

CADILLAC FOREST MANAGEMENT UNIT**COMPARTMENT REVIEW PRESENTATION****COMPARTMENT # 76 ENTRY YEAR: 2014****County: Missaukee**

Revision Date: 10/08/2012 1:37 PM**Stand Examiner:** Jim Malloy, Forester**Legal Description:** T24N R5W, Sec. 1, 12, and 13.

Management Goals: To maintain a variety of cover types and age class diversity that favors game as well as non-game species. Past focus on this area has been on the development of the Norwich Oil Field that encompasses over 80% of this Compartment. Long-term goals are to increase the acreage of red and white pine to provide for greater cover type diversity and to create structural and age diversity within the wetland complex along the southern portion of the compartment.

Soil and Topography: The terrain of this Compartment ranges from flat lowland (to the south), to rolling uplands (to the north). Soil series' include Rubicon-Montcalm-Graycalm & Lupton-Roscommon-Tawas associations.

Ownership Patterns, Development, and Land Use In and Around the Compartment: The state owns all lands within the boundaries of this Compartment. The lands adjacent to this Compartment are primarily state owned with some small private in-holdings. The adjoining state lands falls into three separate Forest Management Units (Traverse City-Kalkaska, Roscommon, and Grayling). There are no parcels of land in this Compartment that are recommended for acquisition or disposal. This Compartment has previously been heavily developed for its oil and gas resources.

Unique, Natural Features: The southern one-third of Section 13 contains the northern edge of the Dead Stream Swamp, although is area is not part of the official designated Dead Stream Swamp management area. This portion of the swamp is the headwaters for Cole creek (a tributary to the Dead Stream). MNFI records indicate Hill's thistle to the north and northwest. Kirtland Warbler to the north, Dusted Skipper to the NW, and Bald Eagle to the west. Numerous well sites and roads. Some potential for dry Prairie plants in grassy openings. Hill's thistle, rough fescue. Potential for dusted skipper and red-legged spittlebug as well. Potential for ram's head, limestone oak fern and calypso in cedar types.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): Several old railroad grades cross over the Compartment. No known archeological or historical sites within the Compartment.

Special Management Designations or Considerations: There are numerous oil wells and associated networks of unmarked above ground and shallow pipelines. This limits the possibilities for prescribed burning in the fire dependant ecosystems present in this Compartment. The amount of pipelines also limits the type of silvicultural treatments that can be applied in some areas.

Watershed and Fisheries Considerations: Sections 1 and 12 contain no surface waters. Section 13 contains the headwaters of Cole Creek that is classified warm water. This stream should be protected with the standard setbacks recommend in the Forest Management Guidelines.

Wildlife Habitat Considerations: Management efforts are focused on maintaining the aspen type, establishing mixed age classes of aspen, and to manage and maintain the oak component for acorn production and mature timber. This compartment occurs along the northern edge of the Deadstream Swamp, an important deeryard and prime habitat for bear and bobcat. Ensuring early successional types and mast-producing oaks in close proximity to the swamp is an important resource for overwintering deer. Heavy oil and gas development throughout prevent habitat improvement in the uplands, because there is little chance of burning in the understory or openings. Featured species guidance will be considered for American bittern, American woodcock, beaver, black bear, eastern massasauga rattlesnake, mallard, pileated woodpecker, red-headed woodpecker, ruffed grouse, snowshoe hare, white-tailed deer, and wood duck. (E. Victory 9/2012)

Mineral Resource and Development Concerns and/or Restrictions: This Compartment contains a significant portion of the heavily developed Norwich Oil Field. Numerous surface and underground pipelines exist though out the area and need to be removed, as they are abandoned. Individual well sites that become abandoned should be monitored for progress on cleanup and restoration of the sites. Section 12 contains an inactive gravel pit. Past stabilization attempts have succeeded in preventing severe erosion of the steepest banks. Heavy snowmobile and ORV use has prevented actual reforestation of the pit. The area would need to be fenced off completely if plantings were to be successful. Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 600 feet. Beneath the glacial drift is the Mississippian Michigan Formation that is quarried for gypsum in other areas of the State. A gravel pit is located in Section 12. Gravel potential in the compartment is thought to be good on the uplands. Part of East Norwich Field is located in this compartment. The field has produced over 15.9 million BO and 15.7 Bcf gas from the Devonian Richfield Formation. It is in secondary recovery operations currently. The compartment is almost entirely surface only with a mineral reservation. There are a few State fee parcels leased and HBP. There may be additional oil and gas potential in this area.

Vehicle Access: A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR. Also indicated are forest roads and trails under the jurisdiction of the DNR that are proposed for abandonment. These roads were determined to be in excess of the access needs in the area, are a threat to the resources, or are a concern environmentally.

Survey Needs: There are no department corners within this compartment. Corners currently established are adequate for land management needs.

Recreational Facilities and Opportunities: Recreational Facility Considerations: Snowmobile Trail #6 is located along the northern boundary of this compartment along S. County Line Road. The West Higgins Trail and Michigan Cross Country Cycle (MCCCT) run east/west in the northern portion of the compartment on the same tread. The West Higgins/MCCCT Trail is designed as a 50' maximum width trail for smaller type ORV's such as quads. Care should be taken to keep the 50' width trail intact to reduce illegal opportunistic full size Off-Road Vehicle from using this trail. Proposed timber management activities should include trail protection specifications to reduce impacts, as well as serve as an example of how silviculturally sound timber harvesting practices can co-exist, and often improve recreation and wildlife experiences for future generations. (T.M.N. 8-30-12)

Fire Protection: Wildfire suppression is the responsibility of the Houghton Lake Field Office. Many oil and gas wells in the compartment makes this a limited plow area until utility representative is contacted.

There are numerous well roads, ORV/ snowmobile routes and county roads for access. Seasonal users in dry periods may increase the chance of wildfires. (BET 8-1-12)

Additional Compartment Information: This compartment is adjacent to three other FMUs (Traverse City, Grayling (ELP District), and Roscommon) Management across FMU boundaries should be taken into account where feasible to accomplish landscape level goals. This area will be encompassed by the

The following 9 Inventory reports from are attached:

- ◆ Table 1 - Cover Type by Age Class
- ◆ Table 2 - Treatment Type Summary
- ◆ Table 3 – Treatments with No Limiting Factors
- ◆ Table 4 – Treatments with Limiting Factors
- ◆ Table 5 – Out of YOE Treatments (when applicable)
- ◆ Tables 6 & 7- Forested and Nonforested stands
- ◆ Tables 8 & 9 – Proposed and Dedicated Special Conservation Areas

The following information is displayed, where pertinent, on the attached compartment maps:

- ◆ Base feature information, stand numbers, cover types
- ◆ Proposed treatments
- ◆ Suggested potential and current SCA's

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 +		Uneren Age
Aspen	105	86	118	0	34	0	0	0	0	0	0	0	0	0	342
Bare/Sparsely Vegetated	35	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Jack Pine	0	20	0	0	0	0	0	0	0	0	0	0	0	0	20
Low-Density Trees	22	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	329	0	0	0	329
Marsh	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Mixed Upland Deciduous	0	0	55	0	0	0	0	0	0	0	0	0	0	0	55
Northern Hardwood	0	61	8	0	0	0	0	0	0	0	0	0	0	0	70
Oak	0	0	0	0	0	0	231	0	679	0	0	0	0	0	910
Red Pine	0	0	17	14	0	0	0	0	0	0	0	0	0	0	31
Sand, Soil	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Upland Mixed Forest	0	0	72	29	0	0	0	0	0	0	0	0	0	0	101
Urban	66	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Total	258	168	270	43	34	0	231	0	679	0	329	0	0	0	2011



Table 2 – Proposed Treatment Summaries

Cadillac Mgt. Unit
Year of Entry 2014

Compartment 076
Total Compartment Acres: 2011

Acres by Treatment Type

Commercial Harvest - 431	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
Lowland Conifers		32	0	0	0	0	0	32
Oak		398	0	0	0	0	0	398
Total		431	0	0	0	0	0	431



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6	63076006-Cut	169.4	4124 - Red with White Oak	High Density Pole	82	51-80	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription: Final harvest poor quality oak and maple stand. Leave retention in the form of a travel corridor as shown on the map.

Specs:

Other: Stand has little to no regeneration and is not growing quality timber. Chipping of tops required to facilitate planting.

Comments: Final harvest stand and plant to red pine. Site prep according to TMS prior to planting. Protect ORV trail during harvest and leave trees located along trail edge.

Next Steps: Roller chop, trench and plant to red pine following harvest.

Proposed

Start Date: 10/01/2013

38	63076038-Cut_NoPlant	67.9	4126 - White, Black, N. Pin Oak	High Density Log	83	81-110	Harvest	Clearcut with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
----	----------------------	------	---------------------------------	------------------	----	--------	---------	------------------------	------------------	-----------------------

Prescription: Final harvest portion of stand (defined by treatment shape on map). Mark some white oak to leave.

Specs:

Other: Chipping of tops required to facilitate planting. Concentrate leave trees in areas of little to no regeneration in small patches (~10 trees).

Comments: Following harvest plant red pine in areas with little to no oak regeneration. Reroute ORV trail to southern edge of stand along edge of young aspen stand, then west to connect with existing trail.

Next Steps: Regen survey for oak regeneration in 5 years. If stand fails with oak regen then plant to red pine.

Proposed

Start Date: 10/01/2013

38	63076038-Cut_Plant	79.0	4126 - White, Black, N. Pin Oak	High Density Log	83	81-110	Harvest	Clearcut with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
----	--------------------	------	---------------------------------	------------------	----	--------	---------	------------------------	------------------	-----------------------

Prescription: Final harvest portion of stand (defined by treatment shape on map).

Specs:

Other: Chipping of tops required to facilitate planting. Following harvest plant red pine in areas with little to no oak regeneration.

Comments: Reroute ORV trail to southern edge of stand along edge of young aspen stand, then west to connect with existing trail.

Next Steps: Trench and plant red pine.

Proposed

Start Date: 10/01/2013

38	63076038-Cut_SeedTree	82.1	4126 - White, Black, N. Pin Oak	High Density Log	83	81-110	Harvest	Clearcut with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal
----	-----------------------	------	---------------------------------	------------------	----	--------	---------	------------------------	------------------	-----------------------

Prescription: Mark to leave 30 BA of oak, concentrating on areas of little to no regeneration.

Specs:

Other: Reroute ORV trail to southern edge of stand along edge of young aspen stand, then west to connect with existing trail.

Comments:

Next Steps: Regen Survey for oak regeneration.

Proposed

Start Date: 10/01/2013

**Table 3 -- Treatments Prescribed
with No Limiting Factor**

S
t
a
n
d

	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
56	63076056-Cut	32.4	6124 - Lowland Spruce-Fir	High Density Pole	105		Harvest	Clearcut with Reserves	6124 - Lowland Spruce-Fir	Cmpt. Review Proposal

Prescription: Final harvest two areas of this large swamp complex. Cut 32 acres creating edge and target areas heavy to balsam and spruce. 2" spec on sale.
Specs: Leave cedar under 6"

Other Comments: Cut as much commercially as possible. 3 year contract, and frozen winter dry or summer cut only. Acceptable regen is a mix of swamp conifers.

Next Steps:

Proposed Start Date: 10/01/2013

**Total Treatment
Acreage Proposed: 430.8**

Table 4 -- Treatments Prescribed with a Limiting Factor



S
t
a
n
d

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

#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
	5.2	Unspecified				Harvest	Unspecified	Unspecified	Cmpt. Review Proposal - Incomplete
<u>Prescription Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> <u>Proposed Start Date:</u>									
	3.5	Unspecified				Harvest	Unspecified	Unspecified	Cmpt. Review Proposal - Incomplete
<u>Prescription Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> <u>Proposed Start Date:</u>									
	0.1	Unspecified				Harvest	Unspecified	Unspecified	Cmpt. Review Proposal - Incomplete
<u>Prescription Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> <u>Proposed Start Date:</u>									
	0.0	Unspecified				Harvest	Unspecified	Unspecified	Cmpt. Review Proposal - Incomplete
<u>Prescription Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> <u>Proposed Start Date:</u>									

**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
63086083-Cut	10.2	4123 - Red Oak	High Density Log	80		Harvest	Shelter Wood with Reserves	4124 - Red with White Oak	Cmpt. Review Proposal

Prescription Mark red and white oak in groups reducing basal area down to an average of 30 sq.ft.(range from 20-50).

Specs:

Other This is a natural continuation of stand 1 in Comp 79 (also prescribed).

Comments:

Next Follow harvest with roller chopping of red maple in gaps from previous harvest. Goal is to decrease red maple and cause enough scarification with harvest to create a seedbed for adjacent pine to seed in, as well as oak. Stump sprout oak is not expected, but would be welcome. Regen survey per work instructions.

Proposed
Start Date: 10/01/2013

**Total Treatment
Acreage Proposed: 19.0**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4112 - Maple, Beech, Cherry Association	Medium Density	61.4	10		Stand swapped from Non-Forested to Forested. brushy cherry and red maple almost all multiple stemmed. a few scattered oaks .
2	42110 - Planted Red Pine	High Density Pole	13.8	34	111-140	poor quality red pine plantation. crosses into compartment 77 to the east.
3	4130 - Aspen	High Density Sapling	2.8	24	51-80	same sale as 10.
5	4112 - Maple, Beech, Cherry Association	High Density Sapling	8.5	23	1-50	stand is mostly multiple stemmed red maple with scattered aspen and a few oaks.
6	4124 - Red with White Oak	High Density Pole	199.1	82	51-80	oak mostly poor quality little to no regen throughout stand. traces of aspen and red maple
7	4130 - Aspen	High Density Sapling	12.3	24	1-50	same sale as 10
9	4130 - Aspen	High Density Sapling	5.2	24	1-50	aspen and maple stand is maturing well.
10	4131 - Aspen, Oak	Low Density Sapling	19.5	6		active well site permit #12015 in southeast of stand .
12	4124 - Red with White Oak	Medium Density Log	90.9	88	1-50	stand was cut last entry to an oak shelterwood. regen of oaks is minimal. lots of red maple sprouts. was supposed to be burnt but ftp is still not completed
14	4130 - Aspen	High Density Sapling	1.5	24	51-80	
15	4124 - Red with White Oak	High Density Log	26.4	88	81-110	stand was cut last entry. red maple stump sprouts and scattered oak stump sprouts. powerline runs through middle of stand
17	4131 - Aspen, Oak	High Density Sapling	70.5	6	1-50	Stand was cut last entry. Final harvest of aspen with some oak sawlogs left for mast.
18	4310 - Pine, Oak Mix	High Density Pole	28.9	38	51-80	Stand is a mix of white oak logs and pole sized jack pine scattered about.
19	42110 - Planted Red Pine	High Density Pole	16.9	26	81-110	Growing well.
21	4199 - Other Mixed Upland Deciduous	Medium Density	54.5	21		Stand was cut in 1990. Resulting mix of cherry oak and open areas. A few overstory oaks were left.
22	4130 - Aspen	High Density Sapling	7.1	21		Lower quality aspen saps/poles
24	42120 - Planted Jack Pine	High Density Sapling	20.4	10		

S
t
a
n
d

Cadillac Mgt. Unit

5 – Forested Stands

Compartment: 076
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
26	4124 - Red with White Oak	High Density Pole	230.8	63	51-80	all pole oaks and a maple oak understory with a white pine understory component toward the north
29	4319 - Mixed Upland Forest	Medium Density Pole	72.3	28		Stand contains 3 oil well sites and is a mix of scrubby jack pine, cherry and a few scattered oaks.
34	4130 - Aspen	High Density Pole	26.7	40	81-110	
38	4126 - White, Black, N. Pin Oak	High Density Log	363.0	83	81-110	
45	4130 - Aspen	High Density Sapling	31.4	22	1-50	
47	4130 - Aspen	High Density Pole	11.3	23	51-80	Stand was cut in 1989.
50	4130 - Aspen	High Density Sapling	46.3	22	1-50	
51	4131 - Aspen, Oak	High Density Sapling	14.7	6		stand was cut last entry. some overstory oaks left.
52	4130 - Aspen	High Density Sapling	86.1	13		Stand was treated in 1999
54	4134 - Aspen, Spruce/Fir	High Density Pole	7.0	45		
56	6124 - Lowland Spruce- Fir	High Density Pole	329.1	105		Large lowland complex of cedar, black spruce, balsam fir, some aspen clones, red maple, paper birch and a few scattered supercanopy hite pine.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	790 - Other Bare/Sparsely Vegetate	1.9	Yes	Unspecified	permit #33175
8	790 - Other Bare/Sparsely Vegetate	1.5	No	Unspecified	vacant oil well site, nothing on site. Check for rehab
11	790 - Other Bare/Sparsely Vegetate	1.4	No	Unspecified	active well site permit #35312
13	790 - Other Bare/Sparsely Vegetate	1.4	No	Unspecified	active well site permit #35269
16	790 - Other Bare/Sparsely Vegetate	2.2	N/A	Unspecified	
20	790 - Other Bare/Sparsely Vegetate	1.2	No	Unspecified	permit #35512
23	790 - Other Bare/Sparsely Vegetate	1.2	N/A	Unspecified	
25	790 - Other Bare/Sparsely Vegetate	2.2	N/A	Unspecified	
27	790 - Other Bare/Sparsely Vegetate	3.4	No	Unspecified	active well
28	790 - Other Bare/Sparsely Vegetate	1.0	No	Unspecified	permit #9889
30	122 - Road/Parking Lot	46.9	N/A	Unspecified	
31	3301 - Low Density Deciduous Tree	22.4	No	Unspecified	
32	790 - Other Bare/Sparsely Vegetate	1.1	No	Low (NonForested)	permit #31904 Active well site
33	790 - Other Bare/Sparsely Vegetate	1.1	No	Low (NonForested)	
35	710 - Sand, Soil	14.1	No	Unspecified	permit #11512 along sout side also contains gravel pit and active well site permit #
36	790 - Other Bare/Sparsely Vegetate	1.4	No	Low (NonForested)	
37	790 - Other Bare/Sparsely Vegetate	1.6	No	Unspecified	active well site permit #36098
39	790 - Other Bare/Sparsely Vegetate	2.0	No	Low (NonForested)	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
40	790 - Other Bare/Sparsely Vegetate	1.0	No	Unspecified	active well site permit #35506
41	790 - Other Bare/Sparsely Vegetate	1.0	No	Unspecified	active well site permit #35507 poison gas sign
42	790 - Other Bare/Sparsely Vegetate	1.5	No	Unspecified	permit #12081
43	790 - Other Bare/Sparsely Vegetate	1.0	No	Unspecified	active well site permit #35508
44	790 - Other Bare/Sparsely Vegetate	1.0	No	Unspecified	active well site permit #35509 poison gas sign
46	122 - Road/Parking Lot	19.3	No	Unspecified	active well site permit #36102 far west edge
48	790 - Other Bare/Sparsely Vegetate	1.4	No	Unspecified	active well site permit # 36080
49	790 - Other Bare/Sparsely Vegetate	1.3	No	Unspecified	active well site permit #36065 poison gas sign
53	790 - Other Bare/Sparsely Vegetate	1.1	No	Unspecified	active well site permit #38614
55	790 - Other Bare/Sparsely Vegetate	1.1	No	Unspecified	active well site permit #38216
57	6230 - Cattail	15.6	No	Unspecified	Stand is flooded due to old beaver activity on Cole Creek. Salvage cut occurred last entry to remove all standing dead and live trees.



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



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.

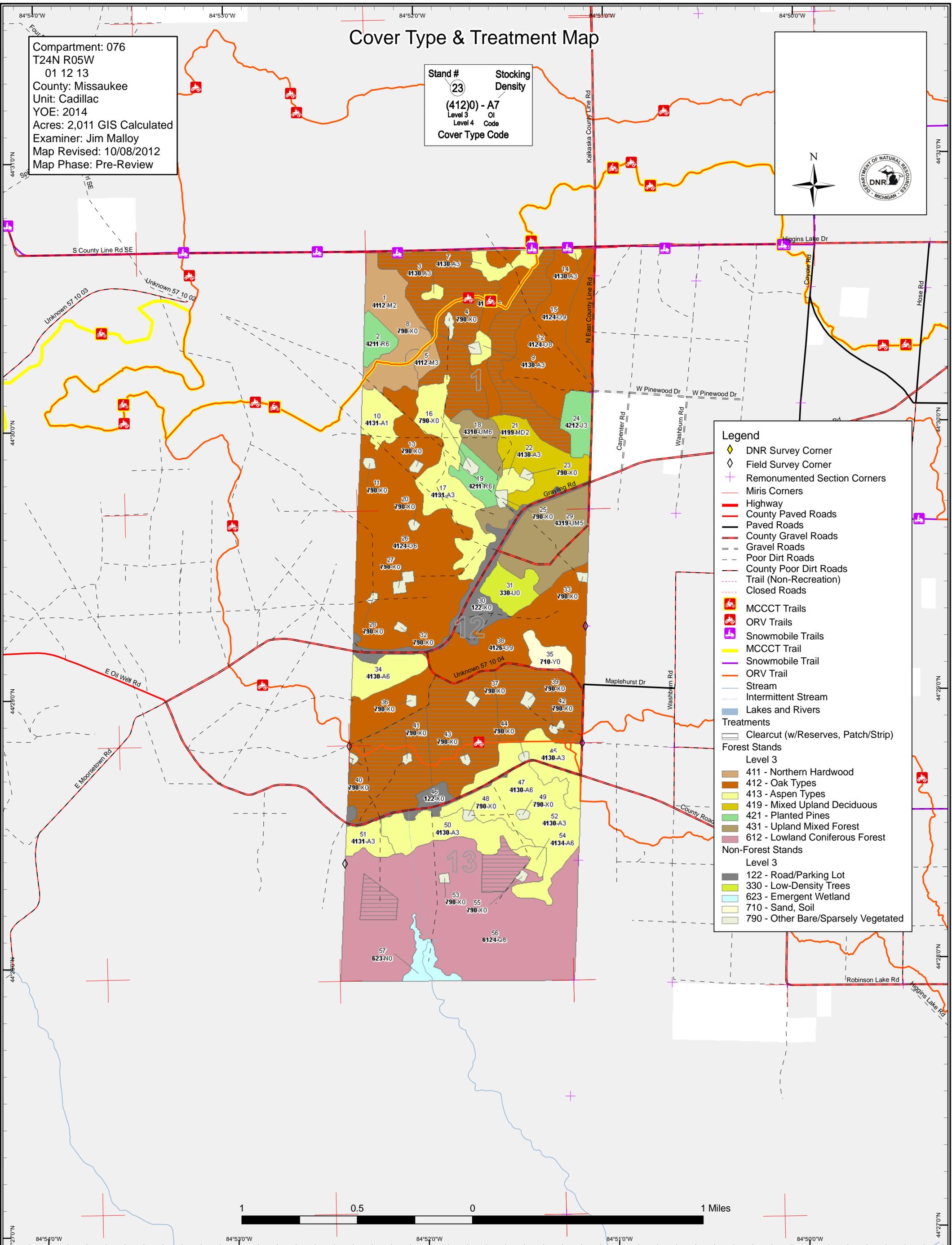
ERA = Ecological Reference Area
 HCVA = High Conservation Value Area
 SCA = Special Conservation Area

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.
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wild Areas that have been nominated or proposed for legal dedication, but for which legal dedication by legislature has not occurred. The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.

Cover Type & Treatment Map

Compartment: 076
 T24N R05W
 01 12 13
 County: Missaukee
 Unit: Cadillac
 YOE: 2014
 Acres: 2,011 GIS Calculated
 Examiner: Jim Malloy
 Map Revised: 10/08/2012
 Map Phase: Pre-Review

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



Legend

- DNR Survey Corner
- Field Survey 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
- MCCCT Trails
- ORV Trails
- Snowmobile Trails
- MCCCT Trail
- Snowmobile Trail
- ORV Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- Treatments
- Clearcut (w/Reserves, Patch/Strip)
- Forest Stands
- Level 3
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- Non-Forest Stands
- Level 3
- 122 - Road/Parking Lot
- 330 - Low-Density Trees
- 623 - Emergent Wetland
- 710 - Sand, Soil
- 790 - Other Bare/Sparsely Vegetated



84°54'0"W 84°53'0"W 84°52'0"W 84°51'0"W 84°50'0"W

44°27'0"N 44°28'0"N 44°29'0"N 44°30'0"N 44°31'0"N

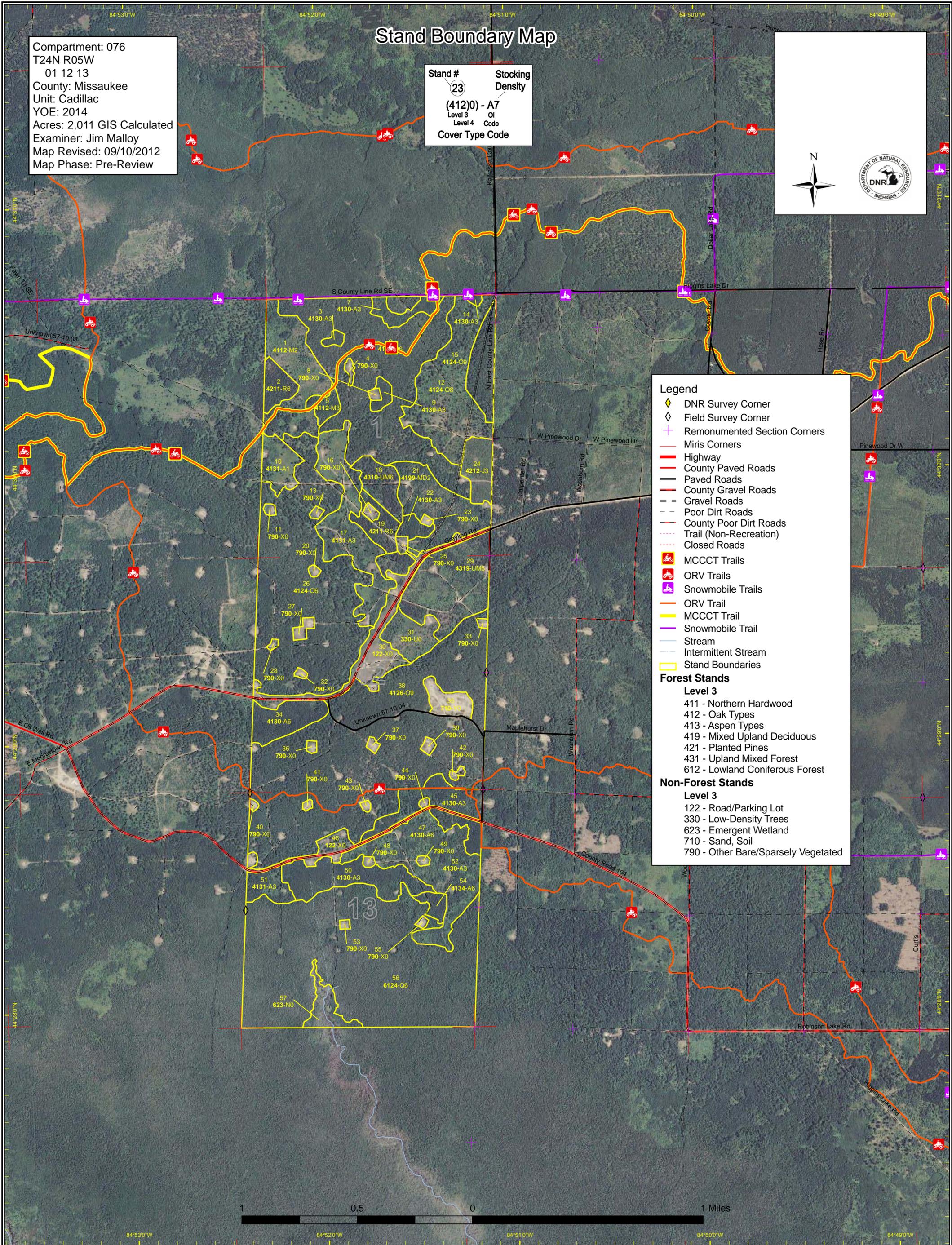
Stand Boundary Map

Compartment: 076
 T24N R05W
 01 12 13
 County: Missaukee
 Unit: Cadillac
 YOY: 2014
 Acres: 2,011 GIS Calculated
 Examiner: Jim Malloy
 Map Revised: 09/10/2012
 Map Phase: Pre-Review

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



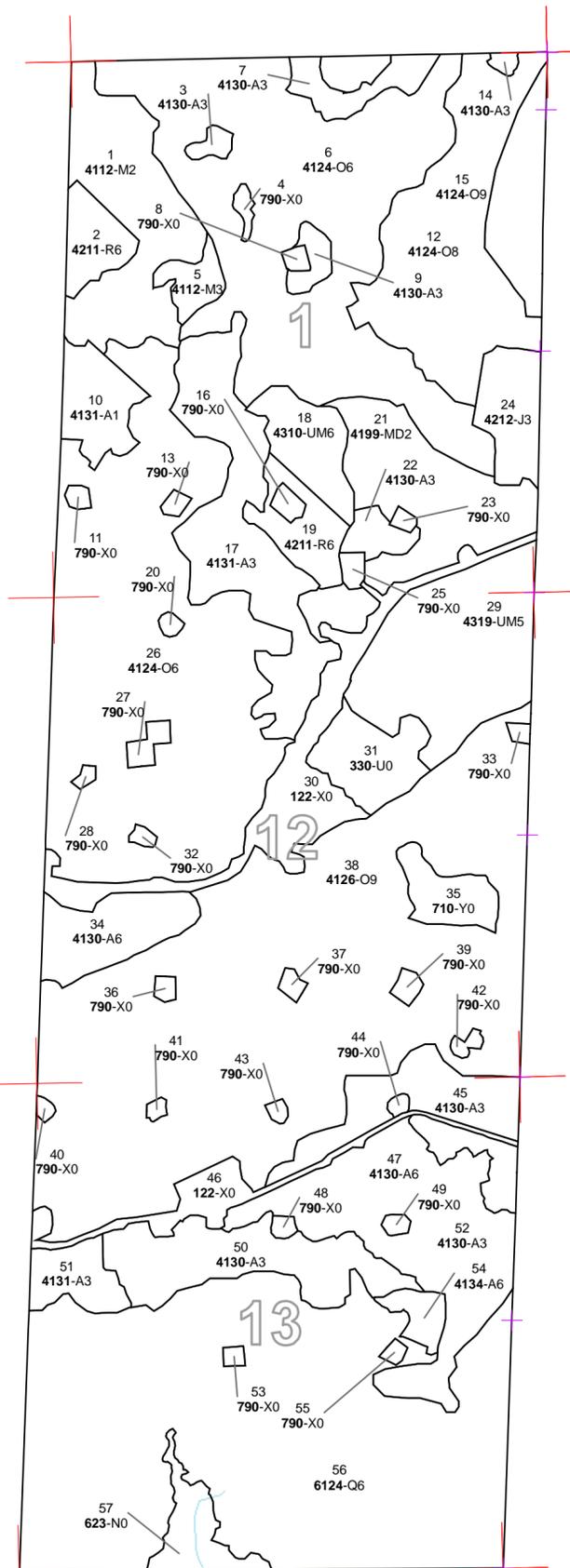
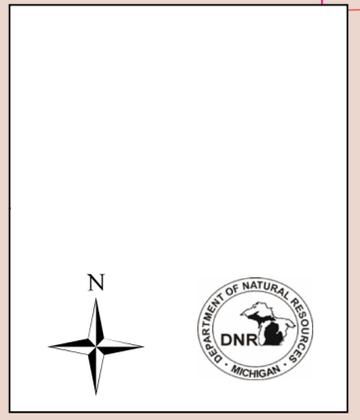
- Legend**
- DNR Survey Corner
 - Field Survey Corner
 - Remonumented Section Corners
 - Miris Corners
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trail (Non-Recreation)
 - Closed Roads
 - MCCCT Trails
 - ORV Trails
 - Snowmobile Trails
 - ORV Trail
 - MCCCT Trail
 - Snowmobile Trail
 - Stream
 - Intermittent Stream
 - Stand Boundaries
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 431 - Upland Mixed Forest
 - 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- Level 3**
- 122 - Road/Parking Lot
 - 330 - Low-Density Trees
 - 623 - Emergent Wetland
 - 710 - Sand, Soil
 - 790 - Other Bare/Sparsely Vegetated



Dedicated & Proposed Special Conservation Area Map

Compartment: 076
 T24N R05W
 01 12 13
 County: Missaukee
 Unit: Cadillac
 YOE: 2014
 Acres: 2,011 GIS Calculated
 Examiner: Jim Malloy
 Map Revised: 10/08/2012
 Map Phase: Pre-Review

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



Legend

- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- Proposed Special Conservation Areas
- ▨ SCA - Special Conservation Area
- ▩ SCA Removal
- Dedicated Special Conservation Areas
- Non_Dedicated Natural Areas and National Natural Landmarks
- Forest Stands
- Level 3
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- Non-Forest Stands
- Level 3
- 122 - Road/Parking Lot
- 330 - Low-Density Trees
- 623 - Emergent Wetland
- 710 - Sand, Soil
- 790 - Other Bare/Sparsely Vegetated

