



**Gwinn Forest Management Unit  
Compartment Review Presentation  
Compartment 289      Entry Year: 2013  
Compartment Acreage: 1, 438      County: Marquette**

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**Revision Date:** 08/18/2011

**Stand Examiner:** Dean Wilson

**Legal Description:** T47N R23W Sections 23, 24, and 26.

**RMU (if applicable):** Sand River Lake Plain Management Area

**Management Goals:** Mixed use.

**Soil and Topography:** Landform consists of bedrock controlled till plains and moraines and glacial drainage ways. Soils primarily are loams underlain by sandstone, poorly drained loamy soils, and poorly drained organics. Topography is predominately level with some areas that are lightly to moderately sloping.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Mostly surrounded by State land; however, there are a few adjacent small private ownerships. Land use is primarily forest production and passive recreation.

**Unique, Natural Features:** Contains the Sand River and a number of small streams.

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

**Special Management Designations or Considerations:** Improvement and protection of the northern hardwood resource. Best management practices and the protection of the watercourses.

**Watershed and Fisheries Considerations:** The Sand River is a State designated cold water trout stream. Management activities will provide for an adequate vegetation buffer and a forest type that does not encourage beaver activity.

**Wildlife Habitat Considerations:** Maintain or increase hemlock cover-type. Special Conservation Areas along creeks and tributaries maintain conifer to provide snow intercept, cover, mature forest structure and protection for wildlife corridors and riparian areas including vernal channels. Diversity in habitat types offers a variety of hunting and wildlife viewing opportunities. Large hemlock stands are regenerating well and have taken on some old growth characteristics which provide thermal cover, coarse woody debris, and super-canopy trees. Identify and implement strategies that increase mesic conifer such as white pine and hemlock.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of thin to discontinuous glacial till over bedrock, probably part of an end moraine of coarse-textured till. The glacial drift thickness varies between 10 and 50 feet. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. There is not a current economic use for the Jacobsville, but it was previously used as a building stone. Gravel pits are located to the north and south of the compartment, and potential appears to be good. This compartment has never been leased for metallic exploration. There is no economic oil and gas production in the UP.

**Vehicle Access:** Good to and throughout the compartment.

**Survey Needs:** None.

**Recreational Facilities and Opportunities:** This area is primarily used for passive recreation. There are no developed recreational opportunities.

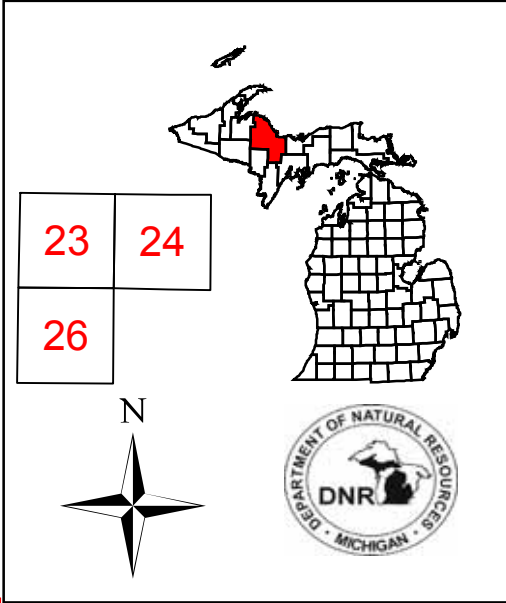
**Fire Protection:** Fire risk is low in this area.

**Additional Compartment Information:**

- **The following reports from the Inventory are attached:**
  - ◆ **Total Acres by Cover Type and Age Class**
  - ◆ **Proposed Treatment Summary**
  - ◆ **Proposed Treatments – No Limiting Factors**
  - ◆ **Proposed Treatments – With Limiting Factors**
  - ◆ **Stand Details (Forested and Nonforested)**
  - ◆ **Dedicated and Proposed Special Conservation Areas**
  
- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - ◆ **Base feature information, stand boundaries, cover types, and numbers**
  - ◆ **Proposed treatments**
  - ◆ **Details on the road access system**
  
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# Cover Type & Treatment Map

Compartment 289  
 T47N, R23W, Sec. 23, 24, 26  
 County: Marquette  
 Unit: Gwinn  
 YOE: 2013  
 Acres: 1,438 GIS Calculated  
 Stand Examiner: Dean Wilson  
 Map Revised: 8/23/2011  
 Map Phase: Pre-Review



**Stand #**  
 23  
**Stocking Density**  
 (4120) - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

### Legend

- Miris Corners
- Remonumented Section Corners
- Paved Roads
- Hiking Trail
- Hiking Trails
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

### Treatments

- Seed Tree (w/Reserves)
- Selection (Group, Single Tree)

### Forest Stands

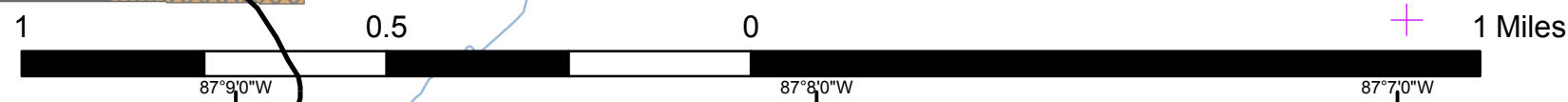
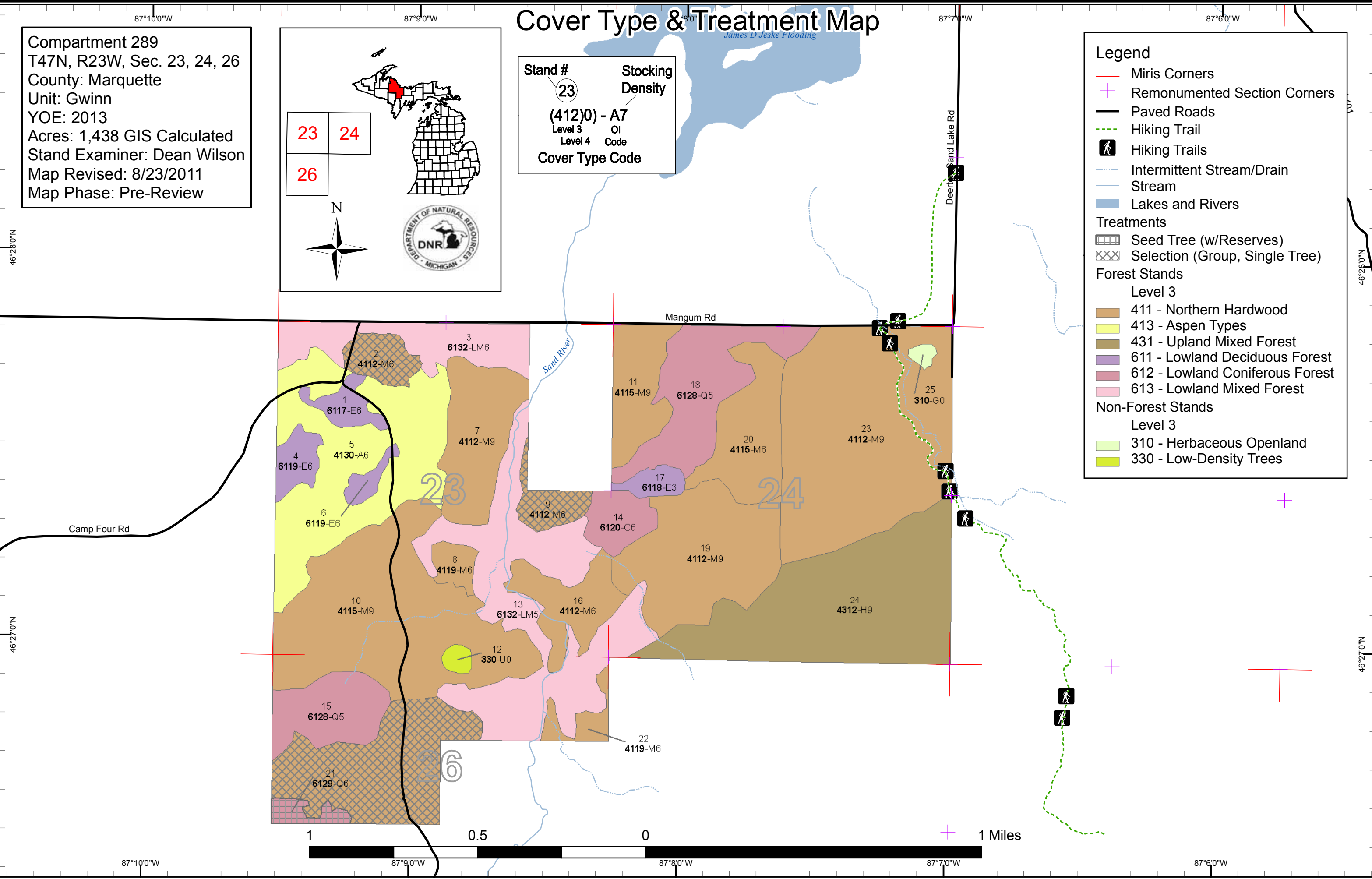
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

### Non-Forest Stands

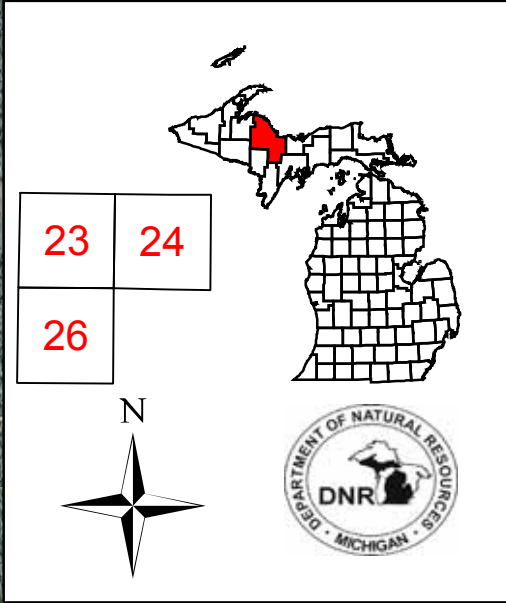
Level 3

- 310 - Herbaceous Openland
- 330 - Low-Density Trees



# Stand Boundary Map

Compartment 289  
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**Legend**

- Miris Corners
- + Remonumented Section Corners
- Paved Roads
- - - Hiking Trail
- 🚶 Hiking Trails
- ▭ Stand Boundaries

**Forest Stands**

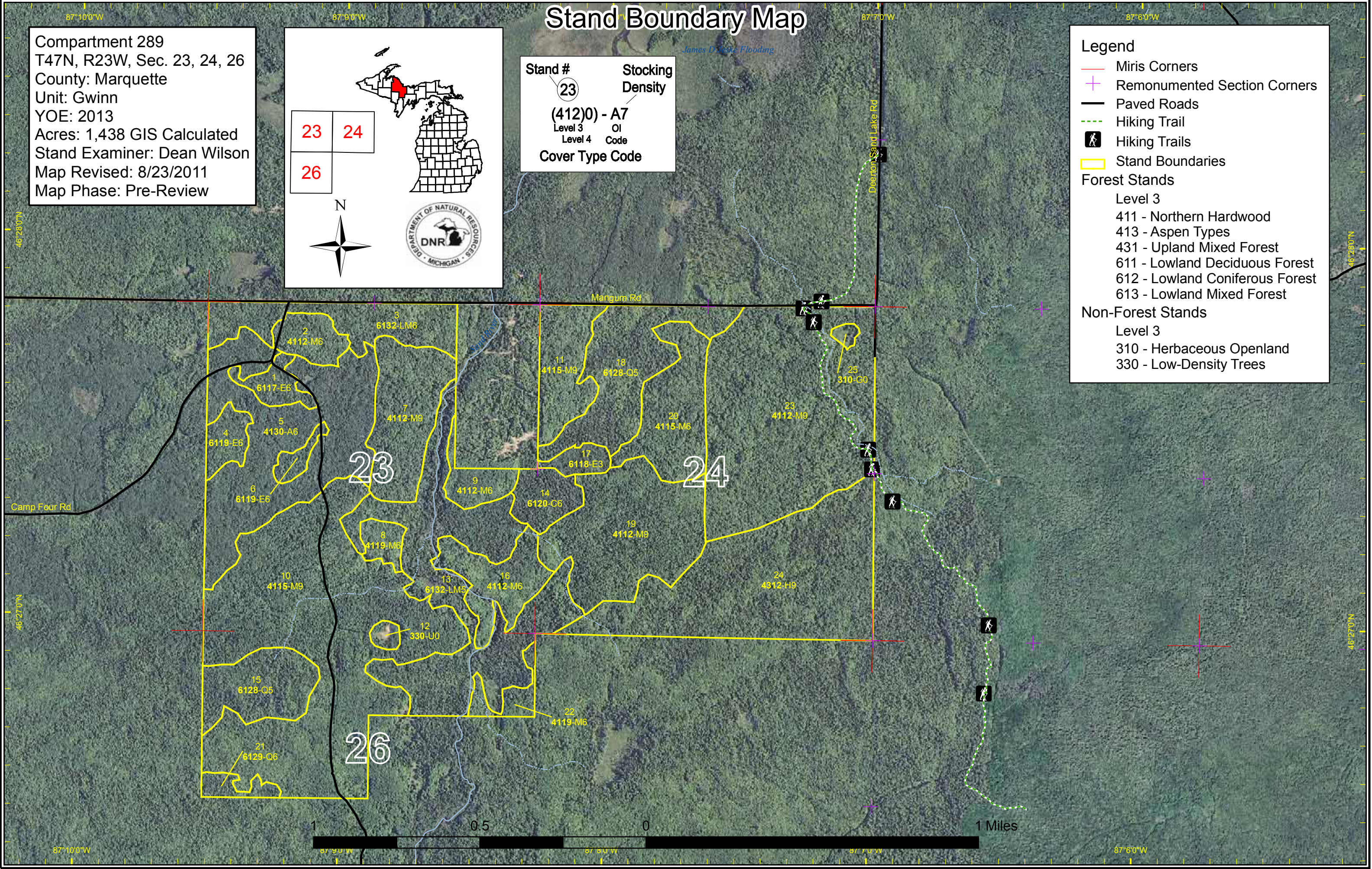
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**Non-Forest Stands**

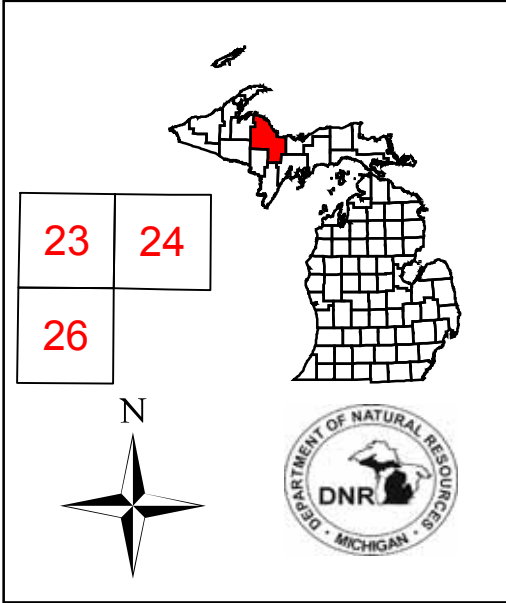
Level 3

- 310 - Herbaceous Openland
- 330 - Low-Density Trees



# Dedicated & Proposed Special Conservation Area Map

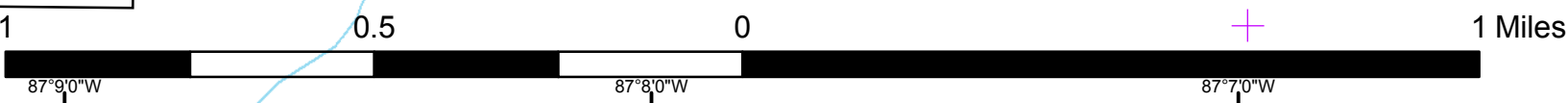
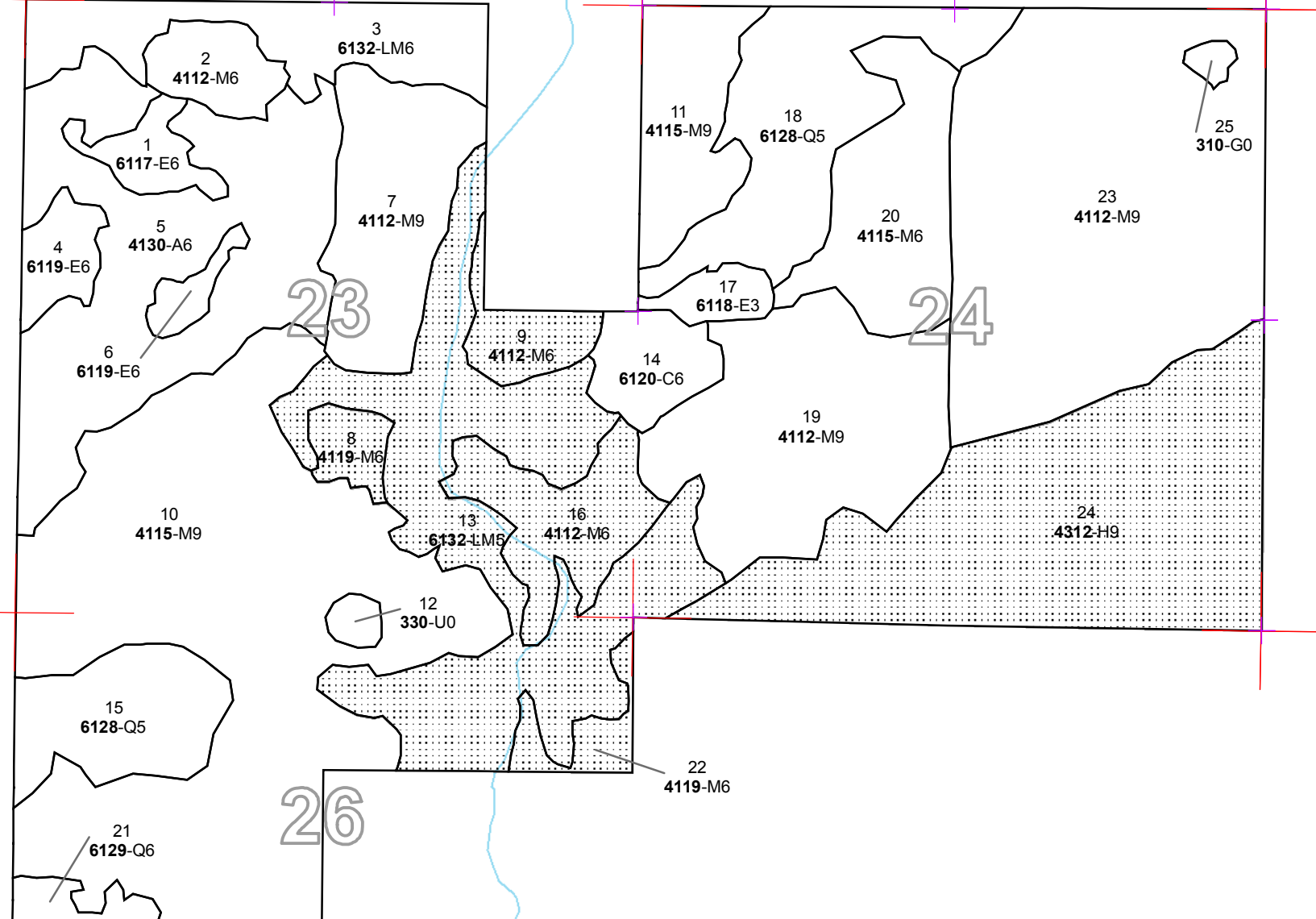
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**Stand #**  
 23  
**Stocking Density**  
 (4120) - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

**Legend**

- Miris Corners
- ▨ SCA - Special Conservation Area
- ▨ Dedicated Special Conservation Areas
- Cold Water Streams
- ▭ Stand Boundaries
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3
- 310 - Herbaceous Openland
- 330 - Low-Density Trees



46°28'0"N

46°27'0"N

46°28'0"N

46°27'0"N

87°10'0"W

87°9'0"W

87°8'0"W

87°7'0"W

87°6'0"W

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



	Age Class														Total	
	Non-Forested	1-9	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	0	0	0	0	130	0	0	0	0	0	0	0	0	0	0	130
Cedar	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	20
Hemlock	0	0	0	0	0	0	0	0	0	160	0	0	0	0	0	160
Herbaceous Openland	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Low-Density Trees	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Lowland Conifers	0	0	0	0	0	0	0	0	0	108	8	0	0	0	0	116
Lowland Deciduous	0	0	0	0	41	0	0	0	0	0	0	0	0	0	0	41
Lowland Mixed Forest	0	0	0	0	0	0	0	0	48	137	0	0	0	0	0	186
Northern Hardwood	0	0	0	0	0	0	0	0	0	236	544	0	0	0	0	780
<b>Total</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>171</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>48</b>	<b>660</b>	<b>552</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1438</b>



## Table 2 – Proposed Treatment Summaries

**Gwinn Mgt. Unit**  
**Year of Entry 2013**

**Compartment 289**  
**Total Compartment Acres: 1438**

### Acres by Treatment Type

Commercial Harvest - 130	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

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Lowland Conifers	0	0	8	0	0	0	8	
Northern Hardwood	0	122	0	0	0	0	122	
<b>Total</b>	<b>0</b>	<b>122</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>130</b>	



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	32289002-Cut	17.0	4112 - Maple, Beech, Cherry Association	High Density Pole	89	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Individual tree selection to reduce BA to between 70 and 90 sq. ft..

Specs:

Other Comments: Retain all hemlock, cedar, and any beech found. Maintain a spruce-fir component. Where thinning will not improve tree health leave black cherry.

Next Steps:

9	32289009-Cut	15.1	4112 - Maple, Beech, Cherry Association	High Density Pole	81	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Selectively mark trees to be harvested.

Specs:

Other Comments: Retain large remnant cull trees for wildlife.

Next Steps:

Check regeneration per work instructions.

Next Steps:

10	32289010-Cut	89.6	4115 - Y.Birch, Hemlock NH	High Density Log	91	Harvest	Single Tree Selection	4115 - Y.Birch, Hemlock NH	Cmpt. Review Proposal
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Prescription Individual tree selection in the quality hardwood areas maintaining a BA of 70 to 90 sq. ft.. Group selection and partial cutting of all maple,

Specs: aspen, and spruce-fir in poor quality red maple areas.

Other Comments: Retain all hemlock, cedar, beech, yellow birch, and black cherry. Maintain a paper birch component.

Next Steps:

Next Steps:

21	32289021-Cut	7.9	6129 - Mixed Coniferous Lowland Forest	High Density Pole	90	Harvest	Seed Tree with Reserves	6129 - Mixed Coniferous Lowland Forest	Cmpt. Review Proposal
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Prescription Harvest all spruce, balsam fir, maple, and white birch/aspen if any.

Specs:

Other Comments: Retain all hemlock, cedar, white pine, and yellow birch. Include with the harvest of stand 10.

Next Steps:

Check regeneration next entry.

Next Steps:

**Total Treatment  
Acreage Proposed: 129.6**

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Limiting Factor and No  
Treatment Reason

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**Total Treatment  
Acreage Proposed: 0**

Out of YOE -- Treatments  
Prescribed with No Limiting Factor

Year of Entry: 2013



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription  
Specs:

Other  
Comments:

Next  
Steps:

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**Total Treatment  
Acreage Proposed: 0**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	12.6	39	51-80	Cut in 1972. Left a mixed residual.
2	4112 - Maple, Beech, Cherry Association	High Density Pole	17.0	89	111-140	Thinned in 1996: TS#22-93.
3	6132 - Mixed Lowland Forest with Cedar	High Density Pole	48.4	76	81-110	Contains upland knolls and ridges.
4	6119 - Mixed Lowland Deciduous Forest	High Density Pole	13.1	39	1-50	Cut in 1972. Left a mixed residual. Contains upland knolls and ridges.
5	4130 - Aspen	High Density Pole	129.7	39	1-50	Harvested in 1972: TS#12170A
6	6119 - Mixed Lowland Deciduous Forest	High Density Pole	6.6	39	51-80	Harvested in 1996: TS#12170A
7	4112 - Maple, Beech, Cherry Association	High Density Log	55.8	94	81-110	Selectively cut in 1996: TS#22-93.
8	4119 - Mixed Northern Hardwoods	High Density Pole	9.7	89	81-110	Actually part of stand 10. Typical second growth hardwoods.
9	4112 - Maple, Beech, Cherry Association	High Density Pole	15.1	81	111-140	Stand ranges from low quality red maple to high quality sugar maple where the land is elevated. Gravel pit and other excavation borders stand to the north.
10	4115 - Y.Birch, Hemlock NH	High Density Log	255.3	91	81-110	Thinned in 1975. North 1/2 selectively cut in 2006: TS#101-03-01. Post harvest wildlife division underplanted hemlock.
11	4115 - Y.Birch, Hemlock NH	High Density Log	37.5	95	81-110	Harvested in 1978: TS#16-76A.
13	6132 - Mixed Lowland Forest with Cedar	Medium Density Pole	137.4	89	81-110	SCA = Flood plain and other bottom lands, drainages, and seeps associated with the Sand River. Wide ranging forest cover with lowland brush and beaver meadow inclusions.
14	6120 - Lowland Cedar	High Density Pole	19.6	86	141-170	Combine with stands 9, and 11 to create a timber sale next entry.
15	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	40.4	89	81-110	Partially cut...hardwoods removed.
16	4112 - Maple, Beech, Cherry Association	High Density Pole	35.9	91	81-110	Cut in the 1960s. Contains wet pocket inclusions.
17	6118 - Lowland Deciduous with Cedar	High Density Sapling	9.1	33	1-50	Harvested in 1978.
18	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	67.7	89	51-80	Cut in the 1970s. Contains upland knolls and ridges.

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Gwinn Mgt. Unit

## 5 – Forested Stands

Compartment: 289  
Year of Entry: 2013

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	4112 - Maple, Beech, Cherry Association	High Density Log	97.0	94	51-80	Selectively harvested in 2007: TS#102-03-01.
20	4115 - Y.Birch, Hemlock NH	High Density Pole	51.7	91	81-110	Selectively cut in 1978: TS#16-76A. Contains wet pockets, drains, and sawlog inclusions.
21	6129 - Mixed Coniferous Lowland Forest	High Density Pole	7.9	90	111-140	Contains upland knolls and ridges.
22	4119 - Mixed Northern Hardwoods	High Density Pole	10.7	91	81-110	SCA = Sand River riparian corridor.
23	4112 - Maple, Beech, Cherry Association	High Density Log	193.8	89	81-110	Selectively cut in 1999: TS#23-93-01.
24	4312 - Hemlock, Mixed Deciduous	High Density Log	159.6	89	111-140	SCA = Part of a larger winter deer yard complex. Contains wet pockets and drains.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
12	3303 - Mixed Low Density Trees	4.0	Yes	Low (NonForested)	Gravel pit created in 1993.
25	3102 - Grass	2.7	No	Unspecified	Tordon opening created in 1975.



## 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	Unique Site - SCA	32289008	9.7	SCA-Wildlife corridor and old growth stand along the Sand River. No treatment is recommended to allow natural processes to occur.
9	Unique Site - SCA	32289009	15.1	Wildlife corridor along the Sand River.
13	Unique Site - SCA	32289013	137.4	SCA = Bottom lands, drainages and seeps associated with the Sand River. Encompasses the river's riparian zone.
16	Unique Site - SCA	32289016	35.9	SCA-Wildlife corridor along the Sand River. Stand contains old growth characteristics and no harvest is recommended to allow natural processes to occur.
22	Unique Site - SCA	32289022	10.7	SCA = Sand River riparian area and wildlife corridor. Old growth stand. No treatment is recommended to allow natural processes to occur.
24	Unique Site - SCA	32289024	159.6	SCA = Part of a large winter deer yard complex. Old Growth Stand with large hemlock and coarse woody debris. No treatment is recommended in this stand to allow natural processes to occur.



## 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
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.