



# Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32027

Entry Year 2016

Acreage: 1490.53620000

County Marquette

Management Area: Dead Horse Moraines

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**Revision Date:** 2014-09-16

**Stand Examiner:** Theresa Sysol

**Legal Description:**

T44N R24W Section 22, 23, 24

**Identified Planning Goals:**

To maintain the health and sustainability of the forest while providing for recreational, wildlife, and fisheries concerns and needs.

**Soil and topography:**

Level swamps and wetland drainages comprised of Carbondale, Tawas and Cathro-Ensley mucks with a small amount of upland flats, primarily Paquin-Finch sands, Crowell-Deford, and Charlevoix-Ensley. Equipment limitations.

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

Mostly State ownership, with one large block of industry lands within Section 22.

**Unique Natural Features:**

No Unique Natural Features known.

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

No Archeological, Historical, or Cultural Features known.

**Special Management Designations or Considerations:**

Potential for calypso orchid and ram's head lady's-slipper in conifer swamps. Some potential for submergent and emergent marsh species in small lake and creeks: auricled tway-blade, autumnal water starwort, alternate-leaved water-milfoil, Farwell's water-milfoil, alga pondweed, small yellow water-lily, American shore-grass, linear-leaved gentian and veiny meadow-rue.

**Watershed and Fisheries Considerations:**

**Wildlife Habitat Considerations:**

Compartment 27 is found within the Dead Horse Moraines Management Area; on Ground Moraines in southeastern Marquette, southwestern Alger, and northwestern Delta Counties. The dominant Natural Communities are poor conifer swamps, mesic northern forests, and dry northern forests. Major forest cover types include Northern Hardwood, Aspen, and Mixed Lowland Conifer. This management area contains a large proportion of hardwood forest which regenerates well partly due to the heavier snow cover and lower deer numbers than the southern portion of this Management Area. The most significant wildlife management issues in the management area are: mast (hard and soft); mature forest (upland deciduous, especially aspen and mixed forest with little understory); course woody debris, early successional forest, and deer wintering complexes.

The following have been identified as featured species for the Dead Horse Moraines Management Area: black bear, pileated woodpecker, ruffed grouse, and white-tailed deer.

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

Sections 22 - 24, T44N-R24W, Marquette County

Surface sediments consist of medium-textured glacial till. The glacial drift thickness varies between 10 and 50 feet. The Ordovician Black River and Prairie du Chien Formations subcrop below the glacial drift. The Black River is quarried for stone in the UP. A gravel pit may be located in Section 23, but potential appears to be limited. Abandoned iron mines are located four miles to the northwest, but economic iron probably has been removed from this area. This State land has not been previously leased for metallic exploration. There is no economic oil and gas production in the UP.

**Vehicle Access:**

State highway M-35 and old M-35 bisect compartment, with a few interior seasonal/closed roads within. Parker Spur, a State maintained poor dirt road, also runs from M-35 to the west and Co Rd R.A. borders the east side of the compartment.

**Survey Needs:**

Private 40 within Section 24 may require final corner to be set.

**Recreational Facilities and Opportunities:**

No established facilities. Main recreation is for hunting.

**Fire Protection:**

Mostly low grounds. Low fire potential.

**Additional Compartment Information:**

Parker Spur requires yearly maintenance - beaver populations continually back up water, plugging culverts, which overflows the already low roadway. Local hunting traffic continually ruts road during wet periods; road needs additional fill, so that grading would be more effective.

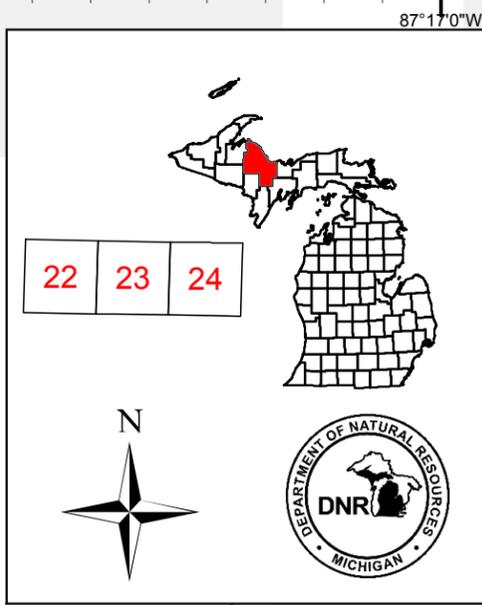
**The following reports from the Inventory are attached:**

- 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**

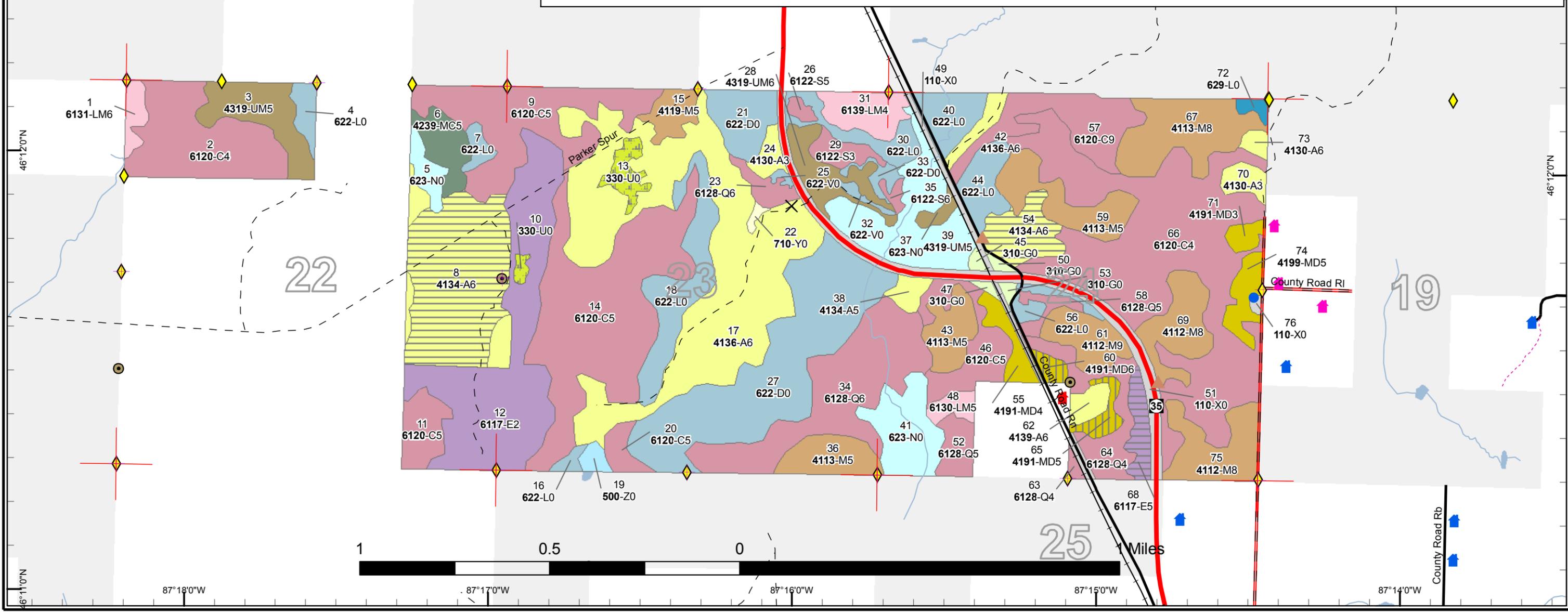
Compartment: 027  
 T44N R24W Sec. 22-24  
 County: Marquette  
 Unit: Gwinn  
 YOE: 2016  
 Acres: 1,491 GIS Calculated  
 Examiner: Theresa Sysol  
 Map Revised: 09/18/2014  
 Map Phase: Pre-Review



# Cover Type & Treatment Map

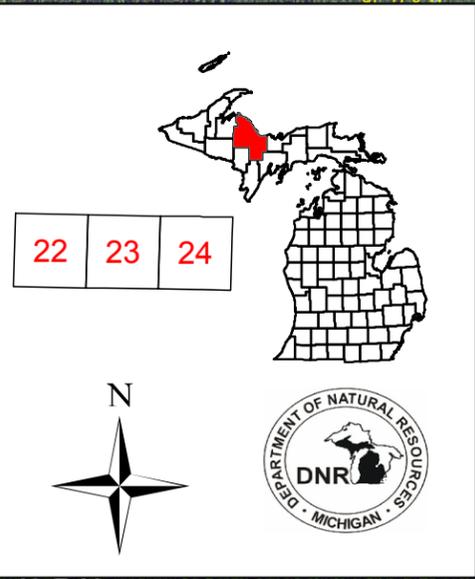
## Legend

- |  |  |   |   |
|--|--|---|---|
| <ul style="list-style-type: none"> <li>✚ Remonumented Section Corners</li> <li>— Miris Corners</li> <li>◆ PLSS Corner</li> <li>● Wood Post</li> <li>◆ Survey Grade</li> <li>— Highway</li> <li>— County Paved Roads</li> <li>— Paved Roads</li> <li>— County Gravel Roads</li> <li>— Gravel Roads</li> <li>— Poor Dirt Roads</li> <li>— County Poor Dirt Roads</li> <li>— Trail (Non-Recreation)</li> <li>□ State Highway</li> </ul> | <ul style="list-style-type: none"> <li>● Cell Tower</li> <li>■ Cabin</li> <li>■ House</li> <li>■ Seasonal Dwelling</li> <li>✕ Gate</li> <li>▲ Berms</li> <li>— Railroads</li> <li>— Stream</li> <li>— Intermittent Stream</li> </ul> | <ul style="list-style-type: none"> <li>■ Lakes and Rivers</li> <li>■ State Forest Land</li> <li>Treatments</li> <li>▨ Clearcut (w/Reserves, Patch/Strip)</li> <li>▨ Shelter Wood (w/Reserves)</li> <li>▨ Other Treatment - See Comments</li> <li>Forest Stands</li> <li>Level 3</li> <li>■ 411 - Northern Hardwood</li> <li>■ 413 - Aspen Types</li> <li>■ 419 - Mixed Upland Deciduous</li> <li>■ 423 - Other Upland Conifers</li> <li>■ 431 - Upland Mixed Forest</li> <li>■ 611 - Lowland Deciduous Forest</li> <li>■ 612 - Lowland Coniferous Forest</li> <li>■ 613 - Lowland Mixed Forest</li> </ul> | <ul style="list-style-type: none"> <li>Non-Forest Stands</li> <li>Level 3</li> <li>■ 110 - Low Intensity Urban</li> <li>■ 310 - Herbaceous Openland</li> <li>■ 330 - Low-Density Trees</li> <li>■ 500 - Water</li> <li>■ 622 - Lowland Shrub</li> <li>■ 623 - Emergent Wetland</li> <li>■ 629 - Mixed non-forested wetland</li> <li>■ 710 - Sand, Soil</li> </ul> |
|--|--|---|---|



Compartment: 027  
 T44N R24W Sec. 22-24  
 County: Marquette  
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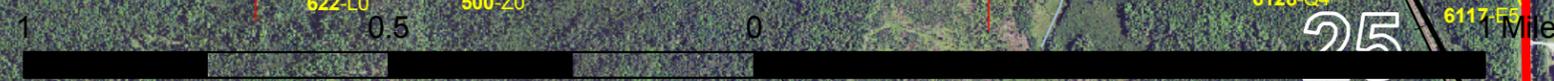
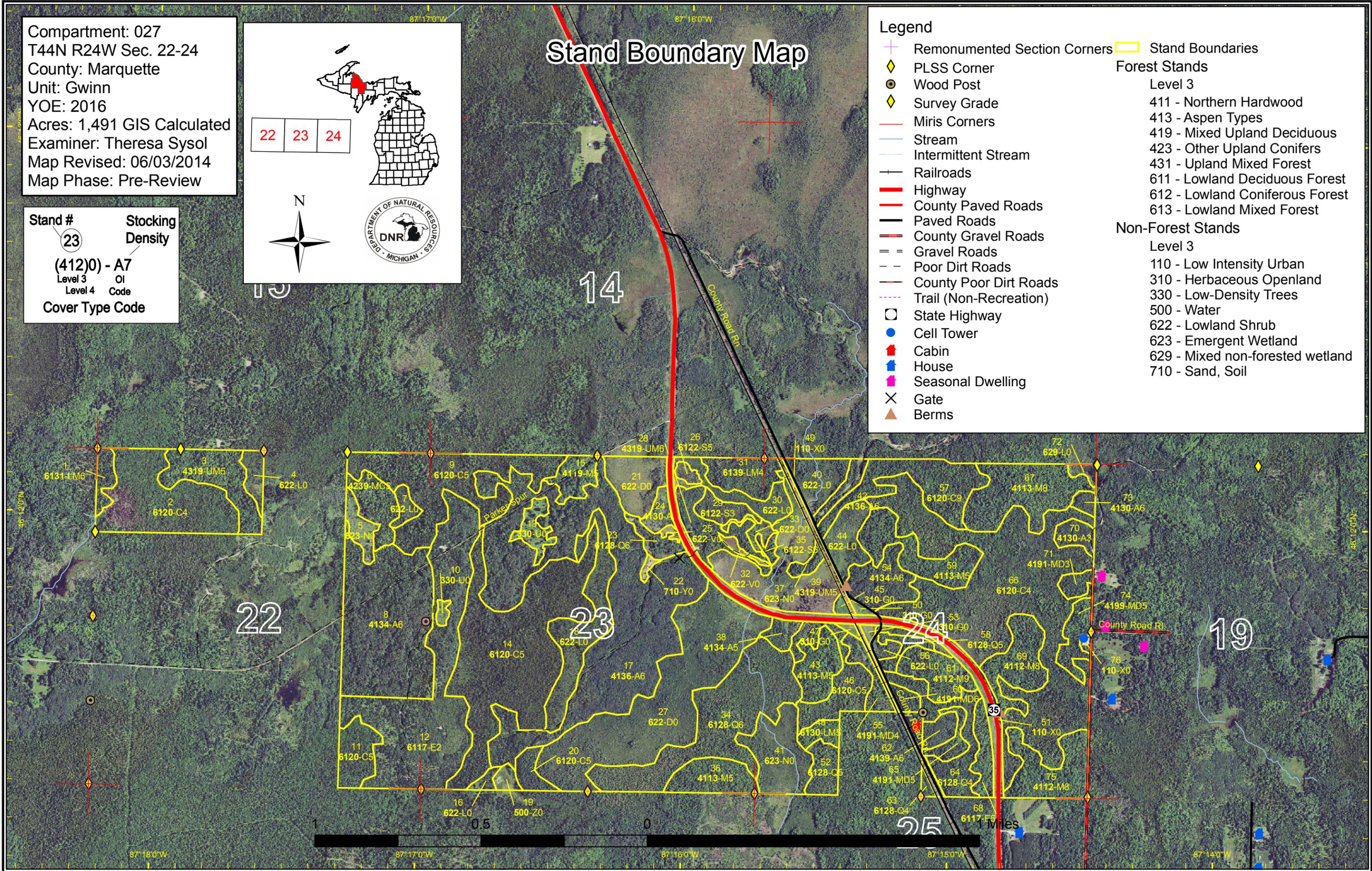
Stand # **23** Stocking Density  
**(412)0** - A7  
 Level 3 OI  
 Level 4 Code  
 Cover Type Code



# Stand Boundary Map

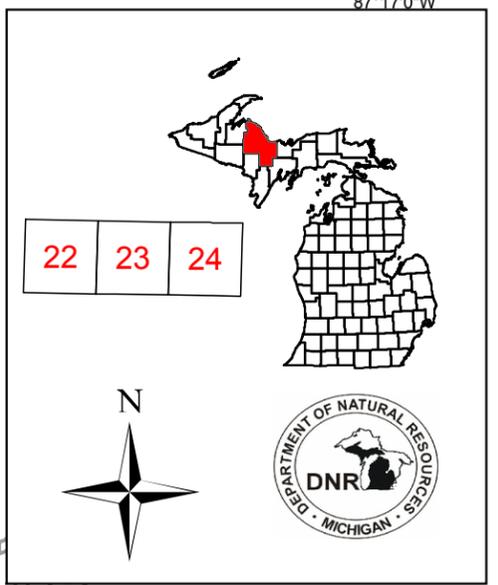
## Legend

- ✚ Remonumented Section Corners
  - ◆ PLSS Corner
  - ⊙ Wood Post
  - ◆ Survey Grade
  - Miris Corners
  - Stream
  - Intermittent Stream
  - Railroads
  - Highway
  - County Paved Roads
  - Paved Roads
  - County Gravel Roads
  - == Gravel Roads
  - - Poor Dirt Roads
  - - County Poor Dirt Roads
  - - - Trail (Non-Recreation)
  - State Highway
  - Cell Tower
  - 🏠 Cabin
  - 🏠 House
  - 🏠 Seasonal Dwelling
  - ✕ Gate
  - ▲ Berms
  - ▭ Stand Boundaries
- ### Forest Stands
- Level 3
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 423 - Other Upland Conifers
  - 431 - Upland Mixed Forest
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
  - 613 - Lowland Mixed Forest
- ### Non-Forest Stands
- Level 3
- 110 - Low Intensity Urban
  - 310 - Herbaceous Openland
  - 330 - Low-Density Trees
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland
  - 629 - Mixed non-forested wetland
  - 710 - Sand, Soil



# Special Conservation Areas & Site Conditions Map

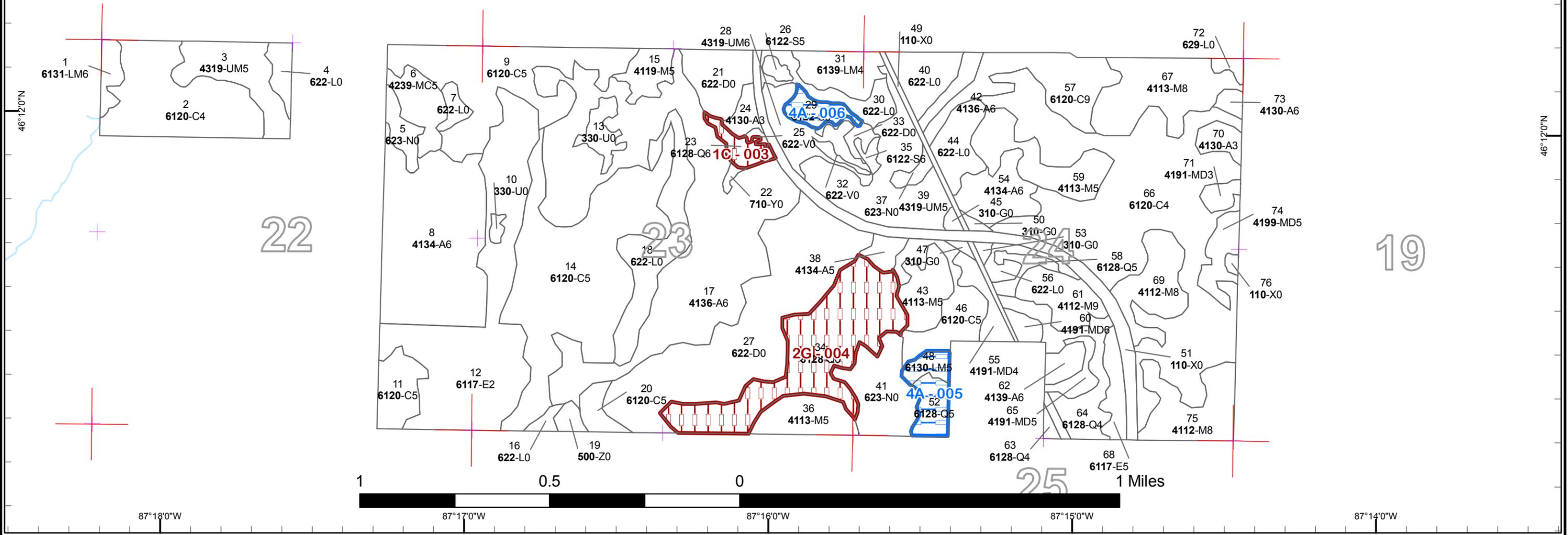
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**Stand #**  
 23  
**Stocking Density**  
 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

**Legend**

- ✚ Remonumented Section Corners
- Miris Corners
- Stand Boundaries
- Site Condition Available
- ▭ Available w/ Constraints (Factor - Number)
- ▭ Unavailable (Factor - Number)
- Site Condition Type
- Available Factors W/ Constraints
- 4A: No merchantable products (see product standards)
- Unavailable Factors
- 1C: Other dept or div proc/practices
- 2G: Too wet (sensitive soils, does not include access issues)
- Special Conservation Areas
- Cold Water Streams



Report 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	5	0	154	5	104	0	0	0	0	0	0	0	0	0	269
Bog	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Cedar	0	0	0	0	0	0	0	0	149	90	54	21	105	0	418
Herbaceous Openland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Low-Density Trees	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Lowland Conifers	0	0	0	0	5	0	0	1	15	0	0	0	62	21	103
Lowland Deciduous	0	0	88	0	0	0	0	0	9	0	0	0	0	0	96
Lowland Mixed Forest	0	0	0	0	0	0	0	0	5	6	0	0	0	14	25
Lowland Shrub	89	0	0	0	0	0	0	0	0	0	0	0	0	0	89
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11
Marsh	70	0	0	0	0	0	0	0	0	0	0	0	0	0	70
Mixed Upland Deciduous	0	4	0	0	4	0	0	0	18	0	0	0	0	5	31
Northern Hardwood	0	0	0	0	0	0	0	0	37	83	0	0	0	34	154
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Treed Bog	111	0	0	0	0	0	0	0	0	0	0	0	0	0	111
Upland Conifers	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13
Upland Mixed Forest	0	16	0	0	0	3	0	0	0	23	0	0	0	0	42
Urban	39	0	0	0	0	0	0	0	0	0	0	0	0	0	39
Water	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
<b>Total</b>	<b>334</b>	<b>20</b>	<b>242</b>	<b>5</b>	<b>113</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>232</b>	<b>225</b>	<b>54</b>	<b>21</b>	<b>167</b>	<b>74</b>	<b>1491</b>



## Report 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit  
Year of Entry 2016

Compartment 027  
Total Compartment Acres: 1,491

### Acres by Treatment Type

Commercial Harvest - 103    Tree Planting - 0    Other - 0  
Habitat Cut - 0    Opening Maintenance - 9

### Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen Types	85	0	0	0	0	0	85
Lowland Deciduous Forest	9	0	0	0	0	0	9
Mixed Upland Deciduous	0	0	0	9	0	0	9
<b>Total</b>	<b>94</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>103</b>



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
8	32027008-Cut	68.0	4134 - Aspen, Spruce/Fir	High Density Pole	40	51-80	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Harvest all aspen, balsam fir, black spruce, and merchantable paper birch. Leave all cedar, hemlock and white pine. Leave submerchantable cherry, paper birch and yellow birch, if present.</p> <p><u>Other Comments:</u> Exclude SE corner of stand from harvest area, which is heavier to lowland conifers (cedar, hemlock, spruce, fir) and smaller timber on north side of road near drainages. Also, leave several retention patches containing mixed species scattered within. Numerous low areas within may require this to be winter cut only sale. Some flooded timber, due to beaver activity.</p> <p><u>Next Steps:</u> Monitor for successful regeneration of aspen and mixed conifers.</p> <p><u>Proposed Start Date:</u> 10/01/2015</p>										
54	32027054-Cut	17.1	4134 - Aspen, Spruce/Fir	High Density Pole	43	51-80	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Cut all merchantable balsam fir, aspen, and most paper birch (leave those with healthy, full crowns). Leave most white spruce - evaluate at time of cruise whether to leave all or do leave tree retention. Leave all white pine, cedar, black cherry.</p> <p><u>Other Comments:</u> Smaller aspen, but in decline, as well as dead/dying balsam fir, spruce noted.</p> <p><u>Next Steps:</u> Monitor for successful regeneration of aspen, spruce/fir. Component of minor species is acceptable.</p> <p><u>Proposed Start Date:</u> 10/01/2015</p>										
60	32027060-Cut	3.6	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	43	51-80	Harvest	Shelter Wood with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Harvest all aspen, balsam fir. Leave white pine, yellow birch, elm, cedar. Cut most paper birch, red maple and white spruce, leaving a few for diversity/seed source. Evaluate at time of sale prep as to method of retention (mark to leave, designate by diameter, etc.)</p> <p><u>Other Comments:</u> No aspen retention, due to small stand size. Found green metal fence post/stake at 1/16th corner location - fairly accurate. May still require survey.</p> <p><u>Next Steps:</u> Monitor for successful regeneration of mixed species.</p> <p><u>Proposed Start Date:</u> 10/01/2015</p>										
65	32027065-Cut	5.4	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	95	81-110	Harvest	Shelter Wood with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<p><u>Prescription Specs:</u> Harvest all aspen, balsam fir. Leave all cedar. Leave better quality red maple (mark leave trees) removing mainly clumps. Leave smaller paper birch and white spruce, but also a few healthy larger white spruce should be left if present.</p> <p><u>Other Comments:</u> Access will be an issue - use old E/W grade off M-35 (through stand 68), which will still need culvert/mats to cross drainage, or access from old M-35 and private lands, with wet grounds to cross also. Combine with stands 60,68 for marketable sale.</p> <p><u>Next Steps:</u> Monitor for successful regeneration of mixed species. Component of under-represented species is acceptable.</p> <p><u>Proposed Start Date:</u> 10/01/2015</p>										

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
68 32027068-Cut	8.8	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	88	51-80	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal

Prescription Harvest all aspen, balsam fir, tamarack. Leave all cedar, yellow birch, black cherry, white pine. Where nicer red and sugar maple stems are present, mark some leave trees/crop trees. Leave some white spruce, paper birch.

Other Comments: Old paint still visible from uncompleted sale. Avoid harvesting through low ground along M-35, leaving retention where appropriate. Harvest with stands 60,65 for marketable sale.

Next Steps: Monitor for successful regeneration of mixed species.

Proposed Start Date: 10/01/2015

10 NF_32027010-NonFor	1.5	3303 - Mixed Low Density Trees				Non-Forest Management	Other - Specify	3303 - Mixed Low Density Trees	Cmpt. Review Proposal
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Prescription Use chainsaws to maintain opening. Planting of hard/soft mast trees/shrubs to benefit feature species.

Specs:

Other Comments:

Next Steps:

Proposed Start Date: Unspecified

13 NF_32027013-NonFor	7.1	3303 - Mixed Low Density Trees				Non-Forest Management	Other - Specify	3301 - Low Density Deciduous Trees	Cmpt. Review Proposal
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Prescription Use chainsaws to maintain opening. Planting of hard/soft mast trees/shrubs to benefit feature species.

Specs:

Other Comments:

Next Steps:

Proposed Start Date: Unspecified

**Total Treatment Acreage Proposed: 111.6**



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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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#Type! #Type!

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Proposed  
Start Date: #Type!

Limiting Factor

**Total Treatment  
Acreage Proposed: 0.0**

## Report 5 – Site Conditions

Gwinn Mgt. Unit  
Theresa Sysol : Examiner

Compartment 027  
Year of Entry 2016

### Availability for Management

Total Acres	Acres		Dominant Site Conditions	Dominant Site Conditions			
	Available	Not Available		No	4A	2G	1C
269	269		Aspen	269			
418	418		Cedar	418			
103	35	68	Lowland Conifers	27	8	62	6
96	96		Lowland Deciduous	96			
25	25		Lowland Mixed Forest	20	5		
11	11		Lowland Spruce/Fir	4	7		
31	31		Mixed Upland Deciduous	31			
154	154		Northern Hardwood	154			
13	13		Upland Conifers	13			
42	42		Upland Mixed Forest	42			
1,161	1,094	68	Total Forested Acres	1,074	20	62	6
	94%	6%	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.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
003	Not Available	1C: Other dept or div proc/practices	6	5B: Maintain for regeneration purposes			
<b>Comments:</b>							
004	Not Available	2G: Too wet (sensitive soils, does not include access issues)	62				
<b>Comments:</b>							
005	Available	4A: No merchantable products (see product standards)	13	2E: Road needed	2B: Unknown if access through adjacent landowner(s) is possible		
<b>Comments:</b> with cedar							

**Report 5 – Site Conditions**

**Gwinn Mgt. Unit**  
**Theresa Sysol : Examiner**

**Compartment 027**  
**Year of Entry 2016**

006	Available	4A: No merchantable products (see product standards)	7
<b>Comments:</b>			



### 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
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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.

ERA = Ecological Reference Area  
HCVA = High Conservation Value Area  
SCA = Special Conservation Area

Conservation Area	Type	Description
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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6131 - Hemlock, White Pine, Maple, Birch	High Density Pole	5.6	90		Small portion cut with adjacent private?
2	6120 - Lowland Cedar	Low Density Pole	46.9	95	1-50	Wet stand - heavy tagalder; drainage within. Small cedar (stunted and stressed, in places), with numerous dead snags, dead yellow birch, blowdown. Scattered areas with ash, maple.
3	4319 - Mixed Upland Forest	Medium Density Pole	22.6	95	81-110	Scattered upland and lowland. Small amount of overmature aspen with red maple, fir, spruce - pockets of cedar and tagalder swales. Trace hemlock with a few dead snags.
6	42390 - Mixed Non-Pine Upland Conifers	Medium Density Pole	13.0	94	51-80	Clump red maple; heavy balsam fir, some which was cut under permit #35/67 - winter, 1968.
8	4134 - Aspen, Spruce/Fir	High Density Pole	77.1	40	51-80	Permit#14/72A - cut Dec, 1973 - Jan, 1975 - removed mainly aspen, fir, spruce, SE corner heavier to lowland conifers (spruce, fir, cedar; hemlock patch). Some dead aspen stems and hypoxylon noted. Smaller timber on lower grounds.
9	6120 - Lowland Cedar	Medium Density Pole	53.6	100	111-140	Some fir cut in the late 60's. Portions of stand water impacted due to beaver activity and Mud Creek drainage; wetter areas with 5-6" dbh cedar and more tagalder.
11	6120 - Lowland Cedar	Medium Density Pole	13.0	96	81-110	Black ash/cedar with areas of thicker cedar concentrations. Uprooting and blowdown noted, in places.
12	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density	87.5	22		"Parker Spur West Block" #010-86 - cut 1990 - 1992. Quite a bit of low ground within, with only higher ridges with upland aspen. South end especially heavier to tagalder, spruce, paper birch and cedar seedlings/saplings. Patchy clone regeneration and residual pockets of spruce/fir.
14	6120 - Lowland Cedar	Medium Density Pole	99.0	122	51-80	High water table impact, in places, due to restricted drainage. Includes some lower stocked areas with tagalder and heavier cedar interior.
15	4119 - Mixed Northern Hardwoods	Medium Density Pole	8.9	95	51-80	"P.S. Block" sale (unit 3) #006-96 - cut Feb., 1999. Lower quality sugar maple; heavy defects to red maple. Trace amount of elm, paper birch, black cherry, cedar.
17	4136 - Aspen, Mixed Conifer	High Density Pole	145.6	26		Transitioning from saplings to poles. "Parker Spur Block" #002-86 - cut Su, 1986 - March, 1988 and Feb, 1990. Mature strip of timber left along M-35 containing red maple, aspen, hemlock, paper birch and white pine. Small portion cut (north side of Parker Spur) as "P.S. Block" #006-96 (unit 2) - Feb., 1998. Some earlier salvage of fir done under permits #042-84-02 (7 acs), #043-84-02 (7 acs), and #023-84-02 (13 acs) all completed in 1984.
20	6120 - Lowland Cedar	Medium Density Pole	6.0	121		



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
23	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	6.2	89		Ridge/swale of hemlock patches with white pine. Some of the white pine is dead; hemlock overall in poor shape (with seams, forked/dead tops). Most aspen, spruce/fir removed under permit #005-06 "M-35 Aspen" in March, 2008. Stand includes small lowland brush drainage.
24	4130 - Aspen	High Density Sapling	4.9	6		Cut under permit #005-06 "M-35 Aspen" in March, 2008. Some residual red maple, spruce/fir as well as lowland aspen within.
26	6122 - Black Spruce	Medium Density Pole	2.1	93		Small island off highway - more of a treed bog type.
28	4319 - Mixed Upland Forest	High Density Pole	16.3	16		M-35 influence. Unit 1 "P.S. Block" sale #006-96 - cut ~1997. Very mixed stand sizes - ridges/swales; older aspen intermixed with younger. A lot of white pine is heavily weeviled. Lower stand portions are heavier to spruce/fir/cedar. Trace amount of scotch pine, red pine.
29	6122 - Black Spruce	High Density Sapling	6.8	93		Thick black spruce saplings with some poles - more of a treed bog type. Trace amount of cedar, white pine and hemlock, mainly along edges.
31	6139 - Mixed Lowland Forest	Low Density Pole	14.5	Uneven Age		Numerous raised island pockets of timber within tagalder swamp - very low quality. Trace black spruce. Plenty of snags, blowdown, uprooting. Natural succession occurring. No crossing across RR tracks.
34	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	61.7	120		Low site index timber; drainage within and high water table.
35	6122 - Black Spruce	High Density Pole	2.1	93	51-80	More of a treed bog type; some blowdown noted.
36	4113 - R.Maple, Conifer	Medium Density Pole	15.2	95		4 acres of stand harvested Winter, 2009 -10 under permit #008-07 "RT Special"(unit 5). Low quality red maple stand with access from the south across private lands. Remainder of stand needed no treatment, grading into lower site.
38	4134 - Aspen, Spruce/Fir	Medium Density Pole	4.7	45	1-50	Part of t. sale #015-84-2 (3 acs) - cut May-June, 1984. Smaller fir was left along highway. Very small piece of high ground. Mix of aspen saplings with residual fir poles, maple, spruce. Some low areas; cattails present.
39	4319 - Mixed Upland Forest	Medium Density Pole	3.0	50	51-80	Very narrow ridge. Previously an aspen stand, but due to location, natural succession and beaver activity is converting stand to more fir. Both aspen and older fir in decline; ~40% dead aspen (mainly quaking) in stand. W. tip drops into black spruce.
42	4136 - Aspen, Mixed Conifer	High Density Pole	5.4	43		Mixed road (old barrow pit) stand cut in 1970. Some older aspen on the fringes.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	4113 - R.Maple, Conifer	Medium Density Pole	13.8	84	51-80	"Little Richard's Block" #007-96 - removed aspen, birch and spruce/fir - 1998. Slightly higher ground contains more maple regeneration; heavier fir elsewhere. Good aspen regen in places. Residual maple stems are extremely low quality, with numerous large diameter wildlife quality trees.
46	6120 - Lowland Cedar	Medium Density Pole	20.7	112	51-80	with cattails
48	6130 - Fir, Aspen, Maple	Medium Density Pole	5.0	87		Slightly higher ground than adjacent.
52	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	8.5	88		
54	4134 - Aspen, Spruce/Fir	High Density Pole	17.1	43	51-80	Permit #16/69A - completed 1970-72. Smaller aspen, but in decline, as well as dead/dying balsam fir, spruce noted. Cherry with black knot. Some lowland aspen. May wish to harvest now.
55	4191 - Mixed Upland Deciduous with Conifer	Low Density Pole	7.8	84	1-50	"M-35 Hardwood" sale #004-06 - cut 2011. Removed aspen, fir and marked hardwoods. Two-aged stand now.
57	6120 - Lowland Cedar	High Density Log	29.8	95	81-110	Cedar with fir/spruce understory. Patches of thicker cedar also. Some fir, spruce removal cuts in the late 60's - early 70's. Mix of tamarack, fir, birch, white pine along old M-35.
58	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	4.8	42	1-50	Permit #9/69 - harvested fall, 1969 - Jan, 1970 and Dec, 1970 - Jan, 1971. Some slight upland ridges with higher aspen, fir component.
59	4113 - R.Maple, Conifer	Medium Density Pole	22.9	95	51-80	"M-35 Hardwood" #004-06 (unit 1) - select cut fall, 2009. Low quality red maple; wet stand, which includes cedar which was left during harvest. Some aspen (retention) along west edge of stand. East portion of stand was never treated, due to heavier cedar component and access.
60	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	3.6	43	51-80	Quite a mixed and variable stand - heavy balsam fir subcanopy component. Older balsam fir is dead/dying, older white pine in decline - dead tops, sparse canopy. Low quality red maple clumps; cherry with black knot. Trace elm, yellow birch noted.
61	4112 - Maple, Beech, Cherry Association	High Density Log	15.3	93	51-80	"M-35 Hardwood" #004-06 (unit 2) - thinned fall, 2009. Lots of top slash yet; some maple sprouts, but still heavy to raspberries, grasses yet. Fringe of conifer left along old red line. Some TSI work (firewood cuttings) under C32-152 in Dec, 1980. Ground cover of club moss, princess pine.
62	4139 - Aspen, Mixed Deciduous	High Density Pole	5.4	33		Sale #002-80 - cut summer, 1980. Transitioning from sapling to pole stand. Trace of yellow birch (sapling), black spruce (pole).
63	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	1.4	78		Small lowland stand against private.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
64	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	20.6	Uneven Age	1-50	A lot of wet ground within; N/S drainage/flow. Old E/W grade cuts through stand with some balsam fir, small amount of black spruce, cedar north of grade cut under #40-74 (spring, 1975) and aspen patch south of grade (along old hwy) cut under permit #2-80. Grasses, cattails.
65	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	5.4	Uneven Age	81-110	Very narrow strip of older timber surrounding younger aspen cut - mainly clump red maple with scattered aspen, fir. Some cedar, some dying white spruce. Trace amount of balsam poplar.
66	6120 - Lowland Cedar	Low Density Pole	148.9	82		Lots of wet, tagalder and cattails ground with low stocking of mixed species.
67	4113 - R.Maple, Conifer	Medium Density Log	33.7	Uneven Age	51-80	"Batter's Corner Block" #008-96 (unit 1 - 3) - combined select and shelterwood cut - Dec., 1997. Rolling terrain with lower grounds heavier to fir/aspen. Fairly mixed age classes. Left all cedar, white pine and hemlock.
68	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	8.8	88	51-80	Mix of slightly upland and lowland grounds along highway. Older, overmature aspen with low quality hardwoods, balsam fir. Trace amount of cherry. Portion of stand was previously set-up and sold under permit #004-06, but was never cut, due to limited access and weather constraints.
69	4112 - Maple, Beech, Cherry Association	Medium Density Log	20.8	95	81-110	"In Between Block" #009-96 - cut Feb - March, 1998. Shelterwood and select cut. Trace amount of white spruce, yellow birch, elm. Numerous large diameter, wildlife quality, maple present. Pockets of balsam poplar in lower, shelterwood cut areas.
70	4130 - Aspen	High Density Sapling	5.7	27		T. sale #030-85 - cut 1986,87. Trace amount of paper birch, mainly along roadway.
71	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	4.0	17		Slightly upland knob cut under permit #009-96 (unit 4) "In Between Block" sale - Oct.-Nov. 1997. Scattered residual cherry, red maple poles (6-7" dbh).
73	4130 - Aspen	High Density Pole	2.7	27		T. sale #030-85 - cut 1986,87. A little more open-grown aspen clone patches/clumps with cherry/fir interspersed. Cherry with black knot; hypoxylon in aspen - some breakage and blowdown noted. Trace white pine along road edge.
74	4199 - Other Mixed Upland Deciduous	Medium Density Pole	9.8	87	51-80	"In Between Block" #009-96 (unit 5, 10) - shelterwood and select cut Oct., 1997. Trace black ash along lower grounds.
75	4112 - Maple, Beech, Cherry Association	Medium Density Log	23.5	88	81-110	"In Between Block" #009-96 (unit 7, 8) - shelterwood and select cut Sept, 1997. Also cut under permit #018-83-02 - some hwd and all fir cut - fall, 1983 - spring, 1984. Interior of stand is more log-sized maple with little maple regeneration noted (heavy browse on regen <3'); trace conifers. Edges transition to pole-sized maple with more conifers, including hemlock patches, fir and cedar. Also includes small tagalder swale.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	6220 - Alder/willow	5.7	No	Unspecified	
5	6239 - Mixed Emergent Wetland	6.6	No	Unspecified	
7	6220 - Alder/willow	3.7	No	Unspecified	
10	3303 - Mixed Low Density Trees	1.5	Yes	Low	Small knob - more of a natural opening now.
13	3303 - Mixed Low Density Trees	7.1	Yes	Low	Girdled tamarack saplings on edges. Multiple clumps of spruce/fir; aspone clones. W32-455: 70# spike 6/26/1996.
16	6220 - Alder/willow	2.2	No	Unspecified	
18	6220 - Alder/willow	30.3	No	Unspecified	
19	50 - Water	3.0	No	Unspecified	
21	6224 - Treed Bog	16.4	No	Unspecified	
22	710 - Sand, Soil	1.2	Yes	Low	Burrow pit
25	6225 - Bog	1.0	No	Unspecified	lowland depression
27	6224 - Treed Bog	91.5	No	Unspecified	
30	6229 - Mixed lowland shrub	11.9	No	Unspecified	snags and dead timber within
32	6225 - Bog	1.8	No	Unspecified	
33	6224 - Treed Bog	3.6	No	Low	some aspen, red maple seedlings/saplings
37	6230 - Cattail	38.9	No	Unspecified	Dead snags (cedar) within, as well as small islands of timber (aspen, spruce/fir). Contains pond, creek
40	6220 - Alder/willow	13.6	No	Unspecified	contains unnamed drainage/creek which flows under RR tracks (culvert)
41	6239 - Mixed Emergent Wetland	24.2	No	Unspecified	drainage/lowland brush



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
44	6220 - Alder/willow	13.4	No	Unspecified	
45	3104 - Degraded	1.3	No	Unspecified	
47	3104 - Degraded	1.0	No	Unspecified	
49	11 - Low Intensity Urban	8.0	No	Unspecified	Old highway.
50	3104 - Degraded	1.2	No	Unspecified	
51	11 - Low Intensity Urban	29.6	No	Unspecified	M-35 and R.O.W.
53	3104 - Degraded	1.1	No	Unspecified	
56	6220 - Alder/willow	5.7	No	Unspecified	Some scattered timber.
72	629 - Mixed non-forested wetland	2.3	No	Unspecified	
76	11 - Low Intensity Urban	1.1	No	Unspecified	cell tower site and surrounding edges