Total Treatment Acreage Proposed: 55.6

S t		Gaylo	Report 4		eatment Site Con	Compartment: 130 Year of Entry 2015	DRR DRR CONTRACTOR			
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
		#Type!	#Type!							
<u>Prescri</u> <u>Specs:</u> <u>Other</u> Comme										
<u>Next</u> Steps:										
Propos Start D										
	<u>g Factor</u>									

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Compartment 130 Year of Entry 2015

### Availability for Management

Total	Acres	Acres	De	omina	nt Site	e Conc	ditions
Acres	Available	Not Available		No	3J	2G	2B
176	155	22	Aspen	81	15	7	74
10		10	Cedar			10	
106	12	93	Lowland Aspen/Balsam Poplar			93	12
146	0	145	Lowland Conifers			145	0
268	0	268	Lowland Deciduous			268	0
15		15	Lowland Spruce/Fir			15	
8	8		Northern Hardwood				8
729	176	553	Total Forested Acres	81	15	538	95
	24%	76%	Relative Percent				
•				_			

\*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

					Other Site Condition	Other Site Condition
)02 <b>i</b>	Not Available	2G: Too wet (sensitive soils, does not include access issues)	144	2B: Unknown if access through adjacent landowner(s) is possible		
Con	nments:					
003 1	Not Available	2G: Too wet (sensitive soils, does not include access issues)	40	2B: Unknown if access through adjacent landowner(s) is possible		
Con	nments:					
)04 <b>M</b>	Not Available	2G: Too wet (sensitive soils, does not include access issues)	454	2B: Unknown if access through adjacent landowner(s) is possible		
Con	nments:					

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Compartment 130 Year of Entry 2015

007	Not Available	3J: Water quality / BMPs	15
		(stream, river, or lake)	

Comments:

Stand buffers Maple River.



#### Report 6 – 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.

SCA Name SCA Category Detail Type Recommendation Acres

Comments



# Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

\* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

Conservatio Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains pl sites of cultural and historical significance that may occu bottomlands. They include thousands of Native American and British outposts, nineteenth century logging camps, the Great Lakes, there are shipwrecks and other remains be identified by Natural heritage data from the State Hist this compartment will be implemented in such a manner the sensitive nature of this information, no further detail a	r upon terrestrial areas and Great Lakes n settlements and burial sites, as well as French mines and homesteads. Beneath the waters of s documenting the maritime trade. Such sites may oric Preservation Office. Proposed treatments in as to maintain the integrity of these sites. Due to
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxyg stocked trout populations and those of other coldwater fir year to year. Coldwater streams in Michigan typically pro contributions of groundwater to their stream flows. Such designated as trout resources by Fisheries Order 210.	sh species (e.g., slimy sculpin) to persist from ovide these conditions due to substantial

S t	Gaylord	Gaylord Mgt. Unit			– Forested	Stands Compartment: 130 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4139 - Aspen, Mixed Deciduous	High Density Pole	31.0	53	51-80	Stand consists of mixed aspen poletimber/sawtimber, red maple poletimber/sawtimber, and sparse, scattered white pine and hemlock poletimber/sawtimber. Mostly higher ground with a few lower areas.
3	4130 - Aspen	High Density Pole	27.6	37	81-110	Young aspen stand just reaching poletimber size from 1977 final harvest.
4	6127 - Lowland Pine	High Density Pole	37.7	116	81-110	Stand consists of a mix of mostly white pine poletimber/sawtimber with lesser amounts of quaking aspen sawlogs, and red maple poletimber/sawtimber, on wet soil. Small amounts of cedar and hemlock poletimber also present.
5	6112 - Lowland Aspen	High Density Pole	27.9	37	51-80	Quaking aspen/red maple poletimber regen from 1977 wildlife habitat cut. Fairly dense stocking. Lower, wetter ground. Sparse amounts of balsam fir and paper birch.
6	6112 - Lowland Aspen	Low Density Pole	8.7	61	1-50	Sparse stand of quaking aspen, red maple, and scattered balsam fir on a very wet site.
7	6112 - Lowland Aspen	High Density Pole	3.8	51	51-80	Small stand of red maple/quaking aspen poletimber, on wet site. Scattered balsam fir and whiite pine poletimber also.
8	4110 - Sugar Maple Association	High Density Pole	8.2	76	51-80	Small stand of northern hardwood, mostly sugar maple poletimber and basswood poletimber/sawlogs. Mixed aspen also found scattered within stand. Stand has areas of low stocking levels.
9	4130 - Aspen	High Density Log	22.4	63	81-110	Mature mixed aspen sawtimber and red maple poletimber/sawtimber on an upland site. Scattered, sparse white pine and hemlock poletimber/sawtimber also present.
10	6127 - Lowland Pine	High Density Pole	59.5	116	111-140	Lowland conifers made mostly of white pine poletimber and sawtimber. Some of the white pine sawlog trees are extra large. Lesser amounts of red pine poletimber/sawtimber, jack pine, black spruce, red maple, hemlock, poletimber, and overmature aspen. Lower ground with wet, poorly drained soild present. White pine and black spruce are consistent in the understory.
12	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	10.6	71	1-50	Stand is a lesser stocked mix of BTA, red maple, balsam fir, and cedar lying mostly within the floodplain of the Maple River, adjacent to Brutus Rd. BTA is falling out of the stand being replaced mostly by balsam fir. Black ash is dead or dying.
13	4130 - Aspen	High Density Log	14.9	73	81-110	Mature BTA with lesser amounts of red maple and balsam fir poletimber. Balsam fir developing in understory,
15	6113 - Lowland Maple	Medium Density Pole	1.6	76	1-50	Small, wet stand of mostly red maple poletimber sitting in a depression with a lowland shrub and tag alder understory. Stand was left out of harvest area during 2008 final harvest. A3 on all sides.

S t	Gaylord	I Mgt. Unit		Report 8	– Forested	Stands Compartment: 130 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	10.1	81	51-80	Low-lying stand of mostly quaking aspen, red maple with lesser amounts or hemlock, balsam fir, and white pine. Several small drainages run through stand into ditch along Snyder Rd. Very wet areas occupied by tag alder.
17	4130 - Aspen	High Density Sapling	80.9	6		High quallity mixed aspen regen, with lesser amounts of red maple and balsam fir saplings present. Most of the stand is on upland soil but the south arm and se edge of the stand are located on lower, wetter soil. Stand was a winter cut only because of these lower areas. Scattered white pine and hemlock poletimber and a few large sawlog trees are located along the west edge of the stand.
18	6122 - Black Spruce	High Density Pole	15.0	83	81-110	Stand is almost all black spruce.
19	6112 - Lowland Aspen	High Density Pole	53.2	84	51-80	Wet stand of overmature quaking aspen and red maple, with lesser amounts of balsam fir. Lots of tag alder in understory with standing water.
21	6124 - Lowland Spruce- Fir	High Density Pole	48.6	71	111-140	Mixed lowland forest on wet site. Balsam fir, black spruce, red maple, cedar, and lesser amounts of overmature quaking aspen
22	6113 - Lowland Maple	High Density Log	142.5	86	81-110	Very wet stand of lowland hardwoods, primarily red maple (sawlogs and poletimber), with lesser amounts of scattered overmature quaking aspen sawlogs, and balsam fir and cedar poletimber. Black ash is found throughout stand but most of this is presently dead or dying. Mostly black ash, tag alder, and red maple in understory.
24	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	21.6	61	51-80	Stand consists of mostly dead and dying black ash on a very wet sight with standing water and numerous drainages adjacent to Crooked River. Red maple poletimber/sawtimber, balsam fir poletimber, and overmature, dying quaking aspen sawtimber also present. Heavy black ash understory.
29	6118 - Lowland Deciduous with Cedar	High Density Pole	50.9	71	81-110	Very wet stand of dying black ash, red maple, and northern white cedar. Diameters are smaller than the E stand adjacent to the north and there is more cedar and tag alder found in this stand. Standing water present throughout stand.
30	6118 - Lowland Deciduous with Cedar	High Density Pole	1.6	84	111-140	Stand consisits of mostly red maple poletimber/sawtimber, with lesser amounts of cedar, balsam poplar, and black ash. Most of the black ash is dead or dying. Very wet, low-lying stand with a lot of standing water present. Stand is also inaccessable because of private ownership.
31	6113 - Lowland Maple	High Density Pole	9.5	61	111-140	Stand consists of mostly red maple poletimber on a very wet site adjacent to the Crooked River. The whole stand has standing water in it. Heavily browsed black ash understory.
33	6120 - Lowland Cedar	High Density Pole	9.8	94		Lowland cedar adjacent to Crooked River and Burt Lake marsh.

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Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	3105 - Mixed Upland Herbaceous	10.9	No	Unspecified	Grass field adjacent to private farm field. Sparse, scattered trees and shrubs present.
11	3102 - Grass	5.6	No	Unspecified	
14	3205 - Mixed Upland Shrub	8.7	No	Unspecified	Stand was an old borrow pit but was rehabed and planted in 2002. Grass and scattered shrubs with encroaching mixed saplings and small poletimber.
20	6229 - Mixed lowland shrub	46.1	No	Unspecified	A mix of tag alder and other lowland shrubs. Very wet site.
23	6229 - Mixed lowland shrub	17.9	No	Unspecified	
25	6229 - Mixed lowland shrub	3.4	No	Unspecified	Low, wet shrubs.
26	622 - Lowland Shrub	5.8	No	Unspecified	
27	50 - Water	14.4	No	Unspecified	Crooked River
28	6233 - Wet Meadow	28.7	No	Unspecified	Marsh adjacent to Crooked River and Burt Lake.
34	6233 - Wet Meadow	2.5	No	Unspecified	