



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32007

Entry Year 2016

Acreage: 1834.07580000

County Marquette

Management Area: Dead Horse Moraines

Revision Date: 2014-09-16

Stand Examiner: Theresa Sysol

Legal Description:

T44N R23W Section(s) 2, 3, 10, 11, 14, 15

Identified Planning Goals:

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

Soil and topography:

Level swamps and wetland drainages comprised of Carbondale, Tawas and Cathro-Ensley soils with pockets of upland flats and ridges, which are mainly Shoepac-Ensley, Nahama-Sundell, Shoepac-Trenary, and Shoepac-Reade soils.

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

Majority of State ownership is surrounded by a variety of private (both residential and seasonal) and industry lands.

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:

Contains both Werner Creek and tributary, as well as N. Branch Deer Creek and another un-named creek/drainage. 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 7 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 2, 3, 10, 11, 14 & 15, T44N-R23W, Marquette County
Surface sediments consist of medium-textured glacial till. There is insufficient data to determine the glacial drift thickness. The Ordovician Black River and Prairie du Chien Groups subcrop below the glacial drift. These formations are quarried for stone/dolomite in other areas of the State. The nearest gravel pit is located two miles to the southwest and potential appears to be good on upland areas. Abandoned iron mines are located ten miles to the west. This compartment has not been leased for metallic exploration. There is no economic oil and gas production in the UP.

Vehicle Access:

Co Rd 444 and Co Rd 533 provide main access, with several seasonal trails. Some private road access has been granted in the past, but in more recent years, has become difficult as landowners change.

Survey Needs:

Some interior corners may be required, although previous harvest lines have been established and accepted.

Recreational Facilities and Opportunities:

No established recreation sites. Recreation is mainly for hunting purposes.

Fire Protection:

Mostly lowland grounds - very little fire potential.

Additional Compartment Information:

The following reports from the Inventory are attached:

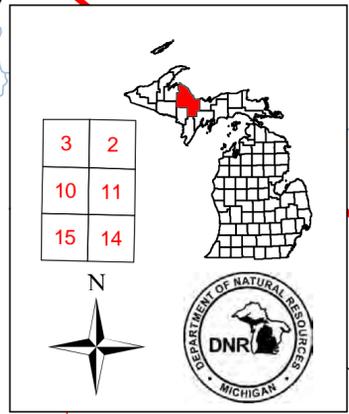
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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: 007
 T44N R23W Sec. 02, 03, 10, 11, 14, 15
 County: Marquette
 Unit: Gwinn
 YOE: 2016
 Acres: 1,835 GIS Calculated
 Examiner: Theresa Sysol
 Map Revised: 09/18/2014
 Map Phase: Pre-Review



Legend

- ✦ Remonumented Section Corners
- ◆ PLSS Corner
- Wood Post
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- 🏠 Cabin
- 🏡 House
- 🏠 Seasonal Dwelling
- ✕ Gate
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Treatments

- ✕✕ Selection (Group, Single Tree)
- Regeneration Survey

Forest Stands

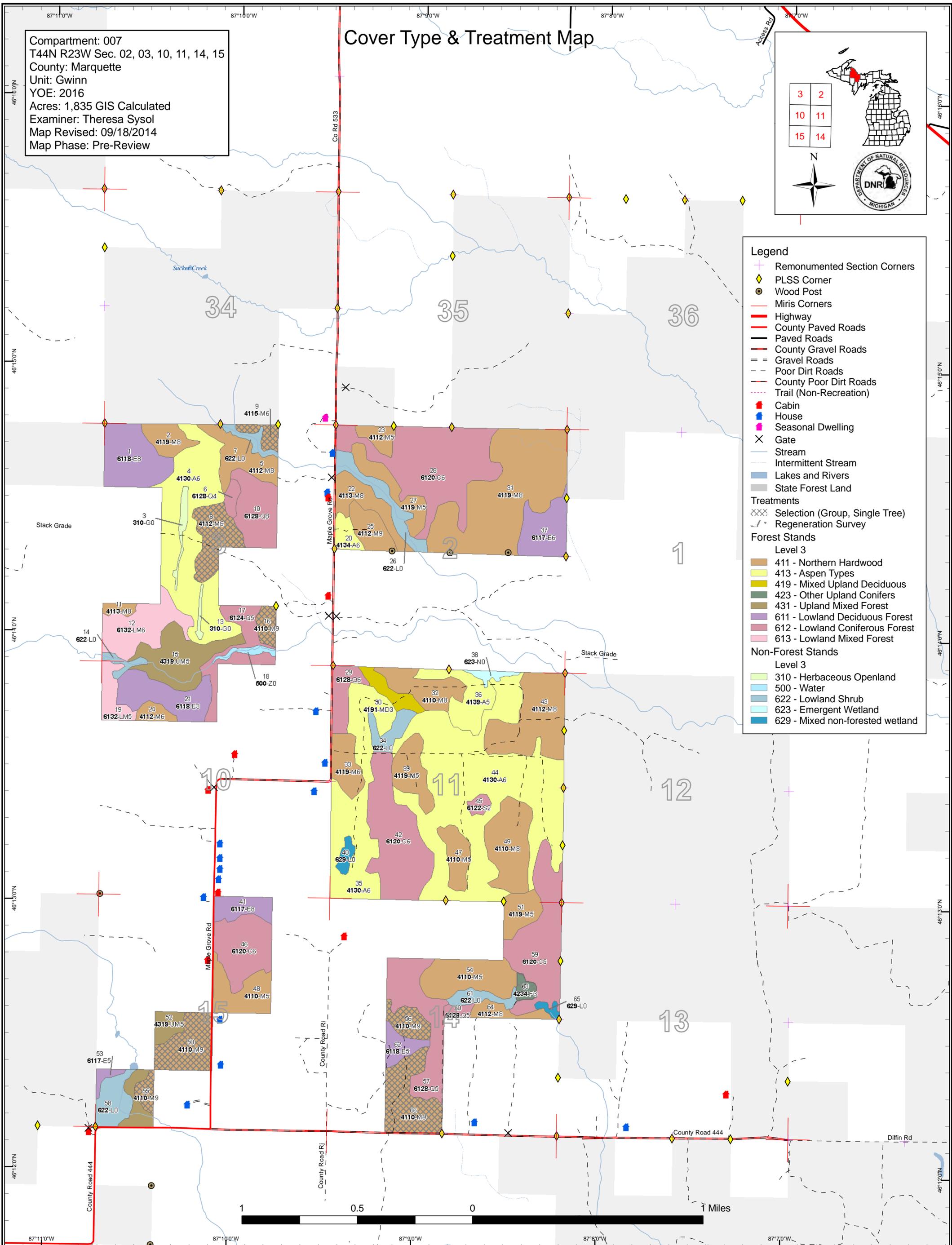
Level 3

- 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

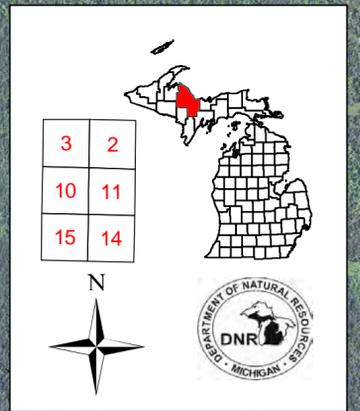
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland



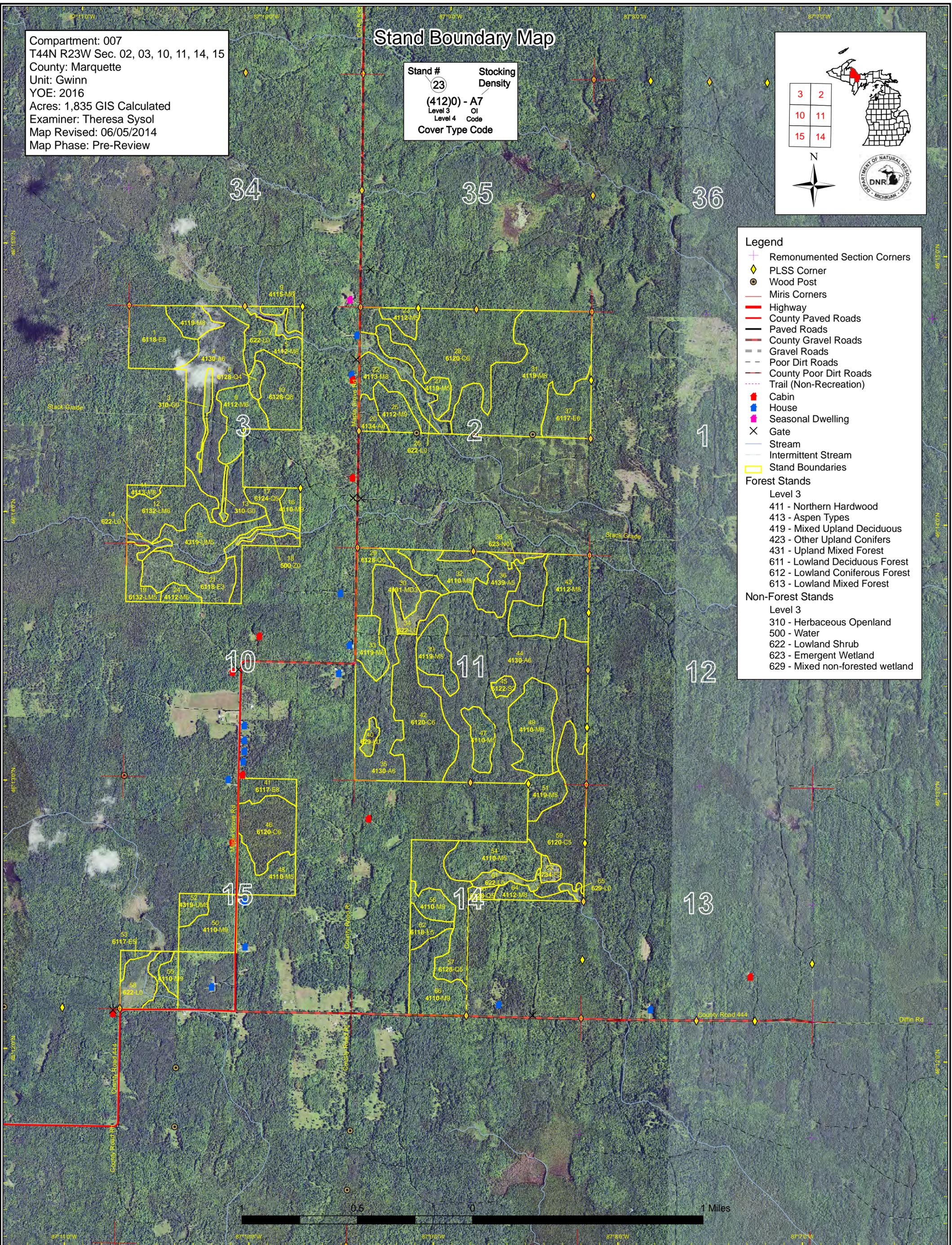
Stand Boundary Map

Compartment: 007
 T44N R23W Sec. 02, 03, 10, 11, 14, 15
 County: Marquette
 Unit: Gwinn
 YOE: 2016
 Acres: 1,835 GIS Calculated
 Examiner: Theresa Sysol
 Map Revised: 06/05/2014
 Map Phase: Pre-Review

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



- Legend**
- ⊕ Remonumented Section Corners
 - ◆ PLSS Corner
 - Wood Post
 - ⊗ Miris Corners
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trail (Non-Recreation)
 - 🏠 Cabin
 - 🏡 House
 - 🏠 Seasonal Dwelling
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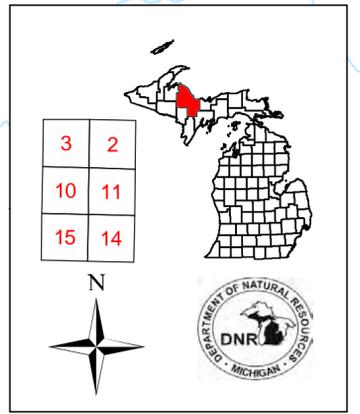


0.5 1 Miles

Special Conservation Areas & Site Conditions Map

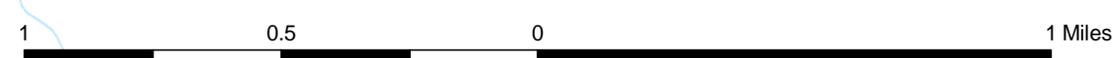
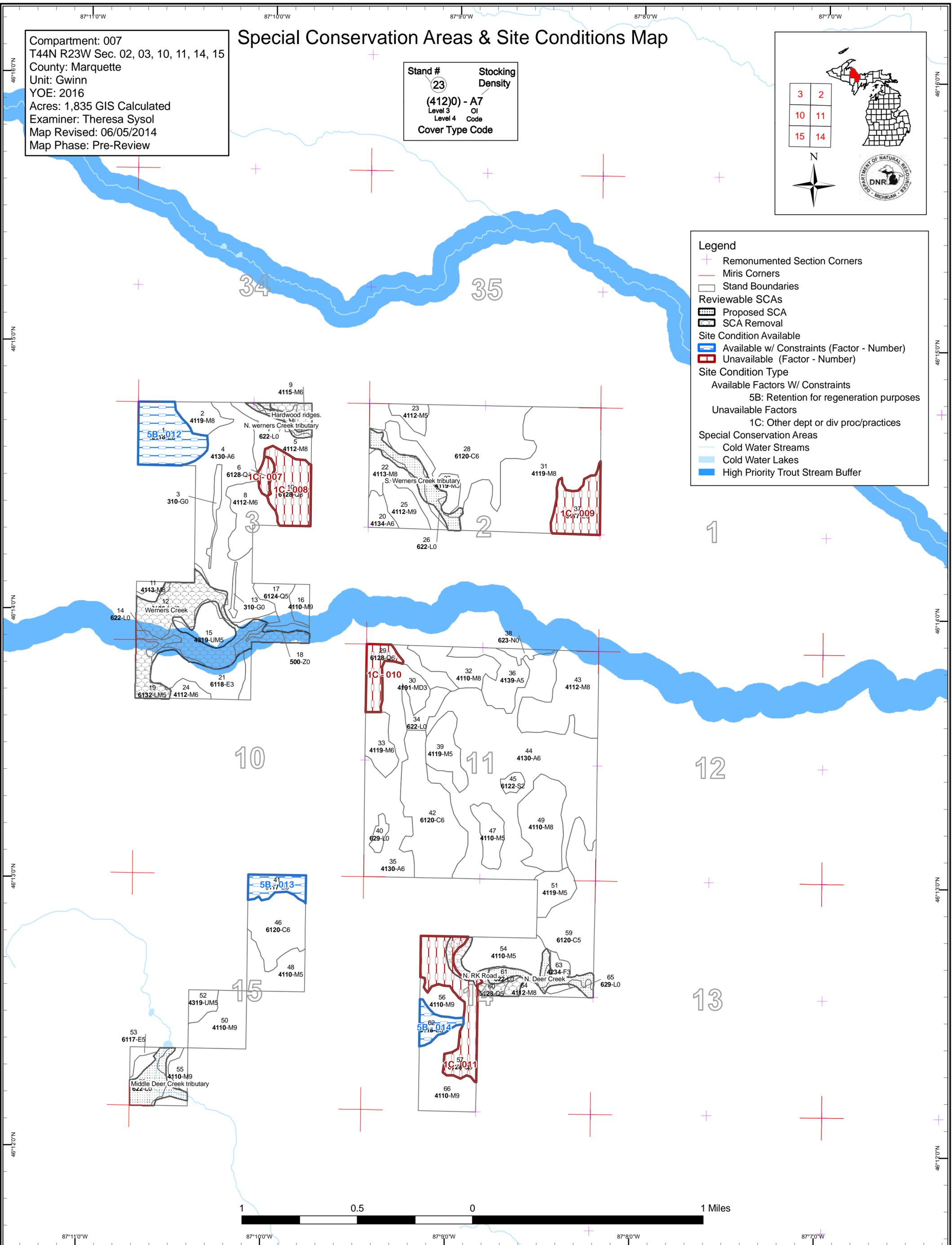
Compartment: 007
 T44N R23W Sec. 02, 03, 10, 11, 14, 15
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 Examiner: Theresa Sysol
 Map Revised: 06/05/2014
 Map Phase: Pre-Review

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



Legend

- Remunented Section Corners
- Miris Corners
- Stand Boundaries
- Reviewable SCAs
- Proposed SCA
- SCA Removal
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Site Condition Type
- Available Factors W/ Constraints
- 5B: Retention for regeneration purposes
- Unavailable Factors
- 1C: Other dept or div proc/practices
- Special Conservation Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer



87°11'0"W 87°10'0"W 87°9'0"W 87°8'0"W 87°7'0"W

46°15'0"N
46°14'0"N
46°13'0"N
46°12'0"N
46°11'0"N

46°15'0"E
46°14'0"E
46°13'0"E
46°12'0"E
46°11'0"E

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	110	317	0	0	0	0	0	0	0	0	0	0	426
Cedar	0	0	0	0	0	0	0	0	70	0	163	39	0	0	272
Herbaceous Openland	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Lowland Conifers	0	0	0	0	0	0	0	27	80	25	0	0	0	0	132
Lowland Deciduous	0	35	0	0	0	0	0	41	0	58	0	0	0	0	134
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	52	0	0	0	52
Lowland Shrub	78	0	0	0	0	0	0	0	0	0	0	0	0	0	78
Lowland Spruce/Fir	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Marsh	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Mixed Upland Deciduous	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11
Northern Hardwood	0	0	0	0	0	0	0	0	64	578	0	0	0	0	642
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	62	0	0	0	0	62
Upland Spruce/Fir	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Water	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	98	35	110	332	0	0	0	68	215	723	215	39	0	0	1835



Report 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2016

Compartment 007
Total Compartment Acres: 1,835

Acres by Treatment Type

Commercial Harvest - 132	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	132	0	0	0	0	132
	Total	0	132	0	0	0	0	132

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
8 32007008-Cut	27.5	4112 - Maple, Beech, Cherry Association	High Density Pole	95	81-110	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription Selectively thin hardwoods to 80-90 BA, using hardwood marking guidelines. Retention will include the under-represented species (i.e. yellow birch, cherry) - leave any cherry present. Look for opportunities to retain supercanopy YB and maple wildlife trees. Efforts can be made to try and regenerate these species also. Maintain species diversity. Do not cut any white pine. Create regeneration openings, where appropriate, and enhance existing regeneration areas.

Other Will require private access.

Comments:

Next Monitor for successful northern hardwood regeneration

Steps:

Proposed

Start Date: 10/01/2015

9 32007009-Cut	7.2	4115 - Y.Birch, Hemlock NH	High Density Pole	88	81-110	Harvest	Single Tree Selection	4115 - Y.Birch, Hemlock NH	Cmpt. Review Proposal
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Prescription Selectively thin hardwoods to 70-90 BA, using hardwood marking guidelines. Retention will include the under-represented species (i.e. yellow birch, cherry). Look for opportunities to retain supercanopy YB and RM wildlife trees. Maintain species diversity, leaving hemlock, white spruce, and cedar.

Other Access will be required across private lands. Avoid lowland areas, treating mainly higher knobs. Treatment may be best with compartment to the north - delay for now.

Comments:

Next Monitor for successful regeneration of mixed hardwood, hemlock.

Steps:

Proposed

Start Date: 10/01/2019

16 32007016-Cut	8.1	4110 - Sugar Maple Association	High Density Log	95	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Lightly thin hardwoods to 70-90 BA, using hardwood marking guidelines. Retention will include the under-represented species (i.e. yellow birch, cherry) - leave any cherry present. Look for opportunities to retain supercanopy wildlife trees. Efforts can be made to try and regenerate these species also. Maintain species diversity. Leave conifer edges for seed trees. Create regeneration openings, where appropriate, and enhance existing regeneration areas.

Other Access will be needed through private lands. Wildlife quality yellow birch, black cherry (split, forked) left from previous harvest with some larger maple - mostly a small log/pole stand, though. Heavier advanced regeneration in the northern third of stand (10-20' hts), but regeneration less visible further south.

Comments:

Next Monitor for successful regeneration of northern hardwoods.

Steps:

Proposed

Start Date: 10/01/2015

50 32007050-Cut	30.7	4110 - Sugar Maple Association	High Density Log	90	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Lightly thin hardwoods to 70-90 BA, using hardwood marking guidelines. Retention will include the under-represented species (i.e. yellow birch, cherry, basswood). Look for opportunities to retain supercanopy wildlife trees. Maintain species diversity. Create regeneration openings, where appropriate, and enhance existing regeneration areas.

Other

Comments:

Next Monitor for continued success of northern hardwoods regeneration.

Steps:

Proposed

Start Date: 10/01/2015



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
55	32007055-Cut	6.7	4110 - Sugar Maple Association	High Density Log	90	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Lightly thin hardwoods to 70-90 BA, using hardwood marking guidelines. Retention will include some of the under-represented species (i.e. yellow birch, cherry). Leave most basswood. Look for opportunities to retain supercanopy wildlife trees. Efforts can be made to try and regenerate these species also. Maintain species diversity. Create regeneration openings, where appropriate, and enhance existing regeneration areas.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u> Monitor for continued success of northern hardwood regeneration.</p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										

56	32007056-Cut	13.1	4110 - Sugar Maple Association	High Density Log	95	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Selectively thin hardwoods to 70-90 BA, using hardwood marking guidelines. Retention will include some of the under-represented species (i.e. yellow birch, cherry). Efforts can be made to try and regenerate these species also. Look for opportunities to retain supercanopy wildlife trees. Maintain species diversity. Leave all cedar and hemlock. Create regeneration openings, where appropriate, and enhance existing regeneration areas.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u> Conifers mainly along stand edges with smaller diameter hardwoods too. Potential for quality stems, but still contains heavy forking, stain, crook and other defects. Stand may require formal survey.</p> <p><u>Next</u> <u>Steps:</u> Monitor for successful northern hardwoods regeneration.</p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										

66	32007066-Cut	38.7	4110 - Sugar Maple Association	High Density Log	92	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Selectively thin hardwoods to 70-90 BA, using hardwood marking guidelines. Retention will include some of the under-represented species (i.e. yellow birch, cherry, basswood). Efforts can be made to try and regenerate these species also. Look for opportunities to retain supercanopy wildlife trees. Maintain species diversity. Create regeneration openings, where appropriate, and enhance existing regeneration areas.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u> Stand contains larger diameter maple (18-24") - some as cavity trees and low quality logs - with small diameter logs/larger poles (9-12") and various stages of sapling regeneration. Stand has future quality potential, but heavy defects yet (forks, cankers, crook, seams) to remove. Stand may require formal survey.</p> <p><u>Next</u> <u>Steps:</u> Monitor for successful regeneration of northern hardwoods.</p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										

63	32007063- Survey	4.8	42340 - Upland Spruce/Fir	High Density Sapling	4		Regeneration Survey	Next Inventory Cycle (natural regen)	42340 - Upland Spruce/Fir	Cmpt. Review Proposal
<p><u>Prescription</u> Do regeneration check to ensure adequate regeneration is present since harvest in 2010.</p> <p><u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										

**Total Treatment
Acreage Proposed: 136.8**



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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 007
Year of Entry 2016

Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	5B	1C
	Available	Not Available				
426	426		Aspen	426		
272	272		Cedar	272		
132	31	101	Lowland Conifers	31		101
134	105	28	Lowland Deciduous	38	67	28
52	52		Lowland Mixed Forest	52		
4	4		Lowland Spruce/Fir	4		
11	11		Mixed Upland Deciduous	11		
642	642		Northern Hardwood	642		
62	62		Upland Mixed Forest	62		
5	5		Upland Spruce/Fir	5		
1,741	1,611	130	Total Forested Acres	1,544	67	130
	93%	7%	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
007	Not Available	1C: Other dept or div proc/practices	5	5B: Maintain for regeneration purposes			
Comments: Residual cedar, hemlock following harvest.							
008	Not Available	1C: Other dept or div proc/practices	33				
Comments:							
009	Not Available	1C: Other dept or div proc/practices	28				
Comments:							

Report 5 – Site Conditions

Gwinn Mgt. Unit
Theresa Sysol : Examiner

Compartment 007
Year of Entry 2016

010	Not Available	1C: Other dept or div proc/practices	16
Comments:			
011	Not Available	1C: Other dept or div proc/practices	47
Comments:			
012	Available	5B: Maintain for regeneration purposes	41
Comments: Not much regeneration and no real volume to harvest.			
013	Available	5B: Maintain for regeneration purposes	15
Comments: Not much marketable volume to harvest, either.			
014	Available	5B: Maintain for regeneration purposes	11
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
N. werners Creek tributary	Spring-Seeps, Riparian Areas	Riparian Area	SCA	7.3
Comments Protect riparian watershed.				
N. Deer Creek	Spring-Seeps, Riparian Areas	Spring Seep	SCA	17.0
Comments part of N. Deer Creek watershed (origins) - some beaver activity				
Middle Deer Creek tributary	Spring-Seeps, Riparian Areas	Riparian Area	SCA	20.0
Comments Protect tributary of Deer creek				
S. Werners Creek tributary	Spring-Seeps, Riparian Areas	Riparian Area	SCA	21.1
Comments Protect tributary watershed				
Hardwood ridges.	Potential Old Growth		SCA Removal	10.1
Comments Adjust boundary to protect creek and remove remainder of stand from old growth.				
N. RK Road	Potential Old Growth		SCA Removal	19.2
Comments Does not meet old growth criteria. Follow management guidelines.				
Werners Creek	Spring-Seeps, Riparian Areas	Riparian Area	SCA Removal	89.1
Comments Protected by Static SCA (Springs, wetlands, riparian) and also by BMP's.				



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 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	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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6118 - Lowland Deciduous with Cedar	Medium Density Log	40.8	79	51-80	Fairly open stand with higher component of large, low quality yellow birch. Upland fringe is heavier balsam fir saplings.
2	4119 - Mixed Northern Hardwoods	Medium Density Log	14.1	94	51-80	"Stack Grade East" sale #035-00 (unit 4) - select cut Sept, 2002. Higher grounds with larger sawtimber and heavy maple regeneration dropping off into more of a pole stand, with less maple and more conifer regeneration. Noted a few dead hemlock snags.
4	4130 - Aspen	High Density Pole	100.9	25		"Cooper Camp Block" #002-88 - final harvest summer, 1988 and 1989. Western portion of stand drops into lowland aspen with more tagalder, cedar and spruce/fir - stand density not as high. Higher fir density, in places.
5	4112 - Maple, Beech, Cherry Association	Medium Density Log	25.9	95	51-80	"Stack Grade East" #035-00 (unit 2) - cut Sept, 2002. Rolling topography. Trace amount of cedar, black spruce. Small patches of aspen regeneration within.
6	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	5.1	97		"Stack Grade East" #035-00 (unit 1) - cut Sept, 2002. Residual cedar, hemlock and clumps of balsam fir with regeneration of maple, aspen, fir, spruce. Some dead cedar - wet pocket?
8	4112 - Maple, Beech, Cherry Association	High Density Pole	27.5	95	81-110	"Stack Grade East" #035-00 (unit 3) - select cut July, 2001. Also cut under #015-87-2 (removed aspen only) - cut Fall, 1987. Small wedge of low density fir/spruce and white pine, otherwise, no conifer component. Cherry with black knot. Some leatherwood.
9	4115 - Y.Birch, Hemlock NH	High Density Pole	7.2	88	81-110	Small stand with one higher knob of maple (130 BA), dropping into lower ground of hemlock, spruce/fir, birch, ash, maple mix. Possibly was cut with compartment to the north (except for knob). Should be managed with Compartment 1 to the north in the future.
10	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Log	32.9	83	81-110	Small portion of stand cut under #035-00 "Stack Grade East" (unit 5) - Sept-Oct, 2002. Remainder of stand transitions into fairly nice stand of hemlock with a trace of regeneration present. Cedar component becomes more of a subcanopy species with red maple, yellow birch stems mainly wildlife quality.
11	4113 - R.Maple, Conifer	Medium Density Log	4.3	95		"Werner Creek II" sale #002-96 (unit 1) - select cut summer, 1998.
12	6132 - Mixed Lowland Forest with Cedar	High Density Pole	38.2	104		Mix of lowland hardwoods with cedar, hemlock, fir and spruce.
15	4319 - Mixed Upland Forest	Medium Density Pole	41.4	95	51-80	"Werner Creek II" sale #002-96 - select and shelterwood cut summer, 1998. Low quality hardwood; some slightly higher grounds with larger maple, cherry (select cut), otherwise pole stand with heavy fir component and some low ash pockets (shelterwood cut).



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	4110 - Sugar Maple Association	High Density Log	8.1	95	81-110	"Werner Creek II" sale #002-96 (unit 3) - select cut July, 1998. Wildlife quality yellow birch, black cherry (split, forked) left with some larger maple - still more of a small log/pole stand, though. Heavier advanced regeneration in the northern third of stand (10-20' hts), but regeneration less visible further south (and browsed). Part of a larger hardwood type which continues onto private lands. Stand is fringed with fir along low ground edges, otherwise not much interior conifers.
17	6124 - Lowland Spruce-Fir	Medium Density Pole	26.9	70		Some flagging/dead balsam fir. Fairly sparse stand.
19	6132 - Mixed Lowland Forest with Cedar	Medium Density Pole	13.9	104		Beaver flooding within.
20	4134 - Aspen, Spruce/Fir	High Density Pole	8.7	27		Unit 1 of "533 Hardwood" #021-86 - cut summer, 1987. Roadside low ground left uncut, which contains more cedar, fir/spruce, maple, yellow birch and balsam poplar. Heavy fir understory present.
21	6118 - Lowland Deciduous with Cedar	High Density Sapling	34.7	15		"Werner Creek II" sale (unit 5,6) #002-96 - cut August, 1998. With residual cedar, hemlock, maple. Areas of cattails, native fragmites?
22	4113 - R.Maple, Conifer	Medium Density Log	22.0	88	51-80	part of Unit 3 "K-2 Block" sale #001-06 - cut Sept, 2008 and "533 Hardwood" #021-86 - cut 1988. Rolling terrain, mixing high and low grounds. Some of the higher knobs contain better maple, less fir/hemlock.
23	4112 - Maple, Beech, Cherry Association	Medium Density Pole	9.1	88	81-110	Unit 1 of "K - 2 Block" sale #001-06 - select cut Sept, 2008. Stand is primarily pole-sized maple with large diameter yellow birch with full canopy/crowns. Regeneration gaps created. Trace cedar along stand edges.
24	4112 - Maple, Beech, Cherry Association	High Density Pole	6.8	95	51-80	"Werner Creek II" sale #002-96 (unit 4) - select cut August, 1998. Trace amount of conifers with some large diameter maple. Mostly a small pole stand. Little new maple regeneration visible yet.
25	4112 - Maple, Beech, Cherry Association	High Density Log	16.6	90	81-110	Unit 3 of "K-2 Block" sale #001-06 - select cut 2008. Also cut under "533 Hardwood" #021-86 in 1988. Conifers mainly along stand edges. Potential for quality, although numerous defects are still present within stand (forks, seams, cankers, bore damage).
27	4119 - Mixed Northern Hardwoods	Medium Density Pole	20.2	91	51-80	Unit 2 "K - 2 Block" sale #001-96 - cut Sept, 2008 and also "533 Hardwood" #021-86 - thinned 1988. Some uprooted trees noted. Heavier fir regeneration than adjacent hardwood stand.
28	6120 - Lowland Cedar	High Density Pole	98.2	102	81-110	Some portions heavier to deciduous (maple, ash, yellow birch), especially at hardwood transitions (small knob cut with adjacent pre-inv stand 23). Some dead balsam fir noted (previous budworm kill).



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
29	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	16.0	96		Permit #007-84-2 - cut larger timber in 1986, mainly higher spots (with more maple).
30	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	11.1	33		Permit #006-72A - cut early 80's. Wet site. Trace amount of elm noted.
31	4119 - Mixed Northern Hardwoods	Medium Density Log	122.9	94	81-110	"Sucker Creek Hardwood" #003-96 - select cut Sept, 1999. W. lobe of stand also cut under #021-86 "533 Hardwood" around 1990. A few legacy yellow birch, maple within. Includes some wet, low swale areas, which are heavier to hemlock, spruce, yellow birch - very wet springtime conditions. Intermittent drainage runs through north end. Maple regeneration is thick and thin; areas with only 2' seedlings and other portions with 3 - 10' seedlings. Black knot noted on cherry regen. Ground cover of spring beauties, club moss, trout lily noted.
32	4110 - Sugar Maple Association	Medium Density Log	25.1	93	81-110	Unit 2 "Lane's Corner Hardwood" #019-86 - select cut winter 1989-90. Heavy defects. Some legacy maple within.
33	4119 - Mixed Northern Hardwoods	High Density Pole	18.0	95	81-110	Permit #006-81 - select cut summer, 1981. Fairly low quality yet; red maple with seams, forks - some dead. Sugar maple is overall smaller diameter and contains borer damage. Fingers of lower ground within with more ash, fir. Trace amount of cedar, black cherry noted. Edges of stand adjoining aspen type contain more paper birch, yellow birch and cherry regeneration.
35	4130 - Aspen	High Density Pole	80.6	35	51-80	Permit #006-72A - cut 1979 -1982. Some sparse pockets. Hypoxylon within stand; some dead stems. Good quantity of yellow birch noted. North end heavier aspen.
36	4139 - Aspen, Mixed Deciduous	Medium Density Pole	26.1	33		Permit #006-72A - Winter cut 1978 - 1980. Semi-open stand, in places; wet ground. Ground cover of trout lily, spring beauties noted.
37	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	28.3	92		Low ridges with hemlock patches and narrow swales with small ash, cedar, and yellow birch pole-sized timber. Trace amount of black cherry noted.
39	4119 - Mixed Northern Hardwoods	Medium Density Pole	22.1	95	51-80	Unit 1 "Section 11 Hardwood" #202-07 - select cut Jan, 2008. Also cut under "Lane's Corner Hardwood" #019-86 (unit 3) - winter, 1989-90. Mainly pole stand, but some larger diameter, wildlife quality trees - old remnant basswood, yellow birch noted. Not seeing much maple regeneration, only ironwood; south end and old road edges do have a slightly higher sugar maple regeneration component.
41	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Log	14.8	99	81-110	Cut under permit #32/75A "533 Block". Slightly higher ground with more maple, hemlock. Contains some larger ash, dead yellow birch, blowdown timber, especially on wetter grounds.
42	6120 - Lowland Cedar	High Density Pole	70.4	81	51-80	Some cutting under permit #006-72A noted in file. Scattered dead standing balsam fir (age and budworm). Larger diameter cedar along stand edges grading into smaller interior sizes. Low site index.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	4112 - Maple, Beech, Cherry Association	Medium Density Log	56.3	93	51-80	Unit 2 - 4 "Section 11 Hardwood" #202-07 - cut Feb-March, 2009 and Unit 1 "Lane's Corner Hardwood" #019-86 cut winter 1989-90. FTP W32-708: underplant hemlock, Spring 2009.
44	4130 - Aspen	High Density Pole	210.1	34	51-80	Permit #006-72A - cut winter months 1978 - 1982. Some smaller interior stems (4-5" dbh average) and open spots with slightly heavier balsam fir. Hypoxylon present and some dead stems; quite a bit of breakage. Yellow birch regeneration, especially along hardwood edges. Trace amount of cedar present.
45	6122 - Black Spruce	Medium Density	4.3	35		Lowland conifer depression within aspen type - more of a tree bog? Cut with adjacent aspen stand. Trace amount of poles.
46	6120 - Lowland Cedar	High Density Pole	39.2	113	171-200	Thick cedar interior with occasional tamarack, yellow birch and ash pockets. Dead balsam fir. Some uprooting. Birch, balsam poplar regeneration mainly noted along road edges.
47	4110 - Sugar Maple Association	Medium Density Pole	16.1	95	81-110	Unit 5 "Section 11 Hardwood" #202-07 - cut Feb-March, 2009. Also cut as Unit 4 "Lane's Corner Hardwood" #019-86 - cut winter 1989-90 (with poor winter conditions noted prior to harvest).
48	4110 - Sugar Maple Association	Medium Density Pole	26.0	87	51-80	Narrow ridge of higher ground with larger diameter maple which slopes off into smaller poles - lower BA, lower quality and some lower grounds. Select cut under permit #32/75A - Feb, 1976 and "Mayward's Camp Hardwood" (unit 5) - cut Nov-Dec, 1997. Several maple wildlife quality snag trees.
49	4110 - Sugar Maple Association	Medium Density Log	41.2	95	81-110	Unit 6,7 "Section 11 Hardwood" #202-07 - select cut Feb-March, 2009 and also Unit 5 "Lane's Corner Hardwood" #019-86 cut winter 1989-90.
50	4110 - Sugar Maple Association	High Density Log	30.7	90	81-110	Larger maple with split tops, heavy forking, cavities, seams - full crown coverage. Little to no conifer component, except along roadway. Good sapling coverage - not much in the pole size class. Trace amount of red maple, ash along lower stand edges. Select cut under permit #32/75A - Feb, 1976 and "Mayward's Camp Hardwood" #004-96 - spring, 1997 (unit 4).
51	4119 - Mixed Northern Hardwoods	Medium Density Pole	16.0	95		S. portion of Unit 7 "Section 11 Hardwood" #202-07 - cut March, 2009. More aspen mixed within; some lowland grounds also. Small opening along private line.
52	4319 - Mixed Upland Forest	Medium Density Pole	20.4	94	51-80	SWSW portion shelterwood cut under permit #004-96 (unit 1) in 1997 and also contains un-named drainage/creek. Roadside visual buffer left, which contains low quality maple. Some dead balsam fir and overmature aspen noted, esp along Co Rd 444. Trace amount of ironwood, elm.
53	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	3.8	94	51-80	Mainly a lowland stand, although a small patch of maple poles can be found along private line, which is not easily accessible from the State side.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
54	4110 - Sugar Maple Association	Medium Density Pole	37.6	95	81-110	"Five Spot Block" #005-96 (unit 4,5) - select, shelterwood cut(s) Feb, 2000. Some 3 - 5' regeneration just visible at snow level. Middle portion of stand was shelterwood cut unit - lower BA's. East portion (across drainage within stand) harvested under permit #003-06 "Pole Line Sale" (Unit 2) - cut Feb-March, 2010.
55	4110 - Sugar Maple Association	High Density Log	6.7	90	81-110	Select cut under permit #32/75A - Feb, 1976 and "Mayward's Camp Hardwood" #004-96 (unit 2) - 1999.
56	4110 - Sugar Maple Association	High Density Log	13.1	95	81-110	"Five Spot Block" #005-96 (unit 3) - select cut Feb, 1998. Also cut under permit #4/76 - summer, 1976 (mainly select cut elm). Conifers mainly along stand edges with smaller diameter hardwoods too. Potential for quality stems, but still contains heavy forking, stain, crook and other defects. Ready for light cut.
57	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	47.3	83	81-110	Overmature aspen with heavier poles of cedar, hemlock. Fairly open underneath. Further north, stand becomes more ash saplings with cedar poles/saplings.
59	6120 - Lowland Cedar	Medium Density Pole	64.6	101		Small portion within section 11 cut winter, 1981 under permit #006-72/A. N. Branch Deer Creek runs through stand.
60	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	4.0	92	81-110	Stand mainly cedar, hemlock and mixed deciduous.
62	6118 - Lowland Deciduous with Cedar	Medium Density Pole	11.3	95	51-80	"Five Spot Block" #005-96 (unit 2) - shelterwood cut Jan, 1998. Also cut under permit #4/76 - summer, 1976 (mainly elm). Slightly lower grounds than adjacent hardwood stands - heavier conifers and intermittent drainage (which feeds into cedar type to the east).
63	42340 - Upland Spruce/Fir	High Density Sapling	4.8	4		Harvested as 'Pole Line Sale' #003-06 (unit 3) - cut Feb, 2010. Left any residual cedar, hemlock and pine present.
64	4112 - Maple, Beech, Cherry Association	Medium Density Log	10.0	95		"Pole Line Sale" #003-06 (unit 1) - cut March, 2009 and Feb, 2010. Poor site - access issues.
66	4110 - Sugar Maple Association	High Density Log	38.7	92	81-110	Unit 1 "Five Spot Block" #005-96 - select cut summer, 1999. Also #04/76 (north end) cut summer, 1976 removing mainly elm and #029/75 (south 40) cut winter 1975-76. Stand contains larger diameter maple (18-24") - some as cavity trees and low quality logs - with small diameter logs/larger poles (9-12") and various stages of sapling regeneration. Stand has future quality potential, but heavy defects yet (forks, cankers, crook, seams) to remove. Possibly create further gaps. Very little conifer component.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	3102 - Grass	5.4	No	Unspecified	W32-419: cleared 7/1991 and seeded 7/1992.
7	6220 - Alder/willow	6.5	No	Unspecified	Contains tributary of Werner Creek. Some flooded timber - beaver activity.
13	3102 - Grass	2.2	Yes	Low	W32-419: cleared 7/1991 and seeded 7/1992.
14	6220 - Alder/willow	4.9	No	Unspecified	Corridor along and containing Werner Creek.
18	50 - Water	4.1	No	Unspecified	Werner Creek and some beaver impacted areas.
26	6220 - Alder/willow	19.2	No	Unspecified	Tagalder with scattered timber. Contains creek/drainage.
34	6220 - Alder/willow	11.9	No	Unspecified	Contains dead cedar.
38	6239 - Mixed Emergent Wetland	4.2	No	Low	Pond. Beaver activity - timber flooding and cutting of aspen.
40	629 - Mixed non-forested wetland	4.8	No	Unspecified	
58	6220 - Alder/willow	18.5	No	Unspecified	contains portion of Deer Creek
61	6220 - Alder/willow	9.1	No	Unspecified	Contains feeder of N. Branch Deer Creek
65	629 - Mixed non-forested wetland	2.8	No	Unspecified	contains N. Branch Deer Creek