



**Gwinn Forest Management Unit
Compartment Review Presentation
Compartment 104 Entry Year: 2014
Compartment Acreage: 1,291 County: Alger**

Revision Date: 8/20/12

Stand Examiner: Jennifer Burnham

Legal Description: T45N R22W Section(s) 6, 7, 18

RMU (if applicable): Chatham/AuTrain Moraines Management Area

Management Goals: Improve the quality of the extensive northern hardwood stands through selective management while maintaining the conifer content and den trees for wildlife.

Soil and Topography: Terrain is mostly level to slightly rolling. Soils range from organic swamps and poorly drained loamy soils to well drained loams. Major soils series include Kalkaska, Munising, Keweenaw.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment is bordered on the north by private non-industrial ownership, on the west by private and corporate lands, and on the east and south by State lands. Primary land use is production of commercial forest products and low intensity recreation.

Unique, Natural Features: None identified with MNFI. There is a potential for rare plants of rich mesic forests: Carex assiniboinensis, showy orchis, green spleenwort, Ginseng, Goblin Fern. Potential for RSH in numerous M9 stands. Potential for wood turtle along McMaster's Creek.

Archeological, Historical, and Cultural Features: None listed with HAL. Evidence of old logging camps.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations: McMasters Creek and tributaries

Wildlife Habitat Considerations: Featured species include bobolink, Canada goose, northern goshawk and upland sandpiper

Mineral Resource and Development Concerns and/or Restrictions: 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 Groups and Cambrian Trempealeau Formation subcrop below the glacial drift. The Black River is quarried for stone/dolomite elsewhere in the UP. A gravel pit is located just to the north 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: Access to the compartment from the north is via Sundell Road. Access from the west is restricted by private lands.

Survey Needs: Survey work may be needed for sales on the very north and south end of the compartment.

Recreational Facilities and Opportunities: No developed facilities but some of the two-tracks are used in the winter by dogsled teams. Otherwise, mainly hunting (deer, grouse) and fishing.

Fire Protection: Very low risk area.

Additional Compartment Information:

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Cover Type by Management Objective**
 - ◆ **Compartment Volume Summary**
 - ◆ **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 old growth**

Cover Type & Treatment Map

Compartment: 104
 T45N R22W Sec. 5-8, 18
 County: Alger
 Unit: Gwinn
 YOE: 2014
 Acres: 1,291 GIS Calculated
 Examiner: Jennifer Burnham
 Map Revised: 08/28/2012
 Map Phase: Pre-Review

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

Legend

- Remunemented Section Corners
- Miris Corners
- PLSS Corner
- Wood Post
- Unclassified Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Gate
- Berms
- Structures
- Stream
- Intermittent Stream
- Pipeline
- Snowmobile Trails
- Snowmobile Trail
- Lakes and Rivers
- State Forest Land

Treatments

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

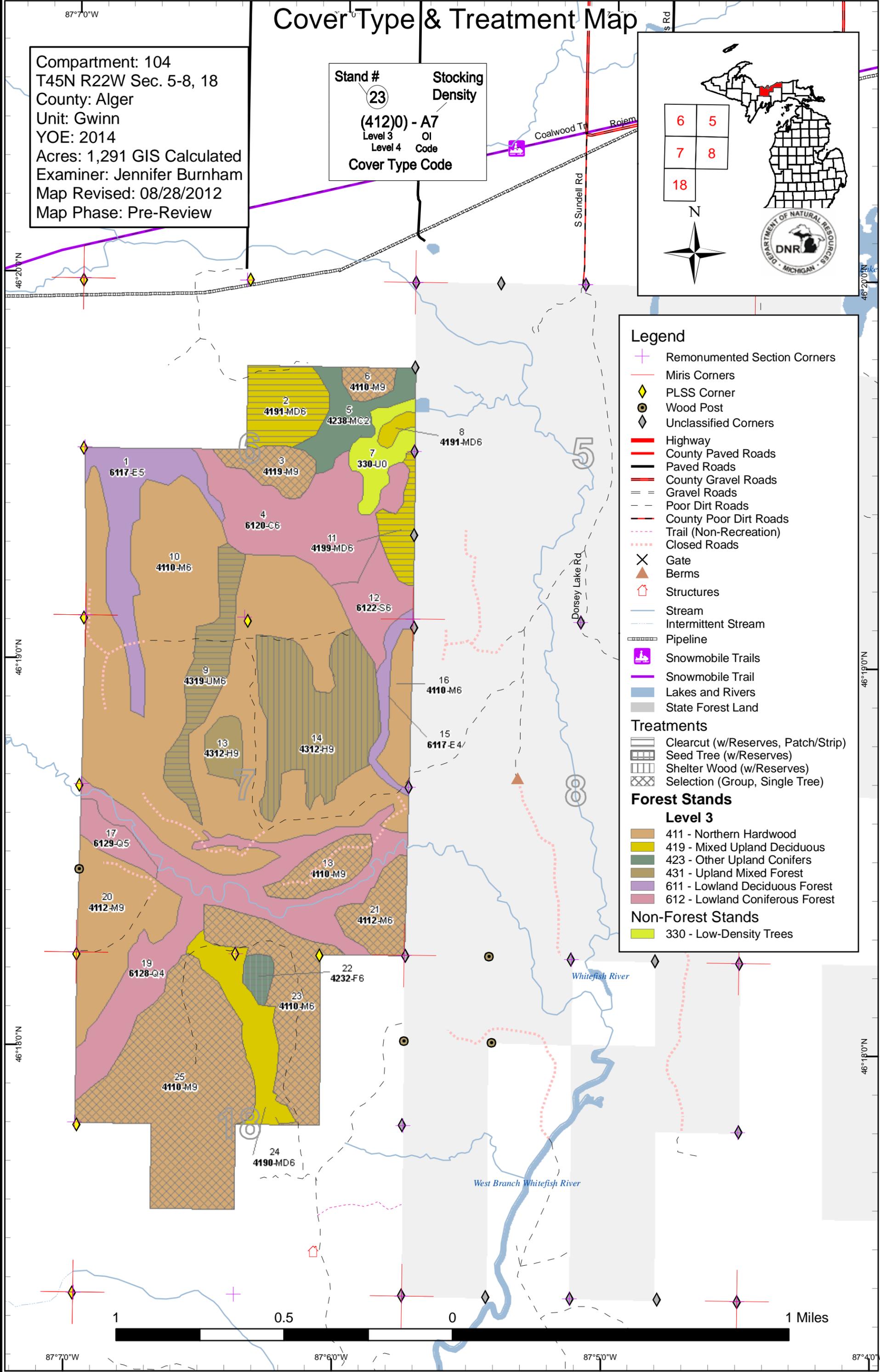
Forest Stands

Level 3

- 411 - Northern Hardwood
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

- 330 - Low-Density Trees



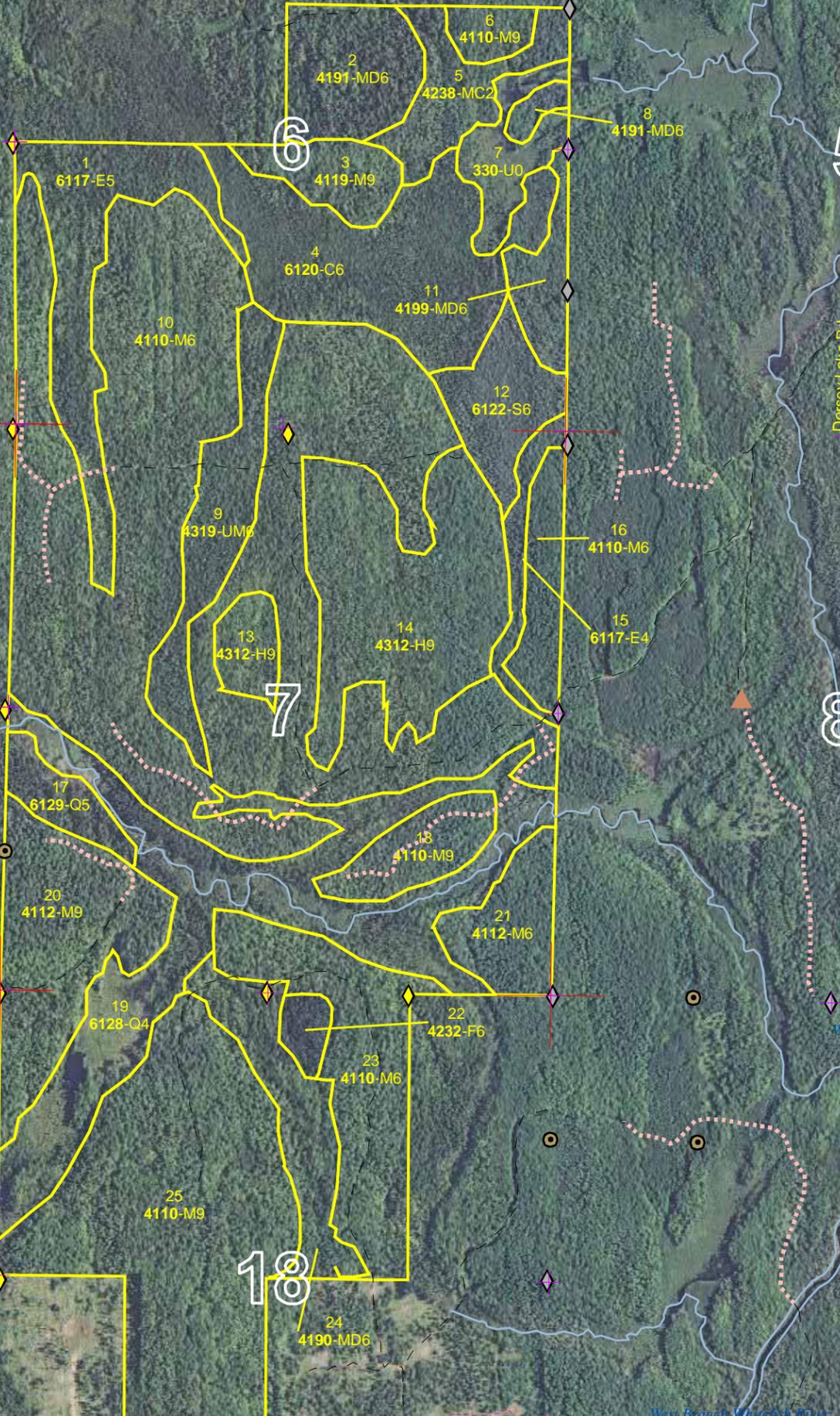
87°70'W 87°60'W 87°50'W 87°40'W

46°20'0"N 46°19'0"N 46°18'0"N 46°17'0"N

Compartment: 104
 T45N R22W Sec. 5-8, 18
 County: Alger
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 YOE: 2014
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 Examiner: Jennifer Burnham
 Map Revised: 07/31/2012
 Map Phase: Pre-Review

Stand Boundary Map

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



Legend

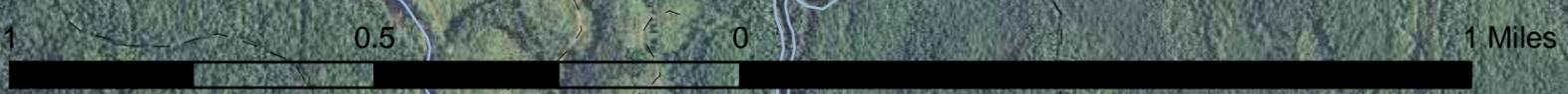
- Remonumented Section Corners
- Miris Corners
- PLSS Corner
- Wood Post
- Unclassified Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
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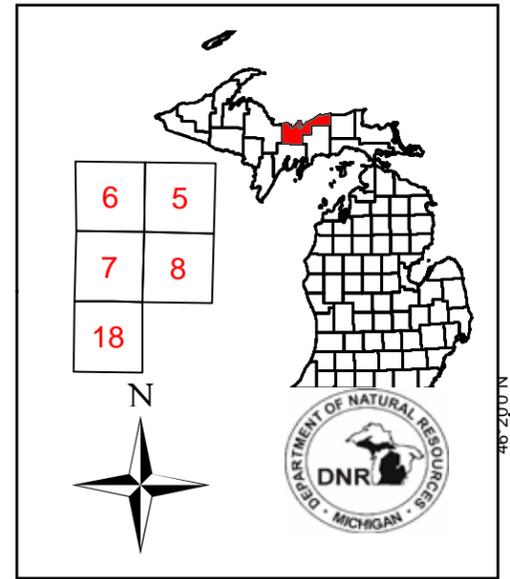


87°7'0"W

Dedicated & Proposed Special Conservation Area Map

Compartment: 104
 T45N R22W Sec. 5-8, 18
 County: Alger
 Unit: Gwinn
 YOE: 2014
 Acres: 1,291 GIS Calculated
 Examiner: Jennifer Burnham
 Map Revised: 08/28/2012
 Map Phase: Pre-Review

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 Removal
- Dedicated Special Conservation Areas
- Cold Water Streams

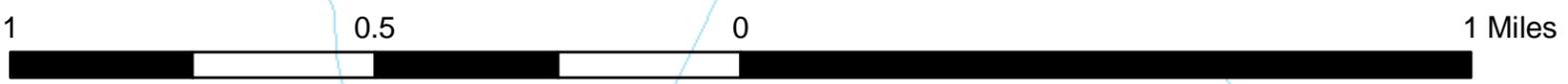
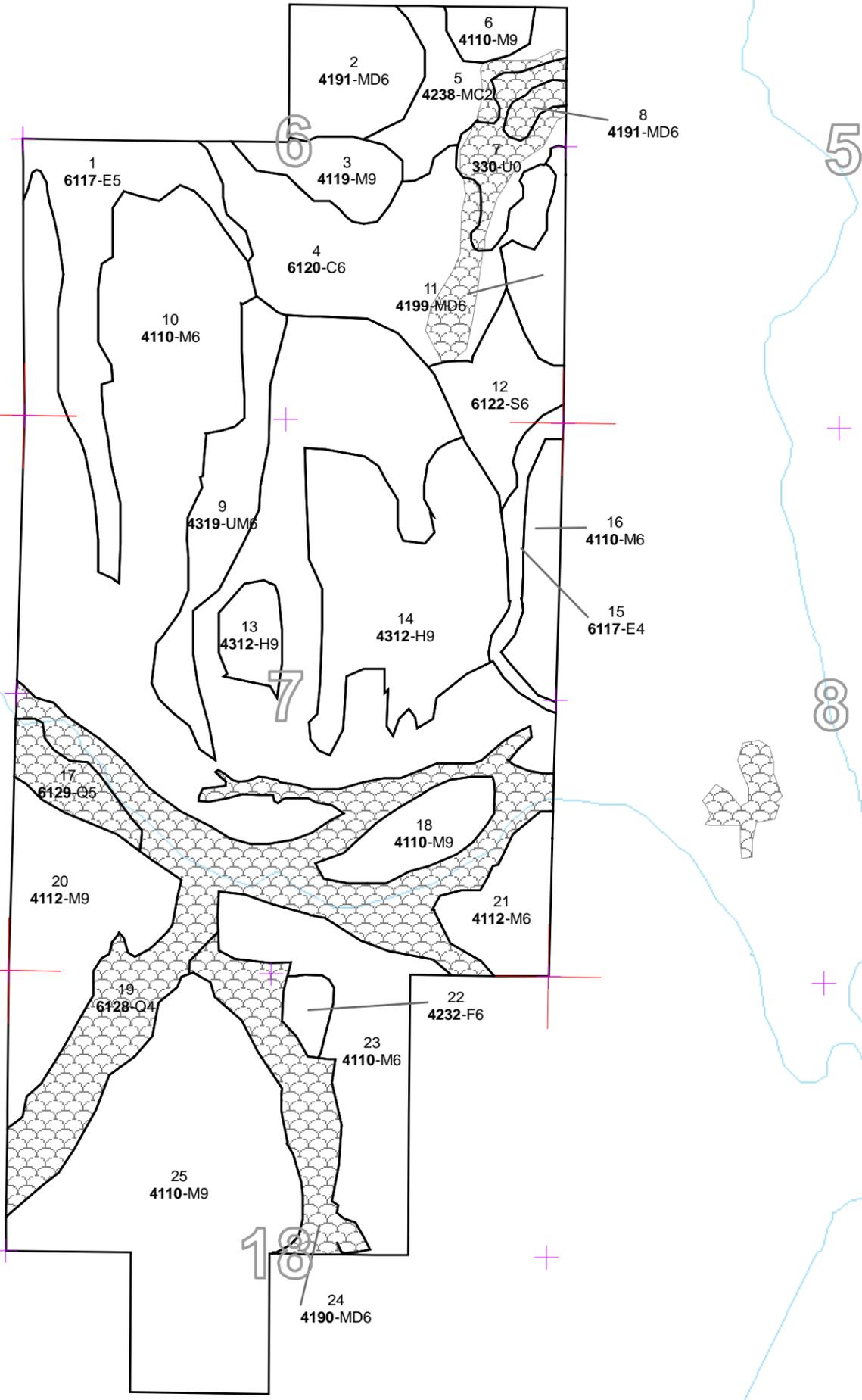
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Non-Forest Stands

- 330 - Low-Density Trees



87°7'0"W

87°6'0"W

87°5'0"W

87°4'0"W

46°20'0"N

46°19'0"N

46°18'0"N

46°20'0"N

46°19'0"N

46°18'0"N

Table 1 – Total Acres by Cover Type and Age Class

Jennifer Burnham : Examiner



	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	
Cedar	0	0	0	0	0	0	0	82	0	0	0	0	0	0	82
Hemlock	0	0	0	0	0	0	0	0	0	0	0	12	0	88	100
Low-Density Trees	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Lowland Conifers	0	0	0	0	0	0	0	0	0	141	0	0	0	0	141
Lowland Deciduous	0	0	0	0	0	0	0	53	0	12	0	0	0	0	65
Lowland Spruce/Fir	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26
Mixed Upland Deciduous	0	0	0	0	0	19	0	34	0	35	0	0	0	0	88
Northern Hardwood	0	0	0	0	0	0	0	0	46	295	0	0	0	356	698
Upland Conifers	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27
Upland Mixed Forest	0	0	0	0	0	0	0	38	0	0	0	0	0	0	38
Upland Spruce/Fir	0	0	0	0	7	0	0	0	0	0	0	0	0	0	7
Total	19	0	27	0	7	46	0	207	46	483	0	12	0	445	1291



Table 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2014

Compartment 104
Total Compartment Acres: 1291

Acres by Treatment Type

Commercial Harvest - 463	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>
Hemlock	0	0	0	88	0	0	0	88
Mixed Upland Deciduous	49	0	0	0	0	0	0	49
Northern Hardwood	0	281	0	0	0	0	0	281
Upland Mixed Forest	38	0	0	0	0	0	0	38
Upland Spruce/Fir	0	0	7	0	0	0	0	7
Total	87	281	7	88	0	0	0	463



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	32104002-Cut	33.9	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	72	81-110	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest stand to promote aspen regeneration - small est 2 acre patch of maple should be marked to help promote favorable hardwood regeneration. Save some of the mast producing black cherry, wind firm spruce and forked aspen.</p> <p><u>Specs:</u></p> <p><u>Other</u> WLD- Save some of the mast producing black cherry, wind firm spruce and forked aspen.</p> <p><u>Comments:</u></p> <p><u>Next</u> Monitor for acceptable regeneration mix of aspen, conifers and hardwood.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
3	32104003-Cut	18.2	4119 - Mixed Northern Hardwoods	High Density Log	80	111-140	Harvest	Single Tree Selection	4116 - Mixed N. Hardwood - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Mark to promote and release regeneration of spp present BA of 70-90. Some areas will have more or larger canopy gaps especially where the quality is poor. The small patch of higher quality hardwood should have the "typical" hardwood selection cut. Move stand into uneven aged.</p> <p><u>Specs:</u></p> <p><u>Other</u> WLD- Save some of the mast producing black cherry, wind firm spruce and forked aspen.</p> <p><u>Comments:</u></p> <p><u>Next</u> Monitor for regeneration containing the spp already present.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
6	32104006-Cut	8.6	4110 - Sugar Maple Association	High Density Log	80	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Mark following hardwood marking guidelines BA 70-90- edges contain more diversity larger canopy gaps in those areas will help to maintain this.</p> <p><u>Specs:</u></p> <p><u>Other</u> WLD-If available leave some larger Big Tooth Aspen (forked crowned) should be left in retention.</p> <p><u>Comments:</u></p> <p><u>Next</u> Monitor for regeneration of spp currently present.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
11	32104011-Cut	15.3	4199 - Other Mixed Upland Deciduous	High Density Pole	52	51-80	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<p><u>Prescription</u> Recommend final harvest leaving hemlock, cedar and mast producing cherry trees - there are trace amounts especially near the swamp edge.</p> <p><u>Specs:</u> Retention pockets could be left around the scattered wet areas.</p> <p><u>Other</u> A culvert will have to be placed on the access road in the adj compartment - there was one there previously but now removed and road blocked. Treatment should be in the winter or during a dry year.</p> <p><u>Comments:</u></p> <p><u>Next</u> Monitor for regeneration of current spp</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
14	32104014-Cut	88.3	4312 - Hemlock, Mixed Deciduous	High Density Log	112	141-170	Harvest	Shelter Wood with Reserves	4115 - Y. Birch, Hemlock NH	Cmpt. Review Proposal
<p><u>Prescription</u> Remove all spp except hemlock and cedar. Do not cut ash trees unless they will hinder regeneration. Mark other spp for leave tree, especially those in and around the hemlock patches. Residual BA will vary greatly depending on the distribution of the conifers being left.</p> <p><u>Specs:</u></p> <p><u>Other</u> Treat in the winter to help protect the soils.</p> <p><u>Comments:</u></p> <p><u>Next</u> Monitor for regeneration of spp that are currently present.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
18	32104018-Cut	21.0	4110 - Sugar Maple Association	High Density Log	76	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Mark to create canopy gaps and release the established regeneration. Mark to promote diversity BA 70-90.										
<u>Specs:</u>										
<u>Other</u> Road system already established.										
<u>Comments:</u>										
<u>Next</u> Monitor to check for regen release.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
21	32104021-Cut	24.6	4112 - Maple, Beech, Cherry Association	High Density Pole	90	51-80	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription</u> Mark to create canopy gaps and release the established regeneration. Mark to promote diversity BA 70-90.										
<u>Specs:</u>										
<u>Other</u> Last harvest access was through PVT - if not able to go that way again, stand can be accessed through stand 19 with bridge.										
<u>Comments:</u>										
<u>Next</u> Monitor for regeneration.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
22	32104022-Cut	6.7	42320 - Upland Spruce	High Density Pole	47	111-140	Harvest	Seed Tree	4319 - Mixed Upland Forest	Cmpt. Review Proposal
<u>Prescription</u> Final harvest leaving large white pine and some scattered spruce and other represented species for seed source for regeneration purposes.										
<u>Specs:</u>										
<u>Other</u> WLD - Leave some of the mast producing black cherry.										
<u>Comments:</u>										
<u>Next</u> Regeneration should be a mix of the same species that are present.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
23	32104023-Cut	62.7	4110 - Sugar Maple Association	High Density Pole	90	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Mark to create canopy gaps to release regeneration and promote diversity BA 70-90. When leaving black cherry leave those that are mass producing and those being cut open up more of the canopy around them to promote cherry regeneration. Leave the large canopy yellow birch where BA allows it.										
<u>Specs:</u>										
<u>Other</u> Appears to have some maple die back - assuming drought related.										
<u>Comments:</u>										
<u>Next</u> Monitor for regeneration of spp currently present.										
<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
25 32104025-Cut	145.5	4110 - Sugar Maple Association	High Density Log	90	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription Mark to promote diversity and release regeneration following the complete marker guidelines BA 70-90. When leaving black cherry leave those that are mass producing and those being cut open up more of the canopy around them to promote cherry regeneration. Leave the large canopy yellow birch where BA allows it.

Other Last harvest access was through pvt, if this can not be done again it is possible to get through from the north with a bridge over the creek. Good road system already in place.

Next Monitor for regeneration of spp already present.

Proposed
Start Date: 10/01/2013

**Total Treatment
Acreage Proposed: 424.8**

**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**

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Gwinn Mgt. Unit

5 – Forested Stands

Compartment: 104
Year of Entry: 2014

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	53.1	72	1-50	
4191 - Mixed Upland Deciduous with Conifer	High Density Pole	33.9	72	81-110	
4119 - Mixed Northern Hardwoods	High Density Log	18.2	80	111-140	
6120 - Lowland Cedar	High Density Pole	82.3	78	51-80	
42380 - Non Pine Upland Conifer, Mixed Deciduous	Medium Density	26.5	29	1-50	
4110 - Sugar Maple Association	High Density Log	8.6	80	111-140	
4191 - Mixed Upland Deciduous with Conifer	High Density Pole	4.1	52	51-80	Stand is ready for TMT, however it is low quality with small feeder creeks through out.
4319 - Mixed Upland Forest	High Density Pole	38.0	76	111-140	
4110 - Sugar Maple Association	High Density Pole	335.4	Uneven Age	81-110	
4199 - Other Mixed Upland Deciduous	High Density Pole	15.3	52	51-80	Age asp cored but hard 2 tell, at least over 70- RM was cored at 52.
6122 - Black Spruce	High Density Pole	26.3	56	1-50	Good condition, nice std.
4312 - Hemlock, Mixed Deciduous	High Density Log	11.8	112	111-140	
4312 - Hemlock, Mixed Deciduous	High Density Log	88.3	Uneven Age	141-170	
6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	11.9	90	1-50	
4110 - Sugar Maple Association	High Density Pole	19.2	85	81-110	
6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	13.7	90	51-80	
4110 - Sugar Maple Association	High Density Log	21.0	Uneven Age	81-110	

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Gwinn Mgt. Unit

5 – Forested Stands

Compartment: 104
Year of Entry: 2014



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	126.9	90	1-50	
20	4112 - Maple, Beech, Cherry Association	High Density Log	62.6	90	51-80	
21	4112 - Maple, Beech, Cherry Association	High Density Pole	24.6	90	51-80	
22	42320 - Upland Spruce	High Density Pole	6.7	47	111-140	
23	4110 - Sugar Maple Association	High Density Pole	62.7	90	81-110	
24	4190 - Mixed Upland Deciduous with Cedar	High Density Pole	34.7	90	81-110	
25	4110 - Sugar Maple Association	High Density Log	145.5	90	81-110	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
7	3303 - Mixed Low Density Trees	19.5	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
4	SCA Removal	32104004-SCA removal	10.2	only part of the stand was POG -
5	SCA Removal	32104005-SCA removal	3.6	Not POG
8	SCA Removal	32104008	4.1	will probably be LF b/c of BMP's
17	SCA Removal	32104017	13.7	May get LF
19	SCA Removal	32104019	126.9	not POG - BMP's will protect the portions of the stand that needs it.
24	SCA Removal	32104024-SCA removal	34.7	Not POG
7	SCA Removal	NF_32104007-SCA removal	14.3	Not POG



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.