



Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 102

Entry Year 2015

Acreage: 2,218

County Missaukee

Management Area: Upper Muskegon

Revision Date: 08/19/2013

Stand Examiner: Jim Malloy

Legal Description:

T21N, R5W, Sections 25-28. Holland Township.

Identified Planning Goals:

Continue to maintain cover types and age class diversity. Salvage areas of dead oak and convert to aspen where applicable.

Soil and topography:

Grayling association. Grayling and Rubicon sands. Montcalm-Gray calm complex. Various mucks and Manistee loamy sands.

Mostly level with a few rolling hills towards the east and the Muskegon River to the far east of the compartment.

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

Most of compartment is solid state ownership. Private holdings in west side of section 27. 80 Acres recommended for acquisition in NWSW, NESW of section 25. Land use in compartment is generally hunting, ORV trail use, mushrooming, firewood gathering, snowmobiles on two tracks.

Unique Natural Features:

Large diameter white pine stand in river plains area, section 25.

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:

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

This compartment falls within the Highplains Ecosystem, the east half into the Grayling Outwash Plain Subsection, LTA 5111 and the west half into the Cadillac Subsection, LTA 3111. In LTA 5111 the predominate soil is Grayling sand, a deep, excessively drained, acidic soil with low natural fertility. Pre-settlement vegetation was variable but dominated by fire-dependent conifer forest, e.g. jack pine, red/white pine, and pine or oak/pine barrens. In LTA 3111, soils are deep, excessively drained sands with relatively low fertility. Red pine, which occurred mixed with oak or white pine was a major component of forests. Wildlife habitat objectives for this compartment are to continue to maintain cover types and age-class diversity across the compartment. The eastern fifth of the compartment is part of a proposed eastern massasauga rattlesnake management area. Activities in this management area will follow Conservation Candidate Agreement with Assurances guidelines as approved by the U.S. Fish and Wildlife Service. Featured species of special interest are eastern massasauga rattlesnake, bear, deer, woodcock, ruffed grouse, and golden-winged warbler. (E. Victory, 8/21/13)

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift are the Pennsylvanian Grand River and Saginaw Formations. The Saginaw is quarried for clay/shale in other parts of the State. A sand pit is located in Section 33 and a gravel pit is located one mile to the south. Gravel potential is considered good especially the upland areas. The compartment is located two miles northwest of Cranberry Lake Field. The field is a Stray Sandstone gas storage area (7.7 Bcf) and a Richfield secondary recovery operation (1.7 MBO). The entire Compartment is leased for oil and gas development. (T. Hoane, 3/6/2013).

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 closure. 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:

None needed at this time.

Recreational Facilities and Opportunities:

The Leota ORV Trail runs North and South, and East & West through this compartment. This ORV trail designed for vehicles 50 inches wide or less. Care should be taken to keep the 50" trail intact to reduce illegal opportunistic full size ORV's. Proposed timber management activities should include trail protection specifications to reduce impacts to users, 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. Hunting opportunities exist throughout the area also. (T.M.N. 7/2013)

Fire Protection:

The road system with in the compartment allows for suppression equipment access. The limiting factors would be the sandy soils and terrain issues. Recreational activates within the compartment would increase the chance of a fire. This area has fuel types that would support large fire growth and cause suppression concerns on Very High and Extreme days. (B. Tower, 2013).

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**

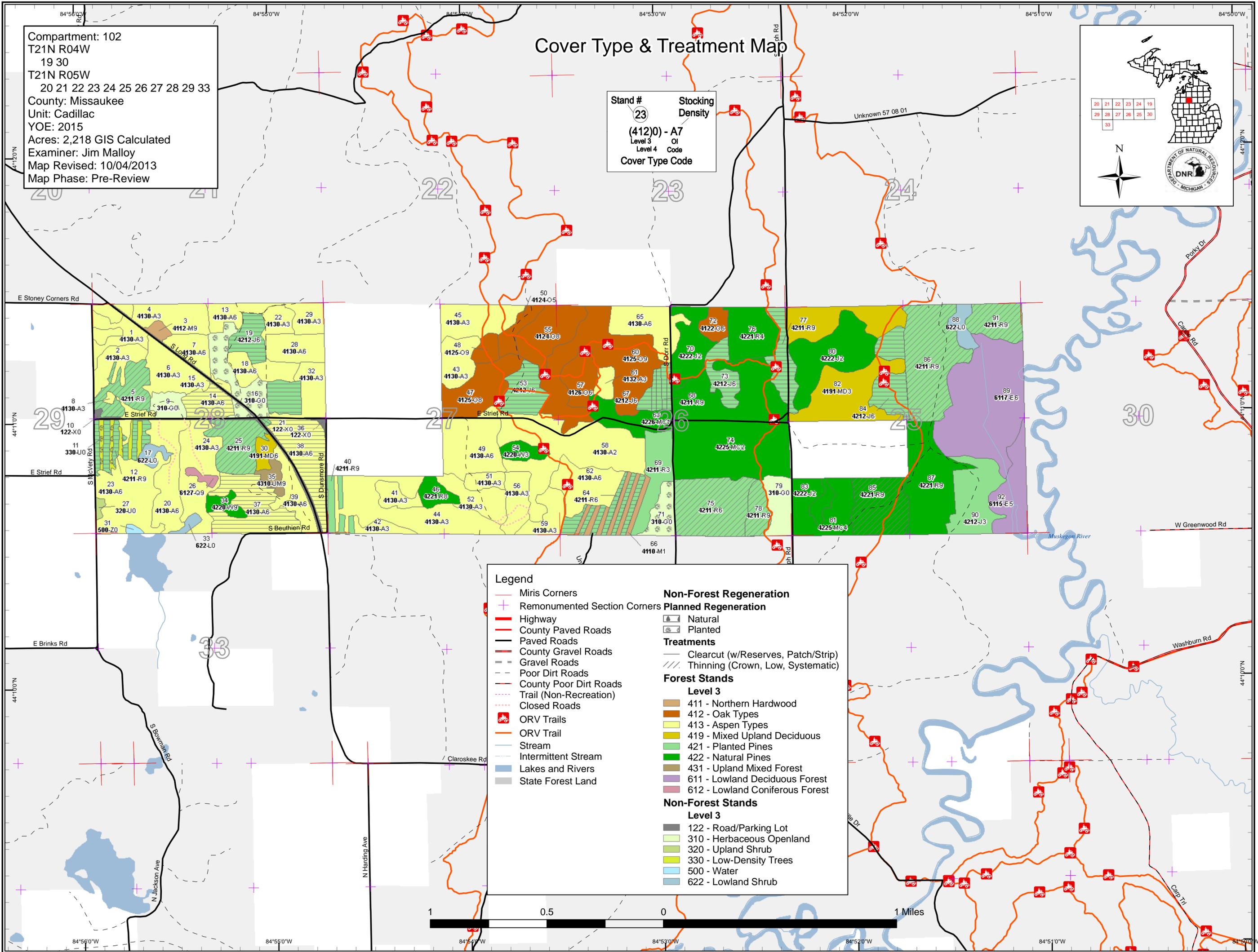
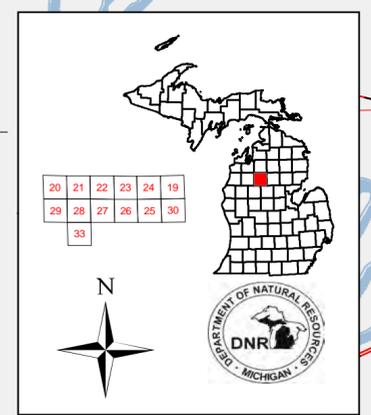
The following information is displayed, where pertinent, on the attached compartment maps:

- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Compartment: 102
 T21N R04W
 19 30
 T21N R05W
 20 21 22 23 24 25 26 27 28 29 33
 County: Missaukee
 Unit: Cadillac
 YOY: 2015
 Acres: 2,218 GIS Calculated
 Examiner: Jim Malloy
 Map Revised: 10/04/2013
 Map Phase: Pre-Review

Cover Type & Treatment Map

Stand #
 23
 (4120) - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code



Legend

- Miris Corners
- Remonumented Section Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- ORV Trails
- ORV Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Non-Forest Regeneration

- Planned Regeneration
- Natural
- Planted

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)

Forest Stands

Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

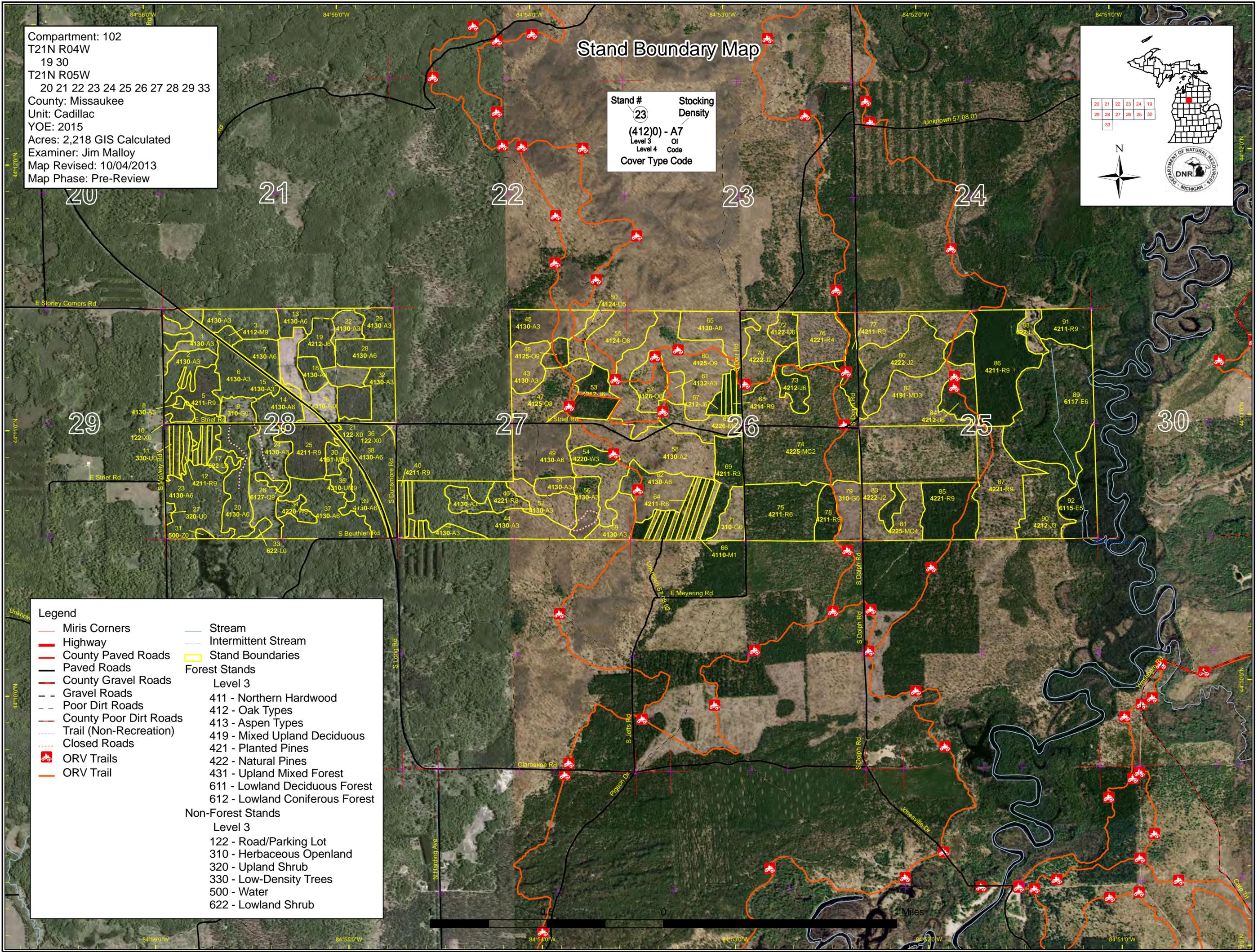
- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub



Compartment: 102
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Stand Boundary Map

Stand #
 23
Stocking Density
 (4120) - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

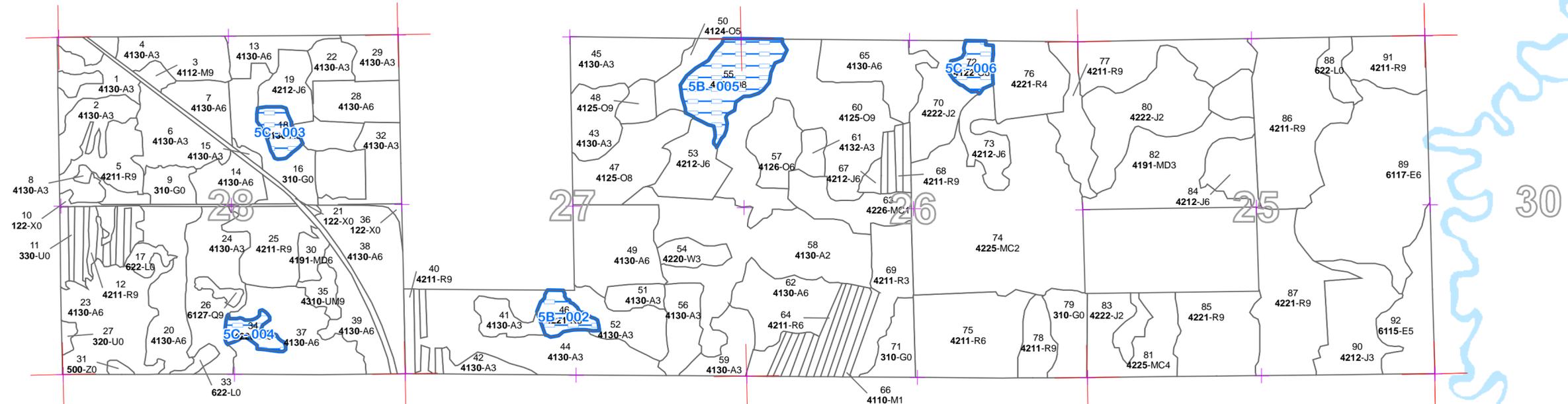
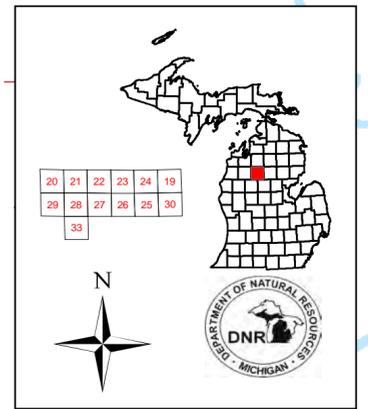


- Legend**
- Miris Corners
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - - Gravel Roads
 - - Poor Dirt Roads
 - - County Poor Dirt Roads
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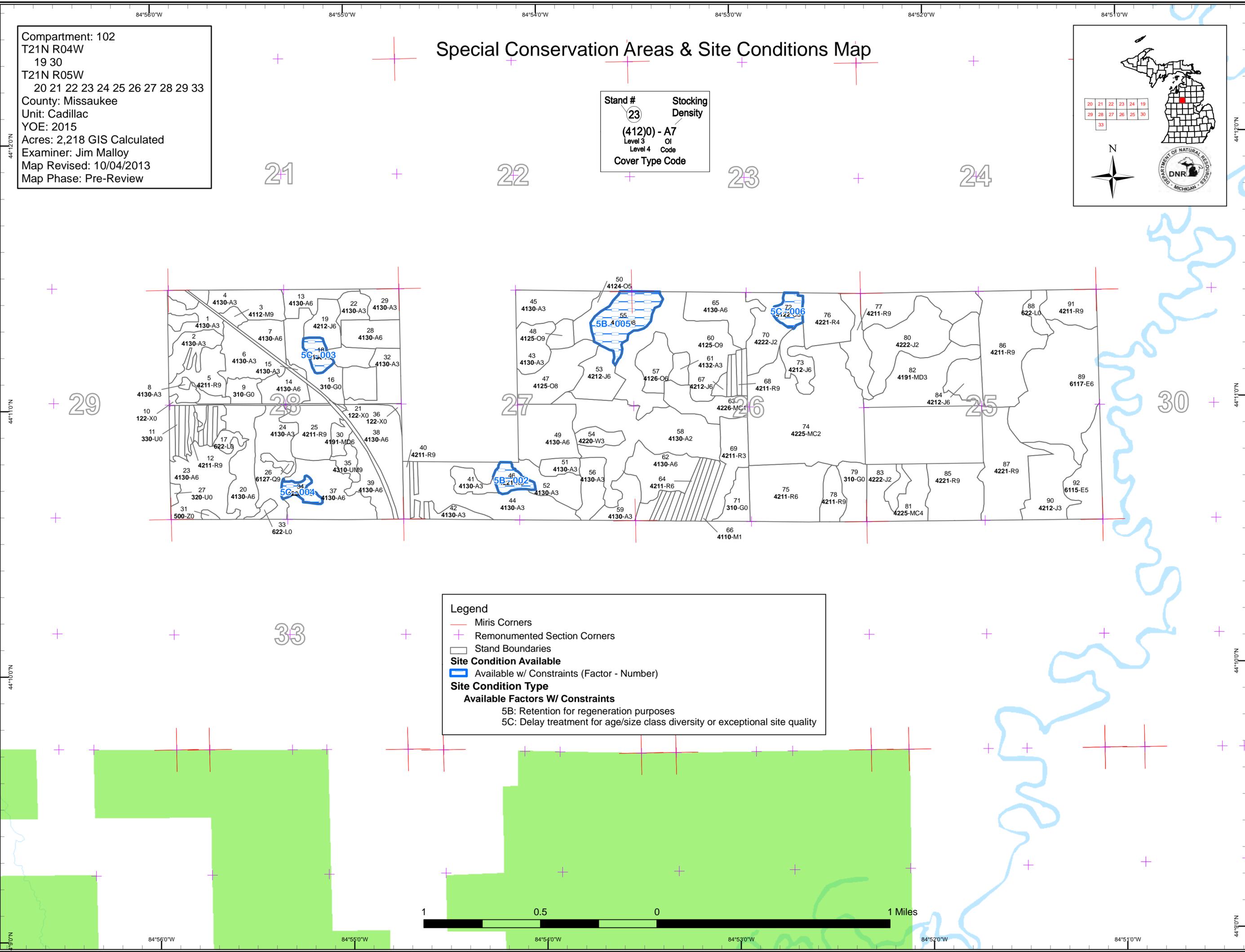
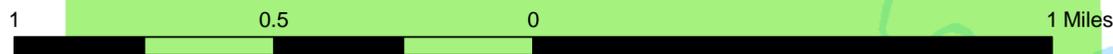
Special Conservation Areas & Site Conditions Map

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



Legend

- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- Site Condition Available**
- ▭ Available w/ Constraints (Factor - Number)
- Site Condition Type**
- Available Factors W/ Constraints**
- 5B: Retention for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality



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	215	212	258	0	99	8	16	0	0	0	0	0	0	0	809
Herbaceous Openland	68	0	0	0	0	0	0	0	0	0	0	0	0	0	68
Jack Pine	35	112	0	0	0	28	55	16	0	0	0	0	0	0	246
Low-Density Trees	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Lowland Conifers	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
Lowland Deciduous	0	0	0	0	0	30	103	0	0	0	0	0	0	0	133
Lowland Shrub	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Mixed Upland Deciduous	83	0	0	0	6	0	0	0	0	0	0	0	0	0	89
Natural Mixed Pines	0	137	22	0	0	0	6	0	0	0	0	0	0	0	165
Northern Hardwood	15	0	0	0	0	0	0	4	0	0	0	0	0	0	18
Oak	0	0	0	0	0	18	0	132	41	0	0	0	0	0	191
Red Pine	0	0	25	0	0	96	33	263	9	0	0	0	0	0	426
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7
Upland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Urban	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
White Pine	0	0	9	0	0	0	0	0	0	0	7	0	0	0	16
Total	461	461	314	0	106	181	213	414	54	0	14	0	0	0	2218



Report 2 – Proposed Treatment Summaries

Cadillac Mgt. Unit
Year of Entry 2015

Compartment 102
Total Compartment Acres: 2,218

Acres by Treatment Type

Commercial Harvest - 503 Tree Planting - 152 Other - 0
Habitat Cut - 0 Opening Maintenance - 0

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen Types	96	0	0	0	0	0	96
Natural Pines	0	0	0	0	37	0	37
Planted Pines	168	0	0	0	202	0	370
Total	264	0	0	0	239	0	503



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	63102005-Cut	23.2	42110 - Planted Red Pine	High Density Log	57	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Thin to a residual BA of 80-90										
<u>Specs:</u>										
<u>Other</u> Final harvest next entry.										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
12	63102012-Cut	16.4	42110 - Planted Red Pine	High Density Log	57	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> final harvest and replant along with adjacent strips cut last entry.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Trench and replant to red pine along with adjacent strips to the east.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
14	63102014-Cut	15.7	4130 - Aspen	High Density Pole	61		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Final harvest and leave oak. Also leave a buffer along Long rd to serve as retention. Add Grouse and Hare spec to final sale specs.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
19	63102019-Cut	28.4	42120 - Planted Jack Pine	High Density Pole	56	111-140	Harvest	Clearcut with Reserves	4212 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Final harvest and leave any oak. This portion of stand was left last entry for age diversity.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Trench and plant to red or Jack per TMS										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
25	63102025-Cut	28.2	42110 - Planted Red Pine	High Density Log	57	111-140	Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Thin to a residual ba of 80-90.										
<u>Specs:</u>										
<u>Other</u> Final harvest next entry.										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
37	63102037-Cut	42.0	4130 - Aspen	High Density Pole	47		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal

Prescription Final harvest a portion of the stand for age class diversity. Leave all oak and pine in area harvested. Add Grouse and Hare spec to final sale
Specs: specs.

Other
Comments:

Next
Steps:

Proposed
Start Date: 10/01/2014

38	63102038-Cut	38.6	4130 - Aspen	High Density Pole	45		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
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Prescription Final Harvest. Leave all oak. Add grouse and hare spec to sale.
Specs:

Other
Comments:

Next
Steps:

Proposed
Start Date: 10/01/2014

40	63102040-Cut	7.3	42110 - Planted Red Pine	High Density Log	57	171-200	Harvest	Clearcut	4211 - Planted Red Pine	Fld. Tr. Bdy.
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Prescription Final harvest no retention
Specs:

Other
Comments:

Next Plant to red pine
Steps:

Proposed
Start Date: 05/30/2013

53	63102053-Cut	21.4	42120 - Planted Jack Pine	High Density Pole	61	81-110	Harvest	Clearcut with Reserves	4212 - Planted Jack Pine	Cmpt. Review Proposal
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Prescription Final harvest and leave all oak.
Specs:

Other protect ORV trail during harvest
Comments:

Next Trench and plant to red or jack per TMS.
Steps:

Proposed
Start Date: 10/01/2014



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
64	63102064-Cut	19.4	42110 - Planted Red Pine	High Density Pole	58	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal

Prescription Final harvest and plant with adjacent strips harvested last entry.

Specs:

Other protect ORV trail during harvest

Comments:

Next Trench and plant to red pine.

Steps:

Proposed

Start Date: 10/01/2014

67	63102067-Cut	8.5	42120 - Planted Jack Pine	High Density Pole	61		Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Final Harvest

Specs:

Other protect ORV trail during harvest

Comments:

Next Trench and plant to red pine. Plant in coordination with adjacent strips.

Steps:

Proposed

Start Date: 10/01/2014

68	63102068-Cut	4.8	42110 - Planted Red Pine	High Density Log	68	171-200	Harvest	Clearcut	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Final harvest. No retention due to small size and replanting.

Specs:

Other protect ORV trail during harvest

Comments:

Next Trench and plant to red pine. Plant in coordination with adjacent strips.

Steps:

Proposed

Start Date: 10/01/2014

73	63102073-Cut	16.0	42120 - Planted Jack Pine	High Density Pole	78		Harvest	Clearcut with Reserves	4222 - Natural Jack Pine	Cmpt. Review Proposal
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Prescription Final harvest jack pine and any scattered maple and aspen. Leave 2 small islands of pine for retention and leave all oak. Allow to regenerate naturally to a mix of pine and oak.

Specs:

Other Acceptable regen is a mix of species. protect ORV trail during harvest

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2014



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
75	63102075-Cut	50.2	42110 - Planted Red Pine	High Density Pole	72		Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Thin red pine to a residual BA of 110-120 and remove all red pine.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
77	63102077-Cut	20.1	42110 - Planted Red Pine	High Density Log	74	111-140	Harvest	Clearcut with Reserves	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> final harvest leave oaks replant to red pine in areas of no oak.										
<u>Specs:</u>										
<u>Other</u> acceptable regen would be mix of red jack and oaks. protect ORV trail during harvest										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
78	63102078-Cut	13.0	42110 - Planted Red Pine	High Density Log	71	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> thin to a residual ba of 100-110										
<u>Specs:</u>										
<u>Other</u> Manage concurrently with stand to the west										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
84	63102084-Cut	25.5	42120 - Planted Jack Pine	High Density Pole	64	111-140	Harvest	Clearcut with Reserves	4212 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> final harvest leave oaks.										
<u>Specs:</u>										
<u>Other</u> protect ORV trail during harvest										
<u>Comments:</u>										
<u>Next</u> Replant to Jack Pine										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										
85	63102085-Cut	37.3	42210 - Natural Red Pine	High Density Log	73	171-200	Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> remove jack pine and thin red pine to a residual of 100-110										
<u>Specs:</u>										
<u>Other</u> protect ORV trail during harvest										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2014										



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
86 63102086-Cut	65.7	42110 - Planted Red Pine	High Density Log	70	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal

Prescription Thin pine to a residual BA of 100-110. Winter or dry summer harvest only.

Specs:

Other protect trail during harvest

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2014

91 63102091-Cut	21.8	42110 - Planted Red Pine	High Density Log	70	171-200	Harvest	Low Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Thin pine to a residual BA of 70-80 due to poor access. Winter or dry summer harvest only.

Specs:

Other Access is questionable due to wet crossing. Road was frozen in to the west last entry.

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2014

**Total Treatment
Acreage Proposed: 503.5**



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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

Cadillac Mgt. Unit
 Jim Malloy : Examiner

Compartment 102
 Year of Entry 2015

Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	5C	5B
	Available	Not Available				
809	809		Aspen	800	8	
246	246		Jack Pine	246		
3	3		Lowland Conifers	3		
133	133		Lowland Deciduous	133		
89	89		Mixed Upland Deciduous	89		
165	165		Natural Mixed Pines	165		
18	18		Northern Hardwood	18		
191	191		Oak	150	9	32
426	426		Red Pine	417		9
7	7		Upland Mixed Forest	7		
16	16		White Pine	9	7	
2,104	2,104		Total Forested Acres	2,038	25	41
	100%		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
002	Available	5B: Retention for regeneration purposes	9				
Comments:							
003	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8				
Comments: Hold due to amount of adjacent cutting							

Report 5 – Site Conditions

Cadillac Mgt. Unit
Jim Malloy : Examiner

Compartment 102
Year of Entry 2015

004	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7
Comments:			
005	Available	5B: Retention for regeneration purposes	32
Comments:			
006	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9
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
Comments				



Report 7 – 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	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.

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Cadillac Mgt. Unit

Report 8 – Forested Stands

Compartment: 102
Year of Entry: 2015

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	High Density Sapling	16.7	4		Aspen stand was harvested last entry.
2	4130 - Aspen	High Density Sapling	24.6	16		Aspen stand with scattered overstory oaks left following previous harvest.
3	4112 - Maple, Beech, Cherry Association	High Density Log	3.6	77		
4	4130 - Aspen	High Density Sapling	22.8	16		Aspen is growing well. about to the 4" class overall.
5	42110 - Planted Red Pine	High Density Log	23.2	57	141-170	Stand was thinned last entry. thin again to 100-110ba.
6	4130 - Aspen	High Density Sapling	25.3	27		
7	4130 - Aspen	High Density Pole	14.0	26		Stand has a wet area in the NE portion of the stand. This is the conceteration of Quaking Aspen,
8	4130 - Aspen	High Density Sapling	7.5	16		young aspen along both sides of the road.
12	42110 - Planted Red Pine	High Density Log	16.4	57	111-140	stand was cut last entry and has been thinned 3 times.
13	4130 - Aspen	High Density Pole	13.2	26		Same sale as stand 5 but no wet areas. Aspen is growing well.
14	4130 - Aspen	High Density Pole	15.7	61		
15	4130 - Aspen	High Density Sapling	1.5	4		
18	4130 - Aspen	High Density Pole	8.3	57		Hold due to amount of adjacent cutting
19	42120 - Planted Jack Pine	High Density Pole	28.4	56	111-140	Jack Pine with scattered pole pin oak. Surrounding pine was cut last entry.
20	4130 - Aspen	High Density Pole	33.2	27		
22	4130 - Aspen	High Density Sapling	19.1	8		aspen with residual overstory oaks. some scattered oaks in the sapling size class.
23	4130 - Aspen	High Density Pole	47.6	22		Small pole stand
24	4130 - Aspen	High Density Sapling	38.0	5		1\3 of overstory oaks are dead

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Cadillac Mgt. Unit

Report 8 – Forested Stands

Compartment: 102
Year of Entry: 2015

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	42110 - Planted Red Pine	High Density Log	28.2	57	111-140	stand was thinned last entry.
26	6127 - Lowland Pine	High Density Log	3.3	84	51-80	wet stand of pine and spruce.
28	4130 - Aspen	High Density Pole	19.5	27		Overstory oaks left following aspen cut. Aspen is growing well.
29	4130 - Aspen	High Density Sapling	11.9	16		Stand was cut last entry. Some residual oaks left.
30	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	6.5	48	1-50	stand is a mix of oaks maple and white pine with aspen scattered throughout.
32	4130 - Aspen	High Density Sapling	18.5	16		Stand was cut last entry. Some residual oaks were left.
34	42200 - Natural White Pine	High Density Log	7.2	102	51-80	few scattered oak seedlings in open areas .
35	4310 - Pine, Oak Mix	High Density Log	6.8	101	1-50	stand was cut last entry. red maple regen throughout. heavy browse on maple regen.
37	4130 - Aspen	High Density Pole	42.0	47		growing well. harvest portion of stand. good quality aspen. stand contains some frost pockets and low rolling hills.
38	4130 - Aspen	High Density Pole	38.6	45		
39	4130 - Aspen	High Density Pole	18.6	46		stand bordering long rd. moderate white pine understory.
40	42110 - Planted Red Pine	High Density Log	8.6	57	171-200	Stand is being cut with adjacent sale in compartment to the south
41	4130 - Aspen	High Density Sapling	9.7	5		
42	4130 - Aspen	High Density Sapling	7.2	16		
43	4130 - Aspen	High Density Sapling	18.8	5		
44	4130 - Aspen	High Density Sapling	60.7	16		
45	4130 - Aspen	High Density Sapling	27.9	4		Pocket of red pine in the NW corner.
46	42210 - Natural Red Pine	Medium Density Log	9.4	87	1-50	Overstory red pine with an aspen understory.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
47	4125 - Black, N. Pin Oak	Medium Density Log	33.9	76		Cut during a previous entry. a mix of oak with pockets of aspen regen. Scattered pine.
48	4125 - Black, N. Pin Oak	High Density Log	7.5	75		
49	4130 - Aspen	High Density Pole	38.2	26		stand is mostly aspen with scattered oaks and maple. growing well and transitioning into pole class.
50	4124 - Red with White Oak	Medium Density Pole	10.5	73		Stand is more open following previous harvest. A mix of oak with aspen understorey.
51	4130 - Aspen	High Density Sapling	7.7	16		stand is a sapling size with overstorey oaks concentrated in the southern portion of stand. some scattered oak saplings mixed in.
52	4130 - Aspen	High Density Sapling	19.5	16		
53	42120 - Planted Jack Pine	High Density Pole	21.4	61	81-110	planted jack pine with oak understorey.
54	42200 - Natural White Pine	High Density Sapling	8.9	22		Stand of young WP with a few overstorey oak.
55	4124 - Red with White Oak	Medium Density Log	31.6	81	1-50	A mix of red and white oak over an understorey of aspen.
56	4130 - Aspen	High Density Sapling	16.7	17		Recent cut.
57	4126 - White, Black, N. Pin Oak	High Density Pole	18.3	53		Oak with scattered white pines
58	4130 - Aspen	Medium Density	83.5	8		Stand was cut last entry. Maple and aspen regen with scattered oak overstorey.
59	4130 - Aspen	High Density Sapling	15.2	16		aspen with a few scattered oak left following previous harvest.
60	4125 - Black, N. Pin Oak	High Density Log	80.1	75		
61	4132 - Aspen, Jack Pine	High Density Sapling	6.4	26		Hillside along ORV trail. Filling in with aspen and pine.
62	4130 - Aspen	High Density Pole	30.6	28		Transitioning to pole size.
63	42260 - Natural Pine, Mixed Deciduous	Low Density Sapling	22.1	20		Strieff Rd runs through stand. Stand is a mix with red pine to the west and young oak to the east with aspen and jack pine throughout. was supposed to naturally regenerate to JP following previous harvest.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
64	42110 - Planted Red Pine	High Density Pole	19.4	58	111-140	Stand was thinned last entry. Rows were cut from the western most portion due to close spacing of the residuals, trees still have orange marks.
65	4130 - Aspen	High Density Pole	29.9	28		
66	4110 - Sugar Maple Association	Low Density Sapling	14.6	7		
67	42120 - Planted Jack Pine	High Density Pole	8.5	61		
68	42110 - Planted Red Pine	High Density Log	4.8	68	171-200	
69	42110 - Planted Red Pine	High Density Sapling	24.8	20	51-80	Stand was hand planted in 1993. Growing well and about to transition into the pole size class.
70	42220 - Natural Jack Pine	Medium Density	26.4	18		Regenerating jack pine stand.
72	4122 - Oak, Pine	High Density Pole	9.2	87		oak with Jack Pine along the eastern border.
73	42120 - Planted Jack Pine	High Density Pole	16.0	78		Stand was not cut previous entry. Final harvest this entry
74	42250 - Pine, Oak	Medium Density	136.9	15		
75	42110 - Planted Red Pine	High Density Pole	50.2	72		
76	42210 - Natural Red Pine	Low Density Pole	28.5	68	1-50	Stand was seed tree cut last entry.
77	42110 - Planted Red Pine	High Density Log	20.1	74	111-140	mix of red pine and jack pine with scattered oaks.
78	42110 - Planted Red Pine	High Density Log	13.0	71	141-170	red pine was thinned last entry.
80	42220 - Natural Jack Pine	Medium Density	47.5	11		
81	42250 - Pine, Oak	Low Density Pole	6.3	65		
82	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	82.6	8		
83	42220 - Natural Jack Pine	Medium Density	35.0	9		

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Cadillac Mgt. Unit

Report 8 – Forested Stands

Compartment: 102
Year of Entry: 2015

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
84	42120 - Planted Jack Pine	High Density Pole	25.5	64	111-140	jack pine stand with pin oak saplings in the understory. leota trail runs through stand.
85	42210 - Natural Red Pine	High Density Log	37.3	73	171-200	mix red and jack pine. understory oaks
86	42110 - Planted Red Pine	High Density Log	65.7	70	141-170	planted red pine with little understory. growing well and thinned last entry. Thin again this time.
87	42210 - Natural Red Pine	High Density Log	54.8	73	1-50	stand appears to have been seed tree harvest last entry. overstory red pine with jack pine and an understory of northern pin oak and jack pine.
89	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	102.8	67	1-50	
90	42120 - Planted Jack Pine	High Density Sapling	37.6	18	51-80	stand appears to have been planted. mostly jack pine with a good portion of red pine in overstory. northern pin oak in understory.
91	42110 - Planted Red Pine	High Density Log	21.8	70	171-200	
92	6115 - Lowland Ash	Medium Density Pole	30.5	52		Stand is lowland black ash that is underwater at times of the year. Tag alder and a few spruce/balsam. Most of the ash is dead/dying due to EAB



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
9	310 - Herbaceous Openland	9.9	No	Unspecified	Few scattered trees in grassy opening. Prvious landing site for adjacent timber sales.
10	122 - Road/Parking Lot	3.9	Unspecified	Unspecified	
11	3301 - Low Density Deciduous Tree	9.0	Plantation	Red Pine	was cut last entry and jack pine removed. plant to red pine following harvest of adjacent strips.
16	310 - Herbaceous Openland	27.4	Plantation	Red Pine	stand has been trenched. waiting for trees to be planted likely this spring. 1\16\13
17	6220 - Alder/willow	5.1	Unspecified	Unspecified	
21	122 - Road/Parking Lot	10.9	Unspecified	Unspecified	
27	320 - Upland Shrub	2.1	Unspecified	Unspecified	
31	50 - Water	1.5	Unspecified	Unspecified	
33	6229 - Mixed lowland shrub	3.0	Unspecified	Unspecified	
36	122 - Road/Parking Lot	1.5	Unspecified	Unspecified	
71	310 - Herbaceous Openland	13.7	Plantation	Red Pine	Stand has been trenched. To much snow to observe if planted.
79	310 - Herbaceous Openland	17.3	Unspecified	Unspecified	stand was cut and waiting on trench and plant.
88	6220 - Alder/willow	8.6	Unspecified	Unspecified	