



**Gwinn Forest Management Unit
Compartment Review Presentation
Compartment 008 Entry Year: 2014
Compartment Acreage: 1,143 County: Marquette**

Revision Date: 8/20/12

Stand Examiner: Theresa Sysol

Legal Description: T44N R23W Section(s) 1-3

RMU (if applicable): Dead Horse Moraines Management Area

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

Soil and Topography: Ranges from level swamps and wetland drainages to only slightly undulating upland terrain. Some steeper stream banks present on both Sucker and Werner Creeks. Most swamp drainages occur in a north-south pattern. Major soil types include: Shoepac-Ensley complex, Shoepac-Reade, Charlevoix-Ensley, and Cathro-Ensley muck.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Private land along the north, south, and east portions of compartment. Most is generally held for recreational use of deer hunting, although some industry lands adjoin where timber production is the primary objective.

Unique, Natural Features: No known MNFI concerns. Potential for *Gomphus quadricolor* (rapids clubtail) along Werner Creek which passes through several northern hardwood stands. Potential for *calypso bulbosa*, round leaved orchid, limestone oak fern and *Cypripedium arietinum* in cedar swamp. Potential for rare plants of rich mesic forests: *Carex assiniboinensis*, showy orchis, Ginseng, Goblin Fern. Potential for red-shouldered hawk. Potential for wood turtle in Werner Creek.

Archeological, Historical, and Cultural Features: None identified with HAL.

Special Management Designations or Considerations: Riparian corridor stands and natural hemlock and white pine cover types providing diversity.

Watershed and Fisheries Considerations: Sucker Creek, Werner Creek and the north branch of Deer Creek.

Wildlife Habitat Considerations: Featured species includes black bear, white-tailed deer, pileated woodpecker and ruffed grouse

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of medium-textured glacial till. There is insufficient data to determine the glacial drift thickness. The Ordovician Trenton and Black River 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 one mile to the northeast of the compartment and potential appears to be good. Abandoned iron mines are located twelve 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: Access to the south portion via McFarland and Co Rd 444; seasonal access from the west off Co Rd 533. Some of this access is blocked by private lands. Access to the NE is from Johnson Road in Alger County, which is also restricted by private lands. Any interior access is seasonally dependent.

Survey Needs: the north half of Section 1

Recreational Facilities and Opportunities: No formal trails or other developed recreational facilities, although hunting, fishing and berry picking opportunities exist.

Fire Protection: Low risk area

Additional Compartment Information:

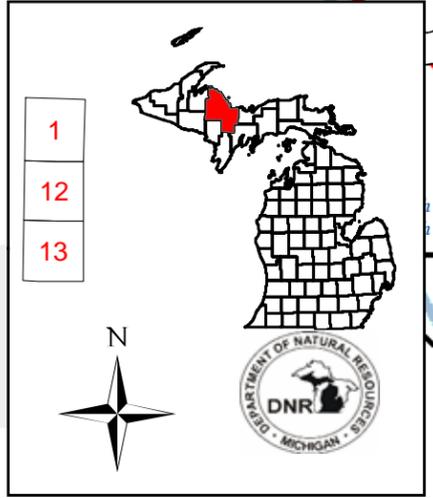
- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Cover Type by Management Objective**
 - ◆ **Compartment Volume Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

- **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: 008
 T44N R23W Sec. 1, 12, 13
 County: Marquette
 Unit: Gwinn
 YOE: 2014
 Acres: 1,143 GIS Calculated
 Examiner: Theresa Sysol
 Map Revised: 08/29/2012
 Map Phase: Pre-Review

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



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)
- - Closed Roads
- Streams and Rivers
- Dam
- Structures
- Lakes and Rivers
- State Forest Land

Treatments

- Selection (Group, Single Tree)

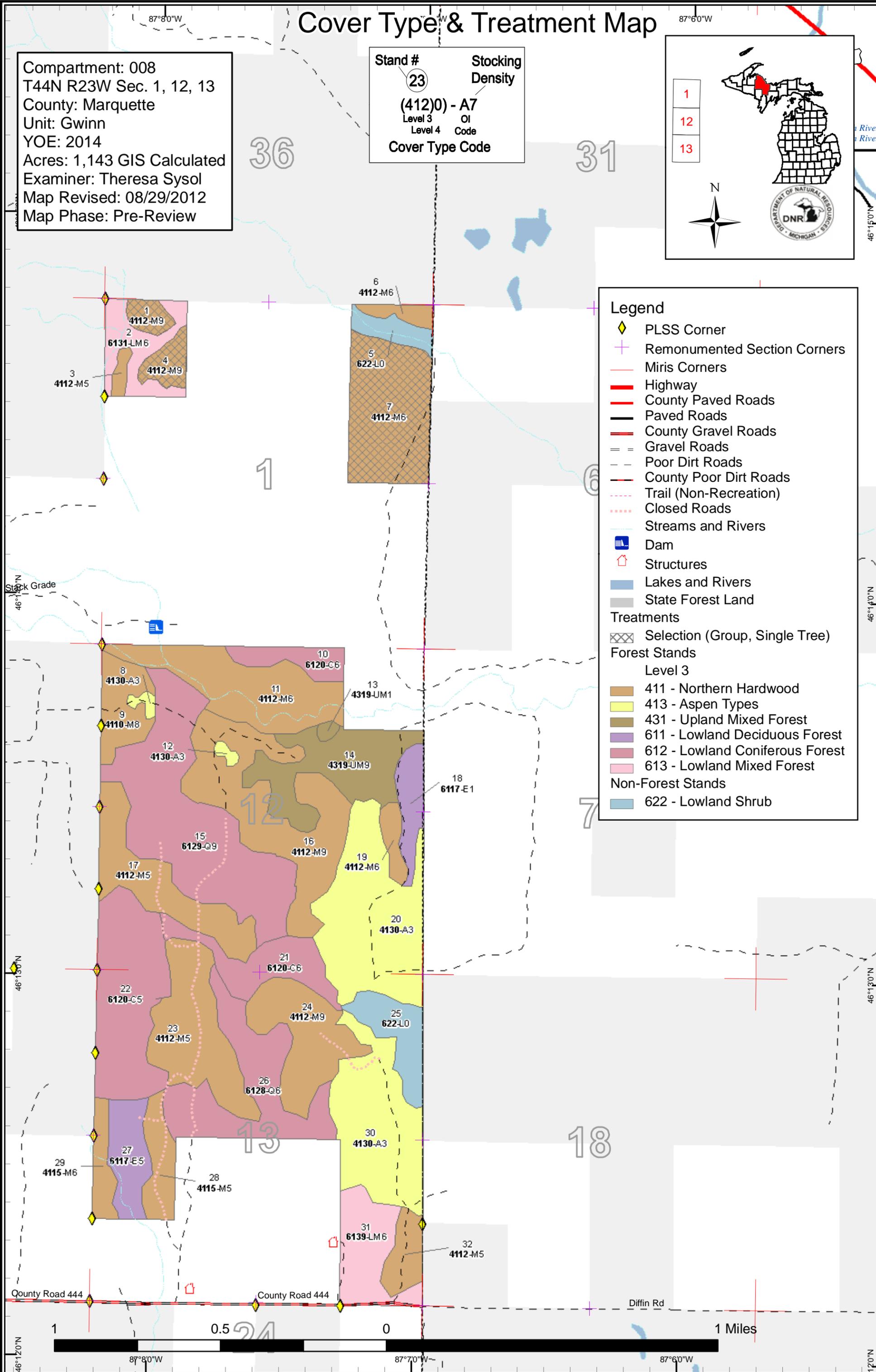
Forest Stands

Level 3

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

Non-Forest Stands

- 622 - Lowland Shrub



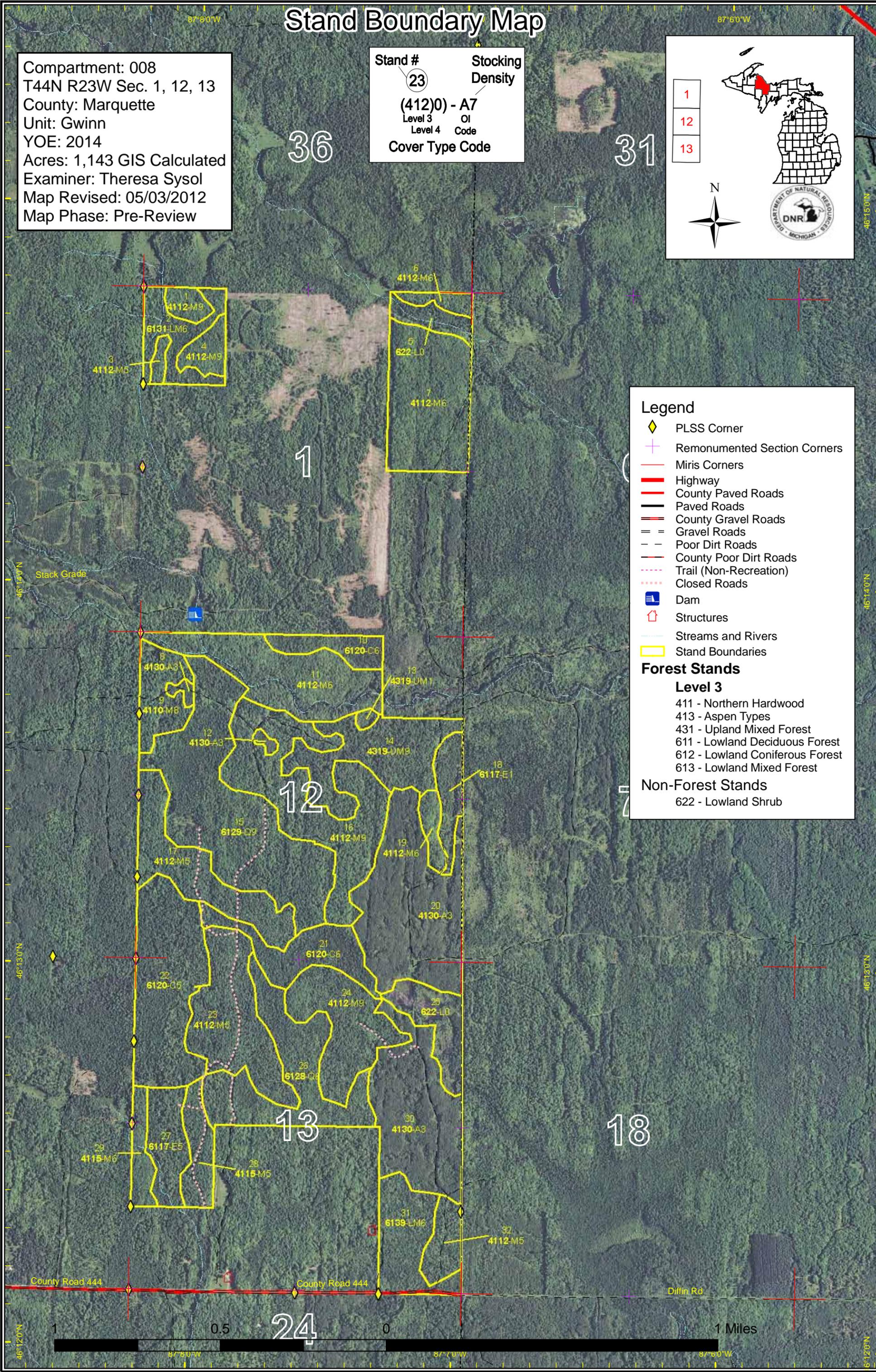
1 0.5 0 1 Miles

46°12'0"N 87°80'W 87°70'W 87°60'W 46°12'0"N

Stand Boundary Map

Compartment: 008
 T44N R23W Sec. 1, 12, 13
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 Map Revised: 05/03/2012
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Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
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Legend

- PLSS Corner
- Remonumented Section Corners
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
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- Trail (Non-Recreation)
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- Structures
- Streams and Rivers
- Stand Boundaries

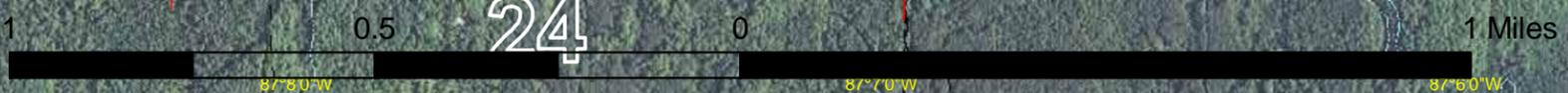
Forest Stands

Level 3

- 411 - Northern Hardwood
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Non-Forest Stands

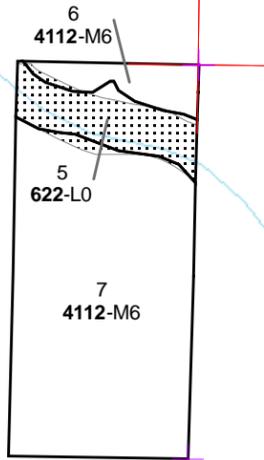
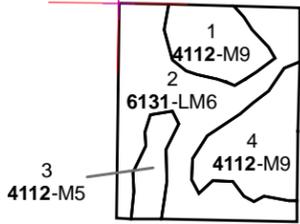
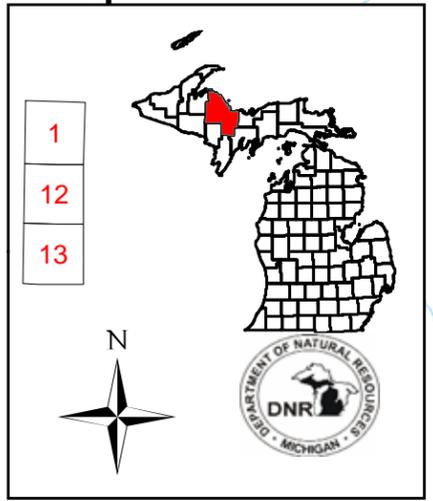
- 622 - Lowland Shrub



Dedicated & Proposed Special Conservation Area Map

Compartment: 008
 T44N R23W Sec. 1, 12, 13
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 YOE: 2014
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 Examiner: Theresa Sysol
 Map Revised: 08/29/2012
 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 - Special Conservation Area
- Dedicated Special Conservation Areas
- Cold Water Streams

Forest Stands

Level 3

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

Non-Forest Stands

- 622 - Lowland Shrub

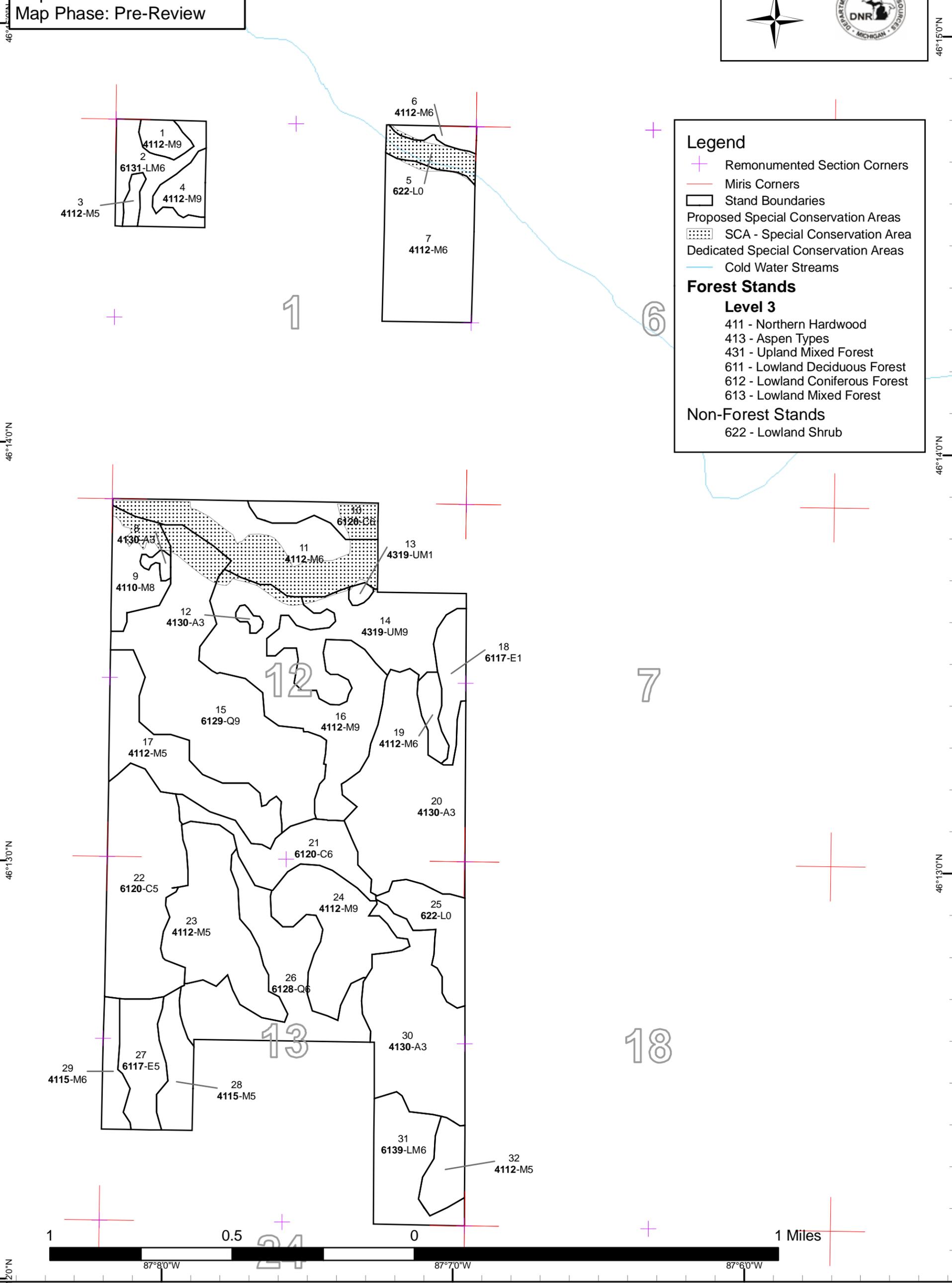


Table 1 – Total Acres by Cover Type and Age Class



	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	0	4	162	0	0	0	0	0	0	0	0	0	0	0	166
Cedar	0	0	0	0	0	0	0	0	0	0	47	0	0	74	122
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	0	120	0	64	184
Lowland Deciduous	0	0	16	0	0	0	0	0	0	0	0	0	0	24	41
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60
Lowland Shrub	36	0	0	0	0	0	0	0	0	0	0	0	0	0	36
Northern Hardwood	0	0	0	0	0	0	0	0	23	75	0	0	0	381	479
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	56	56
Total	36	4	178	0	0	0	0	0	23	75	47	120	0	660	1143



Table 2 – Proposed Treatment Summaries

Gwinn Mgt. Unit
Year of Entry 2014

Compartment 008
Total Compartment Acres: 1143

Acres by Treatment Type

Commercial Harvest - 86	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Northern Hardwood	0	86	0	0	0	0		86
Total	0	86	0	0	0	0		86

**Table 3 -- Treatments Prescribed
with No 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
Comments:

Next
Steps:

Proposed
Start Date: #Error

**Total Treatment
Acreage Proposed: 0**



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	32008001-Cut	7.5	4112 - Maple, Beech, Cherry Association	High Density Log	95	111- 140	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription</u> Mark hardwoods to 80-90 BA, using all applicable guidelines, and maintain species diversity. Create regeneration gaps, where appropriate, and										
<u>Specs:</u> release any current regeneration. Retain some of the oversized, wildlife-quality maple and birch as legacy trees. Retain snag trees. Retain any hemlock, white pine and white spruce.										
<u>Other</u> --Theresa Sysol : 08/20/2012 comments: per WLD at pre-review - promote blk cherry for mast, where possible, for bear										
<u>Comment:</u> Possibly negotiate with sale under contract to the north (#001-10) due to access, although drainage crossing/BMP's may still be an issue.										
<u>Next</u> Monitor regeneration, per work instructions. Acceptable regeneration includes mix of hardwood species.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
<u>Limiting Factor and No</u> 2H: Blocked by physical obstacle										
<u>Treatment Reason</u> (e.g. upland stand in a lowland area)										
4	32008004-Cut	10.8	4112 - Maple, Beech, Cherry Association	High Density Log	80	81-110	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription</u> Mark hardwoods to 80-90 BA, using all applicable guidelines, and maintain species diversity. Create regeneration gaps, where appropriate, and										
<u>Specs:</u> release any current regeneration. Retain some of the oversized, wildlife-quality maple and birch as legacy trees. Retain snag trees. Retain any hemlock, white pine and white spruce.										
<u>Other</u> --Theresa Sysol : 08/20/2012 comments: per WLD at pre-review - promote blk cherry mast, where possible, for bear										
<u>Comment:</u> Access to stand is restricted by private.										
<u>Next</u> Monitor regeneration, per work instructions. Acceptable regeneration includes mix of hardwood species.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
<u>Limiting Factor and No</u> 2B: Unknown if access through										
<u>Treatment Reason</u> adjacent landowner(s) is possible										
7	32008007-Cut	67.3	4112 - Maple, Beech, Cherry Association	High Density Pole	90	111- 140	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription</u> Mark hardwoods to 80-90 BA, using all applicable guidelines, and maintain species diversity. Create regeneration gaps, where appropriate, and										
<u>Specs:</u> release any current regeneration. Retain some of the oversized, wildlife-quality maple and birch as legacy trees. Retain snag trees. Retain any hemlock, white pine and white spruce.										
<u>Other</u> --Theresa Sysol : 08/20/2012 comments: per WLD at pre-review - promote blk cherry for mast, where possible, for bear										
<u>Comment:</u> Will require private access. Prescribed last entry, but never treated due to access.										
<u>Next</u> Monitor regeneration, per work instructions. Acceptable regeneration includes mix of hardwood species.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
<u>Limiting Factor and No</u> 2B: Unknown if access through										
<u>Treatment Reason</u> adjacent landowner(s) is possible prescribed last entry cycle also, but never treated due to access										

**Total Treatment
Acreage Proposed: 85.6**

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	4112 - Maple, Beech, Cherry Association	High Density Log	7.5	95	111-140	Isolated hardwood stand fringed with conifers and intermittent drainage. Very restrictive access.
2	6131 - Hemlock, White Pine, Maple, Birch	High Density Pole	24.4	Uneven Age		
3	4112 - Maple, Beech, Cherry Association	Medium Density Pole	3.7	Uneven Age	81-110	Mainly a pole/sapling stand with large diameter YB, RM and H within.
4	4112 - Maple, Beech, Cherry Association	High Density Log	10.8	80	81-110	Rolling terrain - lowland conifer edges.
6	4112 - Maple, Beech, Cherry Association	High Density Pole	6.7	Uneven Age		Small parcel of land against Sucker Creek
7	4112 - Maple, Beech, Cherry Association	High Density Pole	67.3	90	111-140	Heavy component of black cherry, which is in decline. Contains black knot. Low quality sapling maple regeneration, and no seedling ground cover. Fingers of lower, wetter areas with hemlock, birch run through stand. Ground cover noted includes club moss, trout lily.
8	4130 - Aspen	High Density Sapling	2.5	13		T. sale #001-94 "Werner Creek Hardwood Block" (Unit 8) - cut 1998.
9	4110 - Sugar Maple Association	Medium Density Log	23.9	Uneven Age	51-80	T. sale #001-94 "Werner Creek Hardwood Block" (Unit 7) - selection cut 1998 and t. sale #035-04 "Creek Corner Hardwood" - select cut November, 2005.
10	6120 - Lowland Cedar	High Density Pole	15.1	100		
11	4112 - Maple, Beech, Cherry Association	High Density Pole	63.1	Uneven Age	81-110	Steeper, rolling terrain, especially near Werners Creek.
12	4130 - Aspen	High Density Sapling	1.9	13		T. sale #001-94 "Werner Creek Hardwood Block" (unit 8) - cut 1998.
13	4319 - Mixed Upland Forest	Low Density Sapling	1.9	Uneven Age		"Werner Creek Hardwood Block" #001-94 (part of Unit 8) - clearcut Sept, 1998. Leave tree marked WS, maple and birch. Also any hemlock and cedar were left.
14	4319 - Mixed Upland Forest	High Density Log	54.4	Uneven Age	81-110	"Werner Creek Hardwood Block" #001-94 (Unit 1,4). Low quality red maple - poor sapling/poles. Very subtle changes in topography.
15	6129 - Mixed Coniferous Lowland Forest	High Density Log	120.1	110	111-140	
16	4112 - Maple, Beech, Cherry Association	High Density Log	86.5	Uneven Age	81-110	"Werner Creek Hardwood Block" #001-94 (units 3,4,5,6) - cut May, 1998 - Jan, 1999.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
17	4112 - Maple, Beech, Cherry Association	Medium Density Pole	48.5	Uneven Age	81-110	T. sale #001-94 "Werner Creek Hardwood Block" (Unit 7) - cut 1998 and t. sale #003-04 "North Branch Deer Creek" (Units 8-10) - cut Feb, 2008. Trace amount of quaking aspen (overmature and dying) and ash noted.
18	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Sapling	16.2	25		Unit 1 of t. sale #036-84 - cut Feb, 1986. Contains both high and low grounds.
19	4112 - Maple, Beech, Cherry Association	High Density Pole	8.1	Uneven Age	81-110	Mainly a small pole stand, except for south end. Part of t. sale #001-94 "Werner Creek Hardwood Block" (unit 2) - cut 1998-99.
20	4130 - Aspen	High Density Sapling	90.0	25		"444 Block" t. sale #036-84 (unit 1-3) - cut Feb, 1987. Some open areas with S/F, hemlock, WP.
21	6120 - Lowland Cedar	High Density Pole	32.2	100	141-170	
22	6120 - Lowland Cedar	Medium Density Pole	74.2	Uneven Age		East portion of stand treated as "North Deer Creek Block" #002-94 (Units 1, 3-5) - shelterwood cut 1997 (March - Oct)
23	4112 - Maple, Beech, Cherry Association	Medium Density Pole	58.7	Uneven Age	51-80	"North Branch Deer Creek" sale #003-04 (Unit 5-7) - cut Jan/Feb, 2008
24	4112 - Maple, Beech, Cherry Association	High Density Log	48.0	Uneven Age	81-110	"North Branch Deer Creek" sale #003-04 (units 1 - 3) - thinned Jan, 2006. Some rutting issues due to warm temperatures during harvest.
26	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	64.0	Uneven Age		Lower, wetter ground than adjacent stand.
27	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	24.4	Uneven Age		portion cut under "North Deer Creek Block" sale #002-94 (unit 2) - cut Feb, 2007. Low quality hardwood stems.
28	4115 - Y.Birch, Hemlock NH	Medium Density Pole	18.6	Uneven Age		"North Branch Deer Creek" sale #003-04 (unit 4) - cut Fall, 2006.
29	4115 - Y.Birch, Hemlock NH	High Density Pole	12.5	85		
30	4130 - Aspen	High Density Sapling	71.5	25		"444 Block" sale #036-84 (unit 3 - 5) - cut Jan-Feb, 1986.
31	6139 - Mixed Lowland Forest	High Density Pole	36.0	Uneven Age	111-140	Difficult ground to operate on, but could possibly remove older spruce, fir, aspen and most red maple.
32	4112 - Maple, Beech, Cherry Association	Medium Density Pole	15.0	Uneven Age	51-80	"444 County Line Hardwood" sale #004-04 - cut October, 2005.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
5	6220 - Alder/willow	11.1	No	Unspecified	Low density trees with tagalder - contains Sucker Creek
25	6220 - Alder/willow	24.5	No	Unspecified	Beaver flooding of roadbed and associated timber (cedar snags/dead). Still some timbered edges.

**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	32008_SCA	64.1	SCA - Riparian corridor - No treatments within corridor of Sucker and Werner creeks to protect stream quality and prevent sedimentation. Wildlife travel corridor also.



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.