



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 203

Entry Year 2016

Acreage: 1,410

County Marquette

Management Area: Huron Mountains

Revision Date: 08/08/2014

Stand Examiner: Dean Wilson

Legal Description:

T49N-R26W, Sections 3-5, 9 & 10.

Identified Planning Goals:

Harvest older stands of aspen, birch and spruce/fir to encourage regeneration of these species. Selectively harvest northern hardwood types to improve quality and promote regeneration.

Soil and topography:

The major soil associations are Keweenaw, Kalkaska and Rubicon. Topography consists of rolling hills to moderately steep hills throughout.

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

Land use is primarily for forest products and recreation with an emphasis on hiking, hunting and fishing.

Unique Natural Features:

Most of this area was gifted to the State to protect the steelhead fishery in the Little Garlic River. The Little Garlic Falls is a popular hiking destination and a point of interest on the North Country Trail.

Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

Special Management Designations or Considerations:

All management operations will take into consideration the protection of the Little Garlic watershed and its tributaries.

Watershed and Fisheries Considerations:

The Little Garlic River is a very popular steelhead trout fishery in the spring and provides an excellent opportunity for fishermen.

Wildlife Habitat Considerations:

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel and coarse-textured glacial till in places thin to discontinuous. The glacial drift thickness varies between 10 and 50 feet or there is insufficient data to determine the thickness. The Precambrian Jacobsville Sandstone and Archean Volcanics subcrop below the glacial drift. The Jacobsville was used as a building stone in the past. Gravel pits are not located in the area, but potential is possible. Section 21 was previously leased for metallic exploration and gold prospects were located in the vicinity. The lands are primarily surface only. There is no economic oil and gas production in the UP.

Vehicle Access:

County Road 550 provides good access to the Northeast portion of the compartment. Smaller two tracks provide further access into the central portions of this compartment.

Survey Needs:

No survey needs will be needed for this year of entry.

Recreational Facilities and Opportunities:

The North Country Trail provides an excellent and scenic hiking opportunity. The Little Garlic River is a popular trout stream that gets a considerable amount of use during the spring steelhead run. A parking lot and bathroom facility have been constructed to accommodate these uses.

Fire Protection:

Fire occurrence has been low in this area due to the northern hardwood cover type, however, in the event of a wildfire the Ishpeming and Gwinn field stations would respond. Volunteer fire departments would also be available upon request.

Additional Compartment Information:

The following reports from the Inventory are attached:

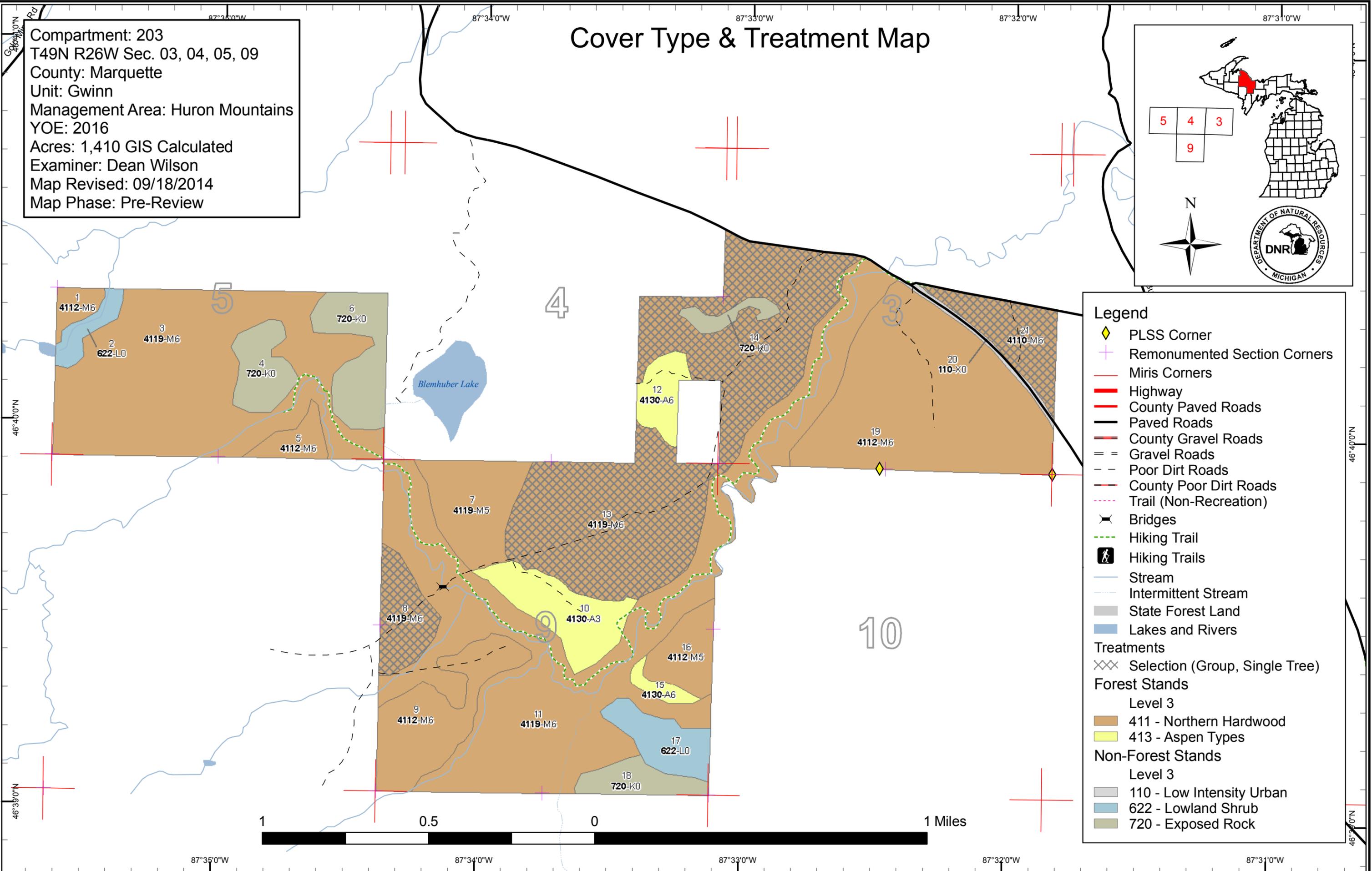
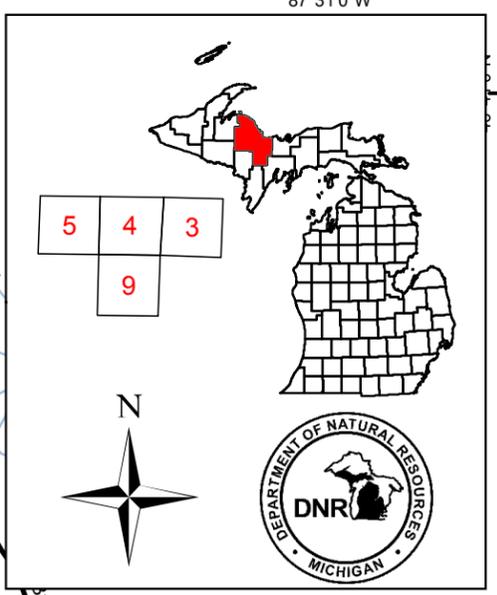
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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**

Cover Type & Treatment Map

Compartment: 203
 T49N R26W Sec. 03, 04, 05, 09
 County: Marquette
 Unit: Gwinn
 Management Area: Huron Mountains
 YOE: 2016
 Acres: 1,410 GIS Calculated
 Examiner: Dean Wilson
 Map Revised: 09/18/2014
 Map Phase: Pre-Review



Legend

- PLSS Corner
- 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)
- Bridges
- Hiking Trail
- Hiking Trails
- Stream
- Intermittent Stream
- State Forest Land
- Lakes and Rivers

Treatments

- Selection (Group, Single Tree)

Forest Stands

Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types

Non-Forest Stands

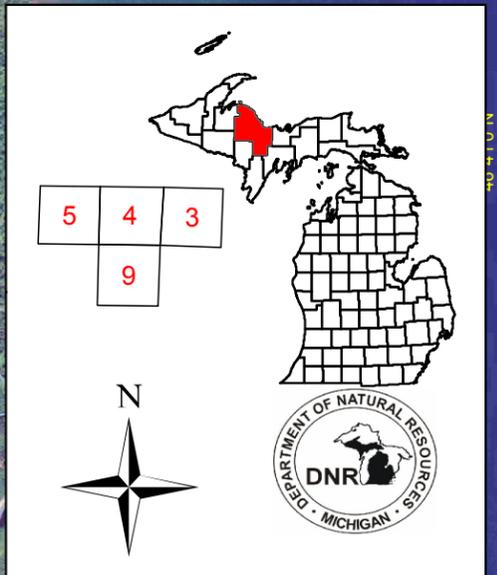
Level 3

- 110 - Low Intensity Urban
- 622 - Lowland Shrub
- 720 - Exposed Rock

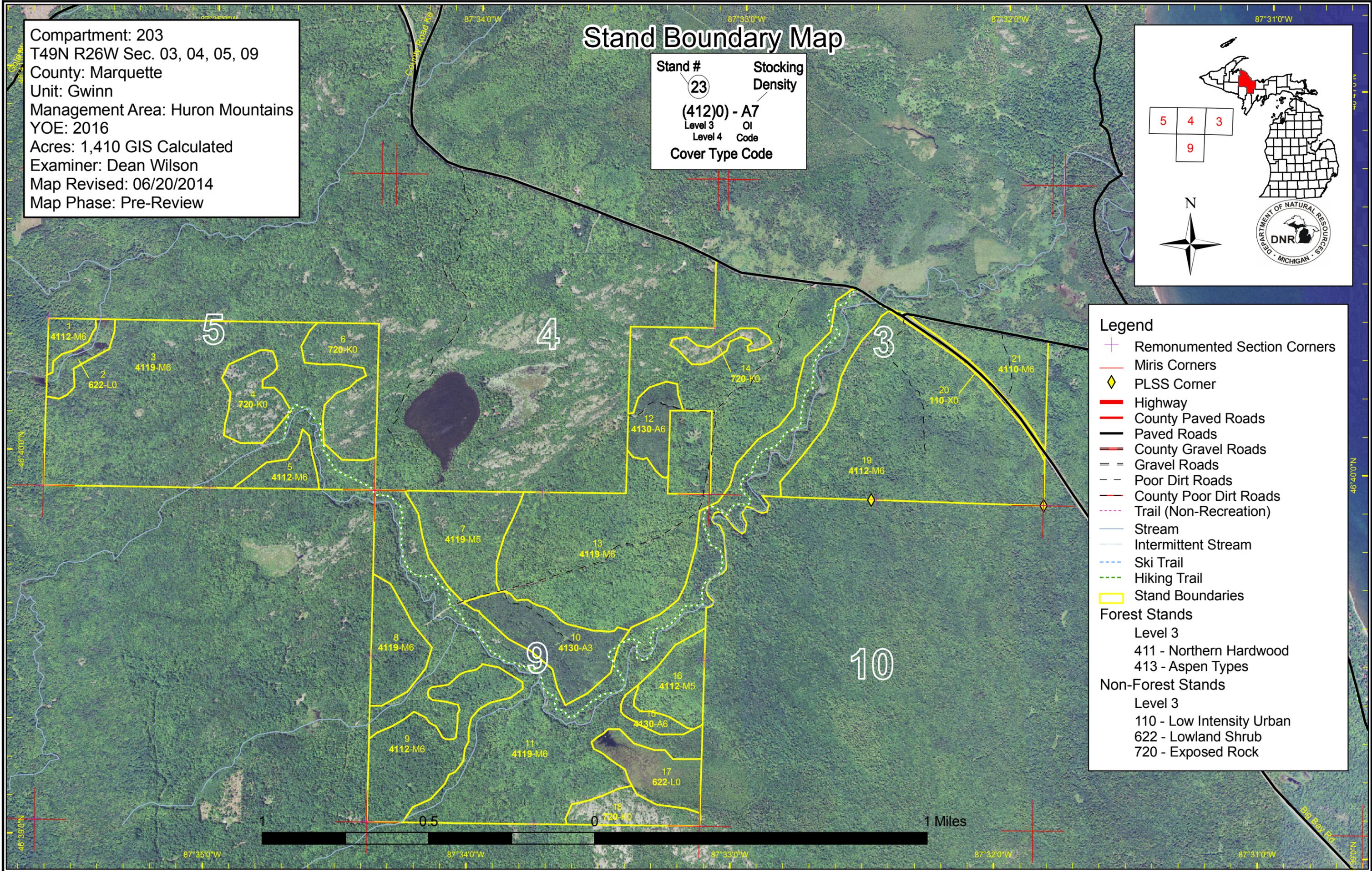
Stand Boundary Map

Compartment: 203
 T49N R26W Sec. 03, 04, 05, 09
 County: Marquette
 Unit: Gwinn
 Management Area: Huron Mountains
 YOE: 2016
 Acres: 1,410 GIS Calculated
 Examiner: Dean Wilson
 Map Revised: 06/20/2014
 Map Phase: Pre-Review

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



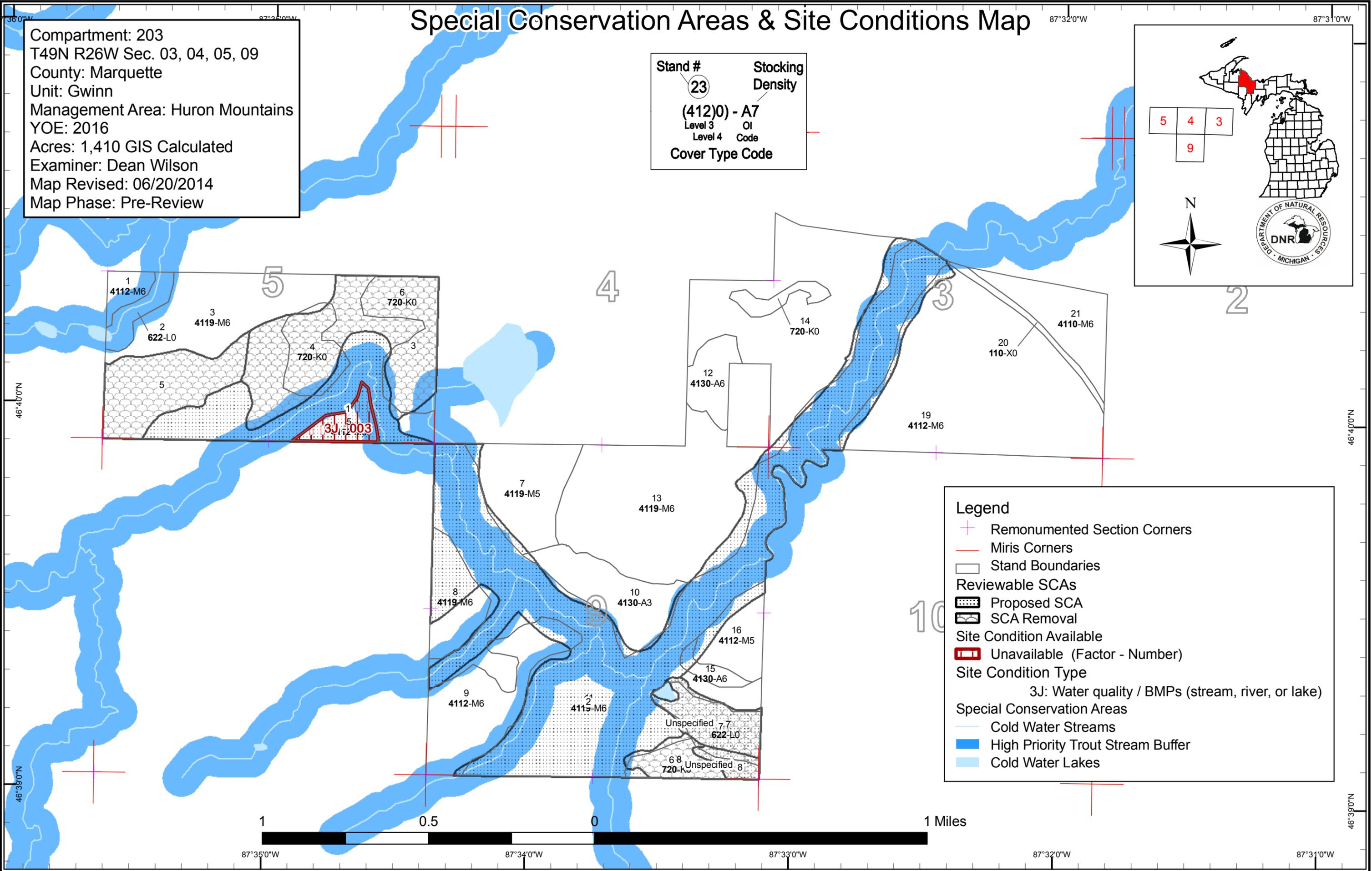
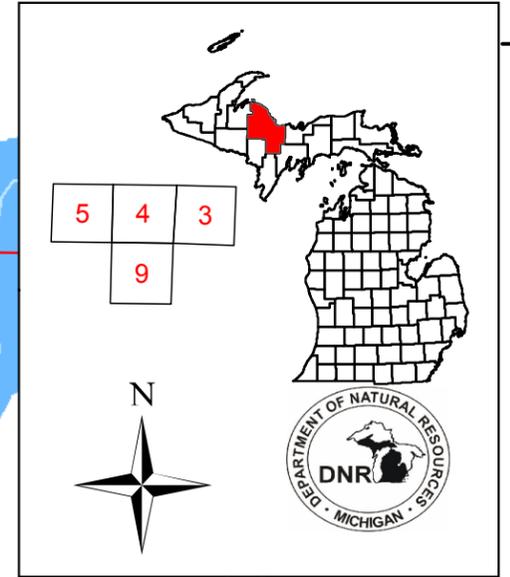
- Legend**
- ✚ Remonumented Section Corners
 - Miris Corners
 - ◆ PLSS Corner
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trail (Non-Recreation)
 - Stream
 - Intermittent Stream
 - Ski Trail
 - Hiking Trail
 - Stand Boundaries
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
 - 413 - Aspen Types
- Non-Forest Stands**
- Level 3
- 110 - Low Intensity Urban
 - 622 - Lowland Shrub
 - 720 - Exposed Rock



Special Conservation Areas & Site Conditions Map

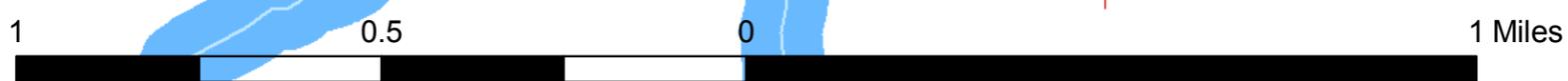
Compartment: 203
 T49N R26W Sec. 03, 04, 05, 09
 County: Marquette
 Unit: Gwinn
 Management Area: Huron Mountains
 YOE: 2016
 Acres: 1,410 GIS Calculated
 Examiner: Dean Wilson
 Map Revised: 06/20/2014
 Map Phase: Pre-Review

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



Legend

- ⊕ Remonumented Section Corners
- Miris Corners
- Stand Boundaries
- Reviewable SCAs**
- ▨ Proposed SCA
- ▩ SCA Removal
- Site Condition Available**
- ▤ Unavailable (Factor - Number)
- Site Condition Type**
- 3J: Water quality / BMPs (stream, river, or lake)
- Special Conservation Areas**
- Cold Water Streams
- High Priority Trout Stream Buffer
- Cold Water Lakes



87°35'0"W 87°34'0"W 87°33'0"W 87°32'0"W 87°31'0"W

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	0	0	68	0	0	0	0	0	0	0	0	0	0	0	68
Exposed Rock	92	0	0	0	0	0	0	0	0	0	0	0	0	0	92
Lowland Shrub	38	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Northern Hardwood	0	0	0	0	0	0	0	0	1204	0	0	0	0	0	1204
Urban	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	138	0	68	0	0	0	0	0	1204	0	0	0	0	0	1410



Report 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2016

Compartment 203
Total Compartment Acres: 1,410

Acres by Treatment Type

Commercial Harvest - 334	Tree Planting - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Northern Hardwood		0	334	0	0	0	0	334
	Total	0	334	0	0	0	0	334



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
8	32203008-Cut	29.4	4119 - Mixed Northern Hardwoods	High Density Pole	90	51-80	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal
<p><u>Prescription</u> Selectively thin to around 70-80 square feet of basal area. Do not mark under-represented trees such as basswood, yellow birch, oak, etc. to promote diversity.</p> <p><u>Specs:</u></p> <p><u>Other</u> Check this stand before compartment review to see if it's worth treating or not. Stand examiner did not treat the stand but it may have not been looked at?</p> <p><u>Comments:</u></p> <p><u>Next</u> Follow-up treatment with a regeneration survey as per the work instructions. Acceptable regeneration includes: aspen, maple, cherry, yellow and paper birch, ironwood, balsam fir, white spruce, white pine and red pine.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2015</p>										
13	32203013-Cut	267.7	4119 - Mixed Northern Hardwoods	High Density Pole	90	81-110	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<p><u>Prescription</u> Numerous areas of top dieback within the stand. It was agreed to at pre-review to clearcut w/ reserves the areas that have extensive dieback and to selectively manage the other portions of the stand that have a higher site quality and no dieback. It would be best to put red line in sometime in August to discern the areas with dieback vs. areas of selection. In the clearcut areas retain yellow birch, hemlock, pine, cedar and basswood and any under-represented species.</p> <p>In the selection areas mark individual trees to achieve basal areas of 70 to 90 sq. ft. per acre. Focus on releasing 50 to 70 crop trees per acre, defect removal, and thinning from below. Subject areas of low quality to group selections, and patch cuts up to two acres in size. Winter restriction on cutting due to deer yard. No chipping due to sensitive soils.</p> <p><u>Other</u></p> <p><u>Comments:</u></p> <p><u>Next</u> Check regeneration per work instructions. Acceptable regeneration includes maple, oak, aspen, pine, hemlock, spruce and fir.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2016</p>										
21	32203021-Cut	36.5	4110 - Sugar Maple Association	High Density Pole	90	81-110	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<p><u>Prescription</u> Mark individual trees to achieve basal areas of 70 to 90 sq. ft. per acre. Focus on releasing 50 to 70 crop trees per acre, defect removal, and thinning from below.</p> <p><u>Specs:</u></p> <p><u>Other</u> Retain all hemlock, cedar, white spruce and oak. Favor yellow birch and basswood for retention.</p> <p><u>Comments:</u></p> <p>- Need to field check this stand as the upgrades on 550 may have changed this treatment significantly. Also, may have to change the prescription if too much dieback has occurred. CC with reserves may be a better prescription.</p> <p><u>Next</u> Check regeneration per work instructions. Acceptable regeneration includes oak, aspen, maple, hemlock, pine, basswood, birch, spruce and fir.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2016</p>										
Total Treatment Acreage Proposed:		333.7								



S
t
a
n
d

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
----------------	-------	-----------	--------------	-----------	----------	----------------	------------------	----------------------	-----------------

#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
Dean Wilson : Examiner

Compartment 203
Year of Entry 2016

Availability for Management

Total Acres	Acres			Dominant Site Conditions	
	Available	Not Available		No	3J
68	68		Aspen	68	
1204	1191	13	Northern Hardwood	1,191	13
1,272	1,259	13	Total Forested Acres	1,259	13
	99%	1%	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	3J: Water quality / BMPs (stream, river, or lake)	13				
Comments:							



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
Unspecified Comments Potential old growth. Scrubby trees growing mostly on rock.	Spring-Seeps, Riparian Areas	Unspecified	SCA	7.5
Unspecified Comments Small areas are regenerating to cedar.	Spring-Seeps, Riparian Areas	Unspecified	SCA	24.8
1 Comments Head waters of Little and Big Garlic Rivers	Spring-Seeps, Riparian Areas	Riparian Area	SCA	74.8
2 Comments Mostly bottom land along Little Garlic River.	Spring-Seeps, Riparian Areas	Riparian Area	SCA	347.2
8 Comments Scrubby trees growing mostly on rock.	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	7.5
6 Comments Large rock outcropping supporting some smaller patches of scrub growth and a few trees.	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	15.6
7 Comments Potential old growth. Small areas are regenerating to cedar.	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	24.8
5 Comments	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	48.7
3 Comments Mostly scrub growth on rock. Stand contains a few acres of bare rock outcrops.	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	102.3

**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	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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.
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.

S
t
a
n
d

Gwinn Mgt. Unit

Report 8 – Forested Stands

Compartment: 203
Year of Entry: 2016

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4112 - Maple, Beech, Cherry Association	High Density Pole	9.0	90	81-110	
4119 - Mixed Northern Hardwoods	High Density Pole	219.8	90	81-110	SCA = Riparian protection
4112 - Maple, Beech, Cherry Association	High Density Pole	13.2	90	111-140	SCA = Riparian protection.
4119 - Mixed Northern Hardwoods	Medium Density Pole	47.5	90	1-50	Rock hills and outcrops.
4119 - Mixed Northern Hardwoods	High Density Pole	29.4	90	51-80	Selectively harvested in 1999: TS# 22-96-01.
4112 - Maple, Beech, Cherry Association	High Density Pole	59.3	90	81-110	Selectively harvested in 1999: TS# 22-96-01.
4130 - Aspen	High Density Sapling	42.4	25	1-50	Harvested in 1989: TS# 4-87.
4119 - Mixed Northern Hardwoods	High Density Pole	315.6	90	81-110	SCA = Riparin zone protection for the Little Garlic River. Contains some lowlands comprized of the bottom lands along the river.
4130 - Aspen	High Density Pole	18.8	25	51-80	Harvested in 1989: TS# 5-87.
4119 - Mixed Northern Hardwoods	High Density Pole	267.7	90	81-110	
4130 - Aspen	High Density Pole	6.8	26	1-50	Stand regenerated following wind throw event in 1988.
4112 - Maple, Beech, Cherry Association	Medium Density Pole	25.3	90	51-80	Stand suffered moderate to heavy wind throw in 1988.
4112 - Maple, Beech, Cherry Association	High Density Pole	180.8	90	81-110	Stand has bee subject to several treatments from 1988 to 2003. Area suffered moderate wind throw in 1988.
4110 - Sugar Maple Association	High Density Pole	36.5	90	81-110	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	6229 - Mixed lowland shrub	11.6	No	Unspecified	
4	720 - Exposed Rock	24.8	No	Unspecified	
6	720 - Exposed Rock	40.0	No	Unspecified	
14	720 - Exposed Rock	8.5	No	Unspecified	
17	6229 - Mixed lowland shrub	26.8	No	Unspecified	
18	720 - Exposed Rock	19.2	No	Unspecified	
20	11 - Low Intensity Urban	7.1	No	Unspecified	