



**Gwinn Forest Management Unit
Compartment Review Presentation
Compartment 292 Entry Year: 2014
Compartment Acreage: 888 County: Marquette**

Revision Date: 8/20/12

Stand Examiner: Dean Wilson

Legal Description: T46N-R23W, Sections 2 and 3

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

Management Goals: Habitat and Vegetative

Soil and Topography: Soils are predominately poorly drained rocky loams to moderately drained loamy sands. Topography is level to slightly undulating.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Various ownerships surround this compartment including Shelter Bay Forests, Federal (USFS), and smaller non-industrial private tracts. Predominate land use is for forest production and recreation.

Unique, Natural Features: No known MNFI concerns. Potential for red-shouldered hawk in several northern hardwood stands as well as mature aspen. Potential for goshawk in hardwoods or in hemlock stands.

Archeological, Historical, and Cultural Features: None identified with HAL. This compartment is crisscrossed with old logging railroad grades from the early 1900s.

Special Management Designations or Considerations: Maintain the old growth nature of the mature northern hardwood-hemlock areas.

Watershed and Fisheries Considerations: The Sand River flows through section 2. Numerous drains and seeps feed the Sand River here as the watershed generally starts in this vicinity. Avoid and or minimize disturbances along the Sand River and its associated drains.

Wildlife Habitat Considerations: We will convert several northern hardwood stands to a spruce-fir management objective. Harvest the remaining mature aspen stand to maintain this valuable habitat type. Featured species include American marten, blackburnian warbler, and red-shouldered hawk.

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. The Jacobsville was previously used as a building stone. Gravel pits are located to the north and west 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: Poorly established and limited to winter when ground can be frozen.

Survey Needs: None at present.

Recreational Facilities and Opportunities: Is limited to passive recreation due to the nature of the land form in this area.

Fire Protection: Low risk area-no special considerations needed.

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**

Compartment: 292
 T46N R23W Sec. 1, 2, 3
 T47N R23W Sec. 34, 35, 36
 County: Marquette
 Unit: Gwinn
 YOY: 2014
 Acres: 888 GIS Calculated
 Examiner: Dean Wilson
 Map Revised: 08/28/2012
 Map Phase: Pre-Review

Cover Type & Treatment Map

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

Legend

- Remonumented Section Corners
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Selection (Group, Single Tree)

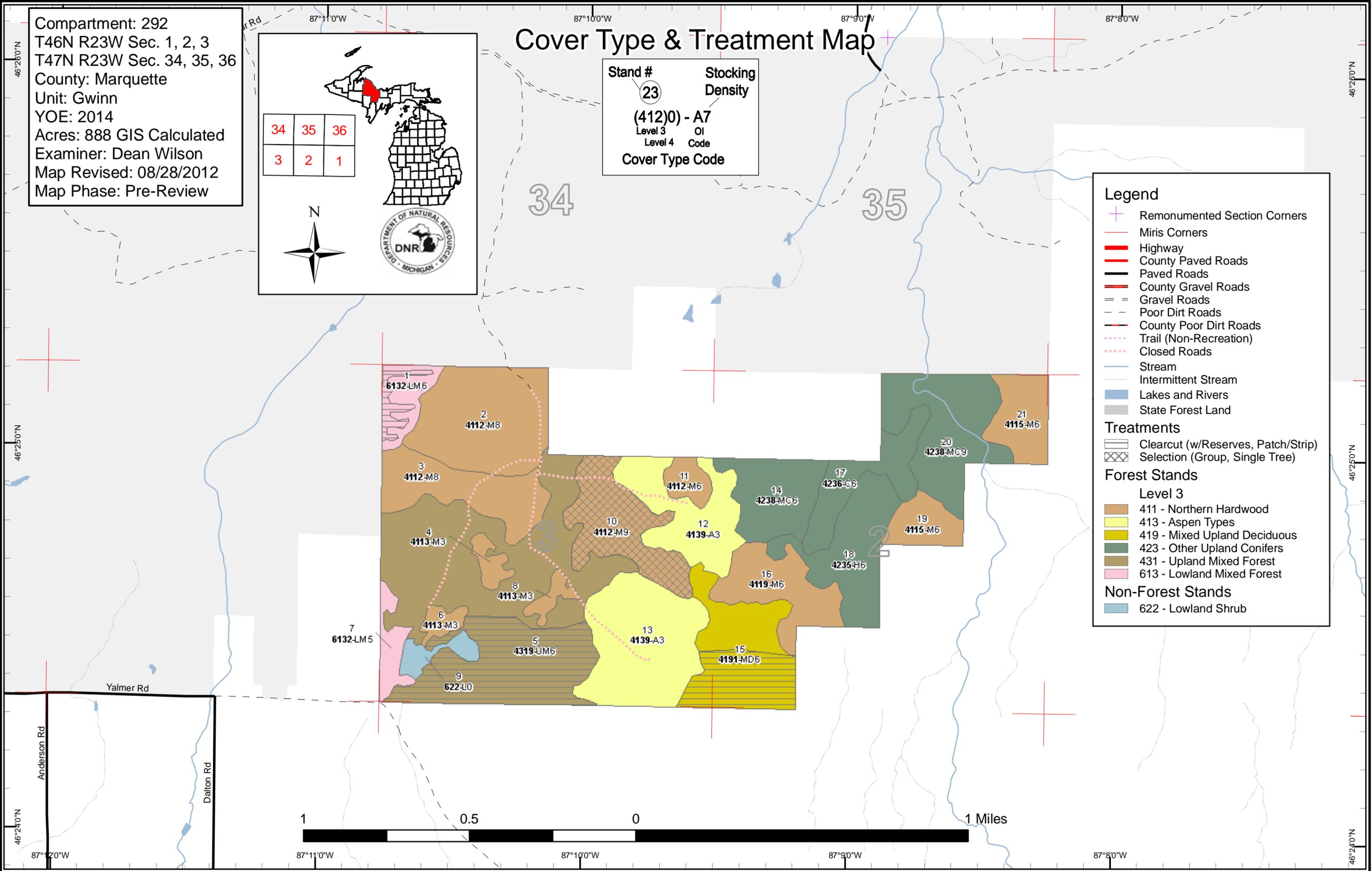
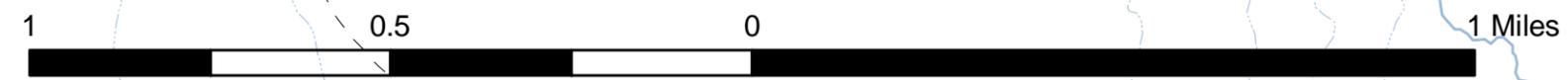
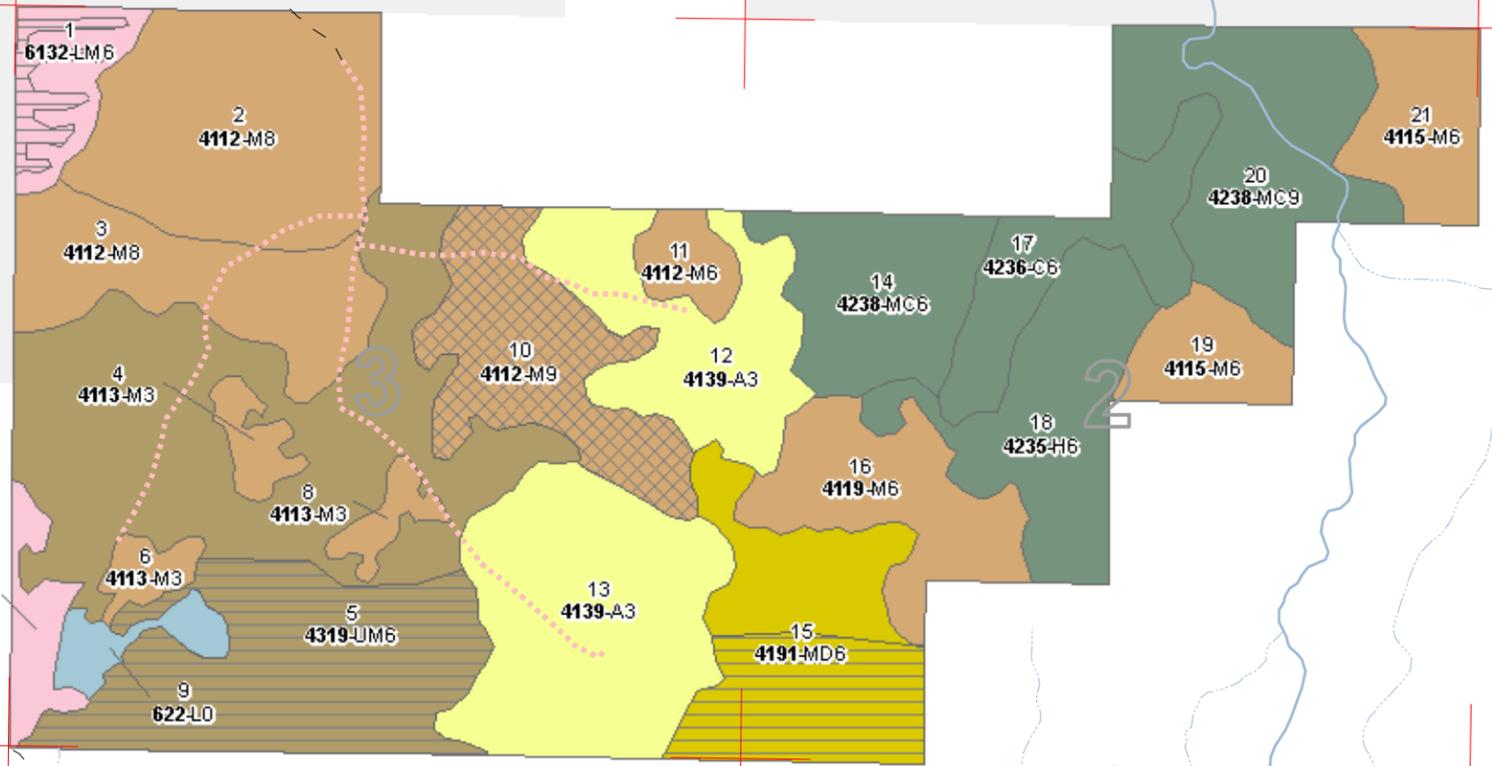
Forest Stands

Level 3

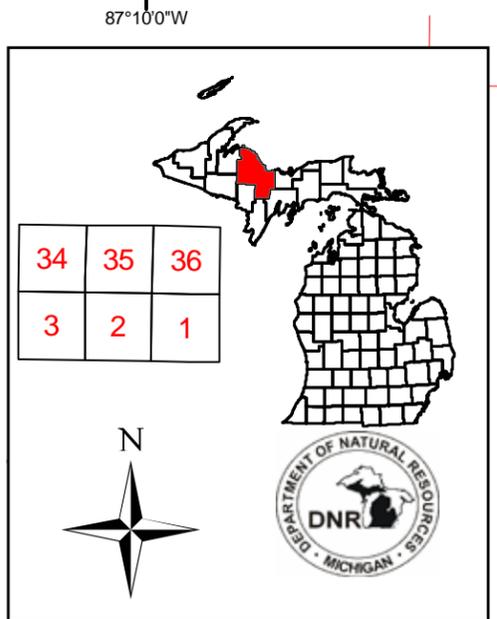
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

- 622 - Lowland Shrub



Compartment: 292
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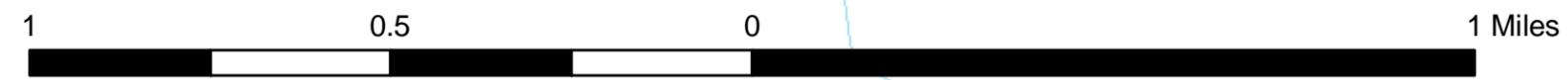
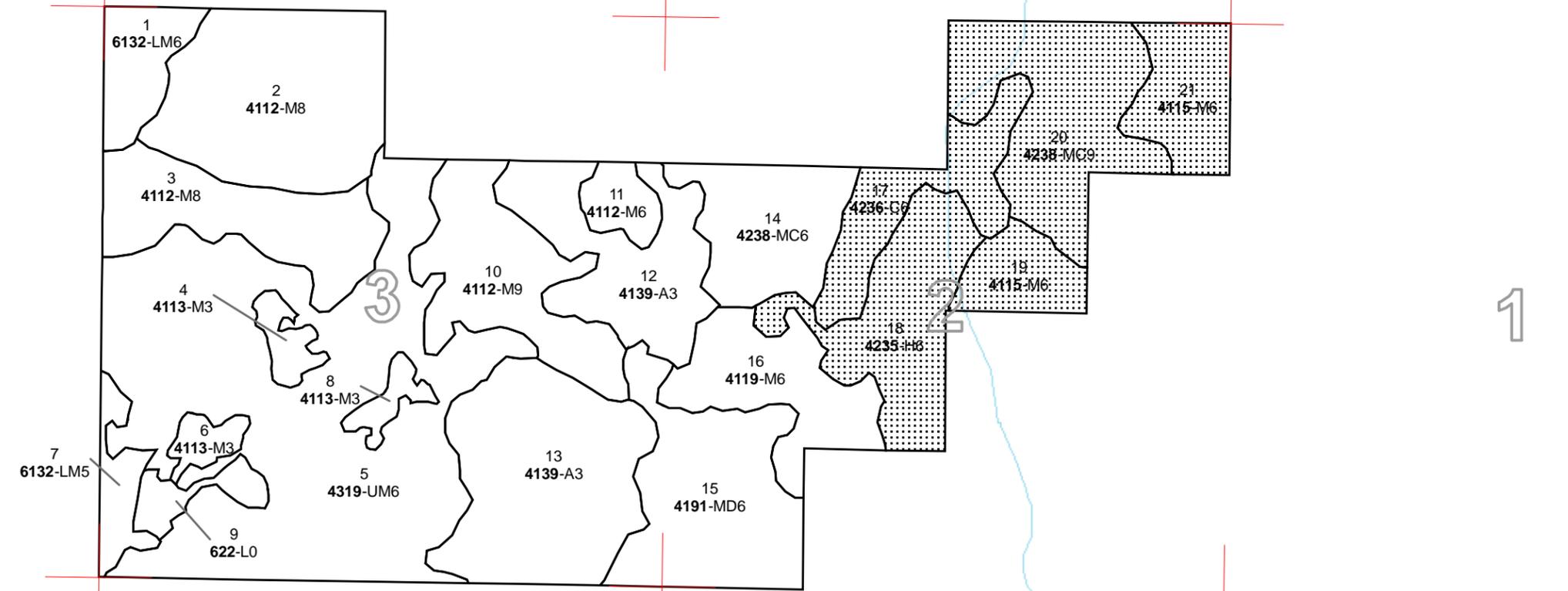


Dedicated & Proposed Special Conservation Area Map

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

Legend

- Remonumented Section Corners
- Miris Corners
- Stand Boundaries
- Proposed Special Conservation Areas**
- SCA - Special Conservation Area
- Dedicated Special Conservation Areas**
- Cold Water Streams
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest
- 613 - Lowland Mixed Forest
- Non-Forest Stands**
- 622 - Lowland Shrub



87°11'0"W 87°10'0"W 87°9'0"W 87°8'0"W 87°7'0"W 87°6'0"W
 46°25'0"N 46°25'0"N 46°25'0"N 46°25'0"N 46°25'0"N 46°25'0"N

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	47	76	0	0	0	0	0	0	0	0	0	0	0	0	123
Cedar	0	0	0	0	0	0	0	0	0	32	0	0	0	0	32
Hemlock	0	0	0	0	0	0	0	0	0	49	0	0	0	0	49
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	31	0	0	0	0	31
Lowland Shrub	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	61	0	0	0	0	61
Northern Hardwood	20	0	0	0	0	0	0	0	0	263	0	0	0	0	283
Upland Conifers	0	0	0	0	0	0	0	0	0	101	0	0	0	0	101
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	200	0	0	0	0	200
Total	76	76	0	736	0	0	0	0	888						



Table 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2014

Compartment 292
Total Compartment Acres: 888.4

Acres by Treatment Type

Commercial Harvest - 164	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>
Lowland Mixed Forest	7	0	0	0	0	0	0	7
Mixed Upland Deciduous	34	0	0	0	0	0	0	34
Northern Hardwood	0	49	0	0	0	0	0	49
Upland Mixed Forest	75	0	0	0	0	0	0	75
Total	115	49	0	0	0	0	0	164



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	32292001-Cut	7.0	6132 - Mixed Lowland Forest with Cedar	High Density Pole	94	81-110	Harvest	Patch or Strip Clearcut	6132 - Mixed Lowland Forest with Cedar	Cmpt. Review Proposal
<p><u>Prescription:</u> Clearcut 40 to 50 foot wide strips trying to stay on higher ground.</p> <p><u>Specs:</u></p> <p><u>Other:</u> No retention within strips.</p> <p><u>Comments:</u></p> <p><u>Next Steps:</u> Check for regeneration per work guidelines.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
5	32292005-Cut	74.5	4319 - Mixed Upland Forest	High Density Pole	94	81-110	Harvest	Patch or Strip Clearcut	4113 - R.Maple, Conifer	Cmpt. Review Proposal
<p><u>Prescription:</u> Harvest 1/3 of this stand using a combination of patch cuts connected with strips. Target the more well drained areas. Retain hemlock, cedar, yellow birch, and pine if encountered. No chipping.</p> <p><u>Specs:</u></p> <p><u>Other:</u> The actual sale boundary will be determined when the sale work is started.</p> <p><u>Comments:</u></p> <p><u>Next Steps:</u> Check for regeneration per work instruction guidelines.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
10	32292010-Cut	49.0	4112 - Maple, Beech, Cherry Association	High Density Log	94	111-140	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<p><u>Prescription:</u> Mark as a single tree selection favoring sugar maple, black cherry, and yellow birch. Release at least 50 crop trees per acre. Achieve a residual basal area of 70 to 90 square feet. Maintain the beech component in this stand. No chipping.</p> <p><u>Specs:</u></p> <p><u>Other:</u> A wind throw event in this stand in 2002 created numerous and variable size canopy gaps. Where possible release the advanced regeneration in these gaps. Keep eyes open for beech bark disease.</p> <p><u>Comments:</u></p> <p><u>Next Steps:</u> Check regeneration per work guidelines.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
15	32292015-Cut	33.7	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	90	51-80	Harvest	Patch or Strip Clearcut	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<p><u>Prescription:</u> Harvest 1/2 of this stand using a combination of patch cuts connected with strips. Retain hemlock, cedar, yellow birch, and pine if present. No chipping.</p> <p><u>Specs:</u></p> <p><u>Other:</u> Extensive wind throw occurred in the southern portion of this stand in 2002. Focus the harvest here and in the more well drained parts of the northern portion. Actual sale boundary will be determined when the sale work starts.</p> <p><u>Comments:</u></p> <p><u>Next Steps:</u> Check regeneration per work instruction guidelines.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										

**Total Treatment
Acreage Proposed: 164.2**

**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
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Prescription
Specs:

Other
Comments:

Next
Steps:

Proposed
Start Date: #Error

**Total Treatment
Acreage Proposed: 0**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6132 - Mixed Lowland Forest with Cedar	High Density Pole	18.8	94	81-110	Mixed lowland and upland
2	4112 - Maple, Beech, Cherry Association	Medium Density Log	74.2	94	51-80	Harvested in 1998: TS#25-94. Significant wind throw from storm of 7/21/02. Minor component of spruce-fir and white pine in sub-canopy.
3	4112 - Maple, Beech, Cherry Association	Medium Density Log	46.4	94	81-110	Harvested in 2008: TS#124-05-01. Stand suffered significant wind throw on 7/21/02.
4	4113 - R.Maple, Conifer	High Density Sapling	7.2	4		Harvested in 2008: TS#124-05-01
5	4319 - Mixed Upland Forest	High Density Pole	200.3	94	81-110	Use a combination of patch (3 to 5 acre) and strip cutting to treat 20 to 30 percent of this stand. Retain all cedar, hemlock, yellow birch, and any beech that may occur.
6	4113 - R.Maple, Conifer	High Density Sapling	6.4	4		Harvested in 2008: TS#124-05-01.
7	6132 - Mixed Lowland Forest with Cedar	Medium Density Pole	12.2	90	51-80	Approximately a 1 acre timber trespass occurred in the southwest part of this stand historically.
8	4113 - R.Maple, Conifer	High Density Sapling	6.2	4		Harvested in 2008: TS#124-05-01.
10	4112 - Maple, Beech, Cherry Association	High Density Log	49.0	94	111-140	Conduct a selection harvest. Retain all if any beech. Favor black cherry for retention.
11	4112 - Maple, Beech, Cherry Association	High Density Pole	9.9	90	51-80	Harvested in 2008: TS#125-04-01.
12	4139 - Aspen, Mixed Deciduous	High Density Sapling	47.3	4		Harvested in 2008: TS#125-04-01.
13	4139 - Aspen, Mixed Deciduous	High Density Sapling	75.9	13		Harvested in 1999: TS#19-94-01.
14	42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Pole	38.5	94	111-140	Mixed upland and lowland.
15	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	60.9	90	51-80	Final harvest retaining hemlock, cedar, yellow birch, and any white pine that occurs. Also exclude by red lining out of the sale the pockets of cedar.
16	4119 - Mixed Northern Hardwoods	High Density Pole	39.3	90	81-110	Stand suffered significant wind throw on 7/21/02.
17	42360 - Upland Cedar	High Density Pole	32.0	94	141-170	SCA = Part of a winter deer yard complex and riparian protection for the Sand River. Mixed lowland and upland.

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Gwinn Mgt. Unit

5 – Forested Stands

Compartment: 292
Year of Entry: 2014



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	42350 - Upland Hemlock	High Density Pole	48.7	94	51-80	SCA = Riparian zone protection for the Sand River and part of a winter deer yard complex. Latticed with drains that feed the Sand River.
19	4115 - Y.Birch, Hemlock NH	High Density Pole	18.2	90	51-80	SCA = Riparian zone protection for the Sand River.
20	42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Log	62.2	94	111-140	SCA = Riparian zone protection for the Sand River. Latticed with drains that feed the Sand River.
21	4115 - Y.Birch, Hemlock NH	High Density Pole	26.1	90	51-80	SCA = Riparian zone protection for the Sand River. Mixed upland and lowland.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
9	6223 - Inundated Shrub Swamp	9.1	No	Unspecified	Abandoned beaver flooding.

**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
multiple - see	Unique Site - SCA		187.1	Area is a combination of being part of a larger winter deer yard complex and riparian zone protection. WLD - part of the historic Sand River Deer wintering area.

**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.