

CADILLAC FOREST MANAGEMENT UNIT**COMPARTMENT REVIEW PRESENTATION****COMPARTMENT # 002 ENTRY YEARS: 2010****Compartment Acreage (GIS Acres): 1279 County: Lake**

Revision Date: 10/13/2008 10:12 AM**Stand Examiner:** Rick-James Hill**Legal Description:** T20 R12W, Sections 12, 13, & 24**RMU (if applicable):** 309**Management Goals:** Recreation, the Pine River runs through the compartment. The area receives heavy use especially on the Pine River.**Soil and Topography:** The topography in this compartment ranges from rolling hills to bluffs around the pine river. Soils in this area are Rubicon, Montcalm and Graycalm.**Ownership Patterns, Development, and Land Use in and Around the Compartment:** This Compartment is in a large area of public land. The compartment is solid state ownership with no in holdings. To the west there is a large area of state ownership. North of the compartment is a large area of the Manistee National forest. To the south and east are areas of private ownership.**Unique, Natural Features (include only non-site specific and non-sensitive information):** Near this compartment the Red-shouldered hawk has nested to the East. The Northern goshawks have nested to west and north. Bald Eagles nest to the south. There is Potential for red-shouldered hawk and goshawk in this compartment.**Archeological, Historical, and Cultural Features** No known sites in the compartment.**Special Management Designations or Considerations:** The pine river is a natural river which effects management adjacent to the river. There are also influence zones along state road and near the campgrounds.**Watershed and Fisheries Considerations:** Mark**Wildlife Habitat Considerations:** Priority wildlife species are deer, ruffed grouse, woodcock and turkey. This compartment is one of two in RMU 309. The RMU agreement called for no change in types. Major management objectives are to maintain aspen and expand where possible and to develop age class and habitat diversity for a variety of game and non-game species. (L. Smith, 9/19/08)**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of an end moraine of coarse-textured till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are the Pennsylvanian Saginaw Formation and the Mississippian Bayport Limestone and Michigan Formation. The Saginaw is quarried for clay, the Bayport for limestone and the Michigan for gypsum in other areas of the State. A gravel pit is located one mile to the east and there is good potential. The nearest oil and gas production is the one well abandoned Luther Field located five miles to the

east. The Field produced over 28,000 BO from the Traverse Limestone. The compartment is not currently leased for oil and gas exploration.

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: None at this time.

Recreational Facilities and Opportunities: This compartment contains Silver Creek and Lincoln Bridge campgrounds. The area also contains a lot of trails including the Lincoln hills motorcycle trail, the Lincoln hills ORV route and the silver creek pathway. Canoeing and other uses of the pine river are the most common summer activities in the compartment. Hunting and trapping are also common activities in the area.

Fire Protection: With the heavy recreation use in the area, there is the possibility of human caused starts within the compartment. Some areas also would be difficult access for fire equipment, due to the Pine River corridor.

Additional Compartment Information: None at this time.

The following parcels are recommended for acquisition if they become available for sale:

None at this time

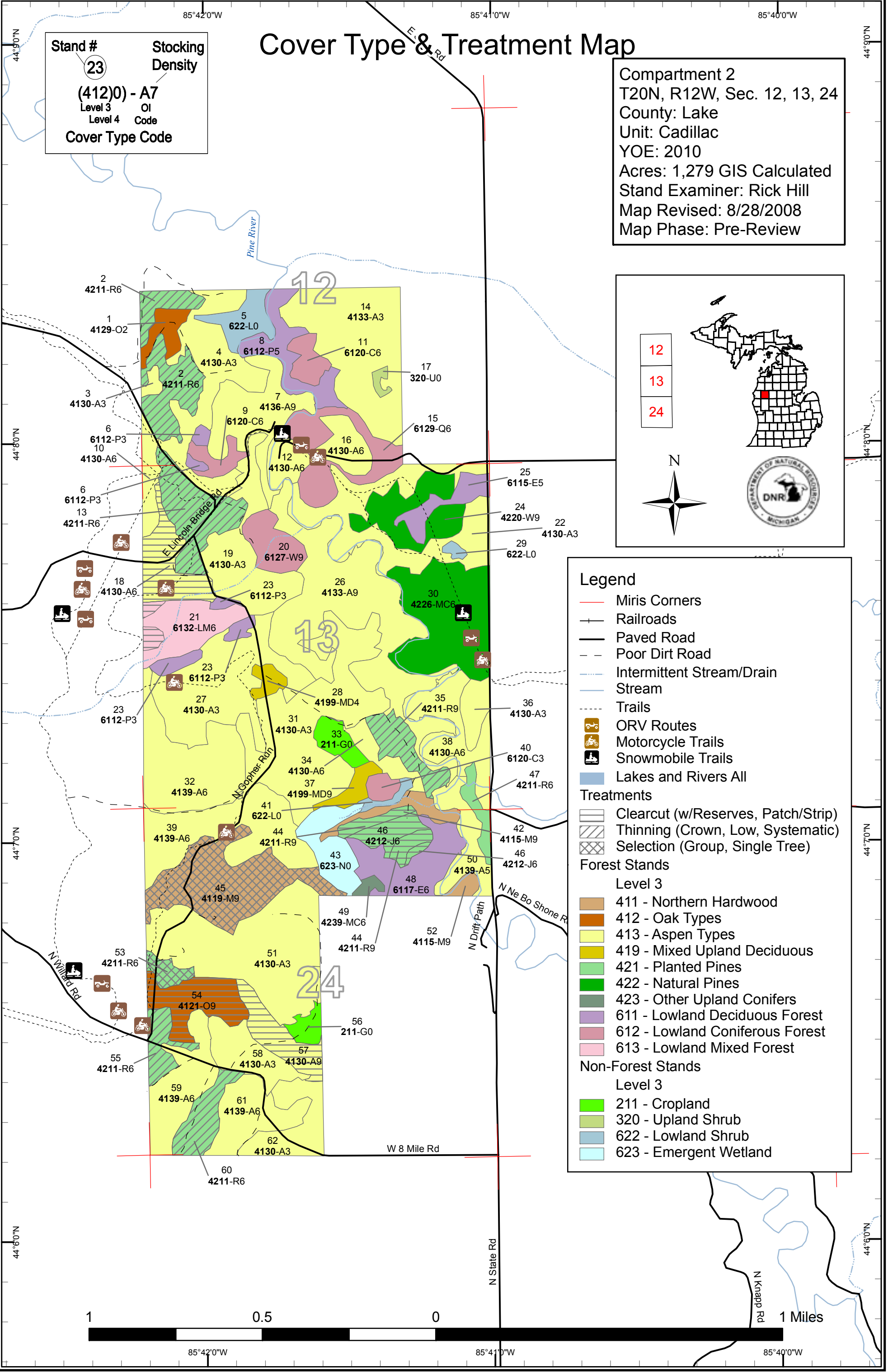
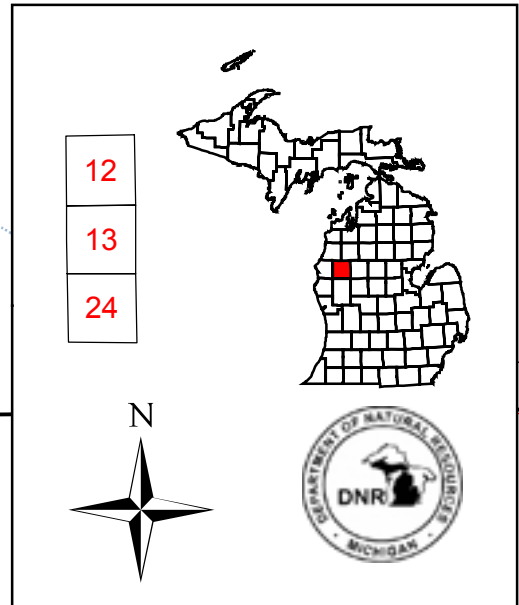
- **The following 5 reports from the IFMAP system are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Cover Type by Management Objective**
 - ◆ **Compartment Volume Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

- **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

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

Compartment 2
 T20N, R12W, Sec. 12, 13, 24
 County: Lake
 Unit: Cadillac
 YOE: 2010
 Acres: 1,279 GIS Calculated
 Stand Examiner: Rick Hill
 Map Revised: 8/28/2008
 Map Phase: Pre-Review



Legend

- Miris Corners
- Railroads
- Paved Road
- Poor Dirt Road
- Intermittent Stream/Drain
- Stream
- Trails
- ORV Routes
- Motorcycle Trails
- Snowmobile Trails
- Lakes and Rivers All

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)
- Selection (Group, Single Tree)

Forest Stands

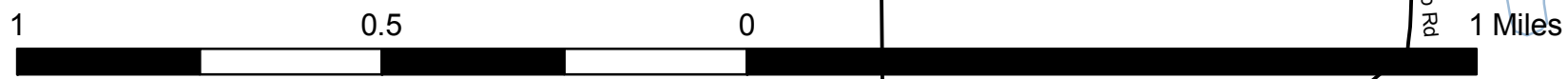
Level 3

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

Non-Forest Stands

Level 3

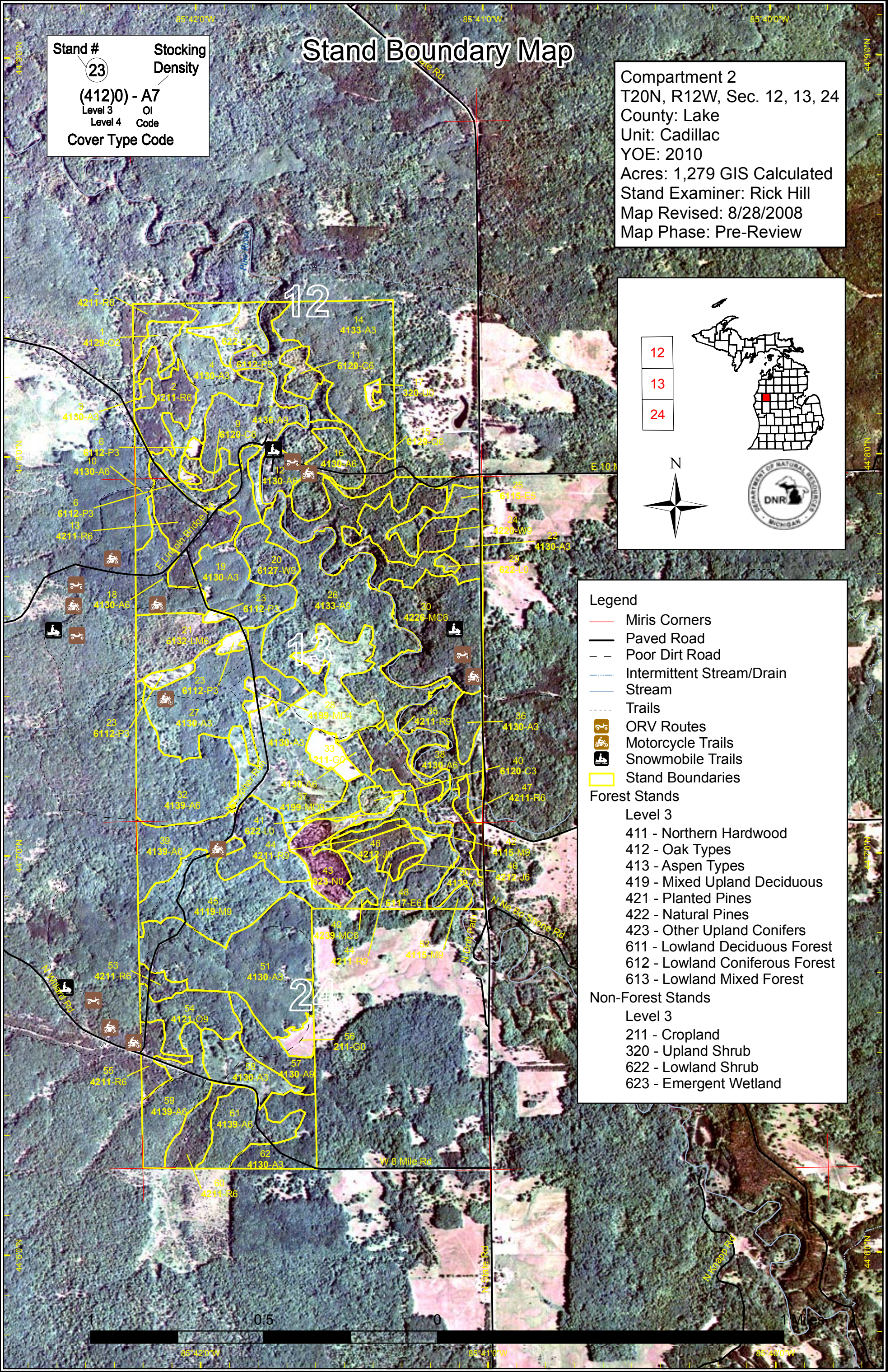
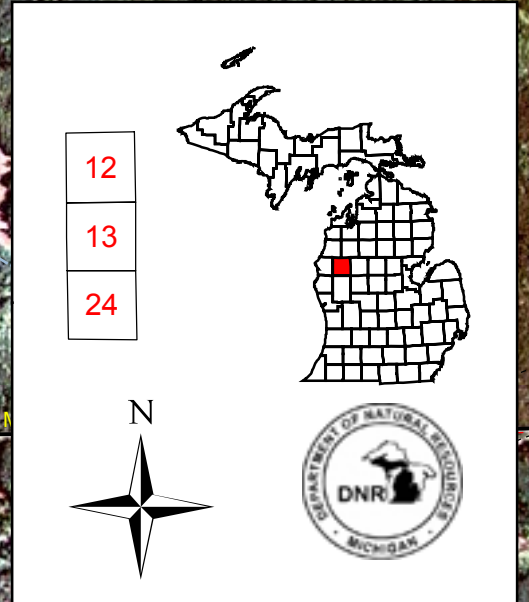
- 211 - Cropland
- 320 - Upland Shrub
- 622 - Lowland Shrub
- 623 - Emergent Wetland



Stand Boundary Map

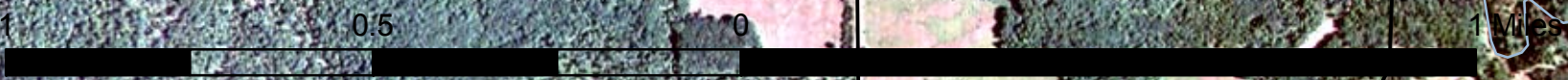
Stand #
23
 Stacking Density
(412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code

Compartment 2
 T20N, R12W, Sec. 12, 13, 24
 County: Lake
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Legend

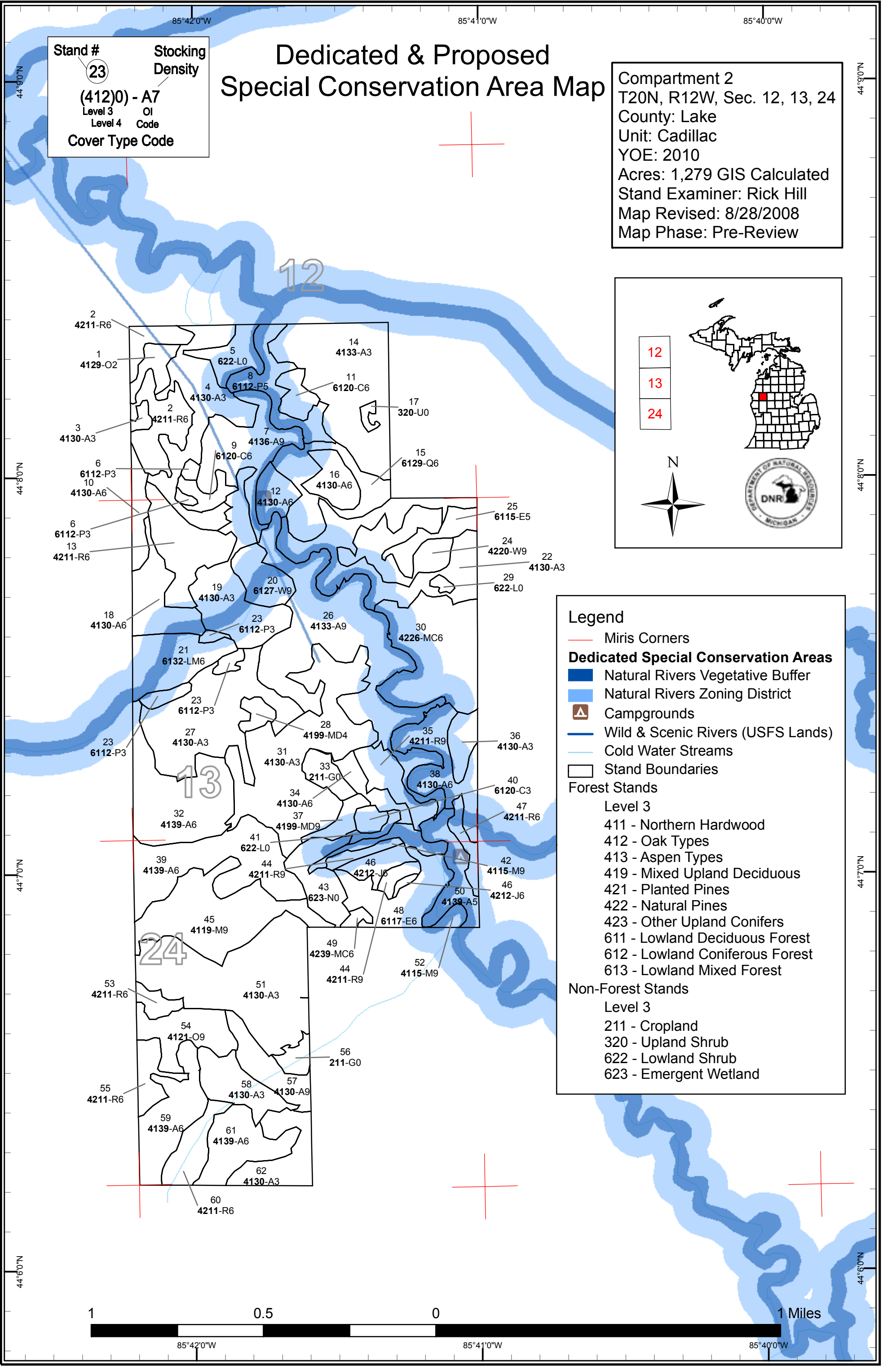
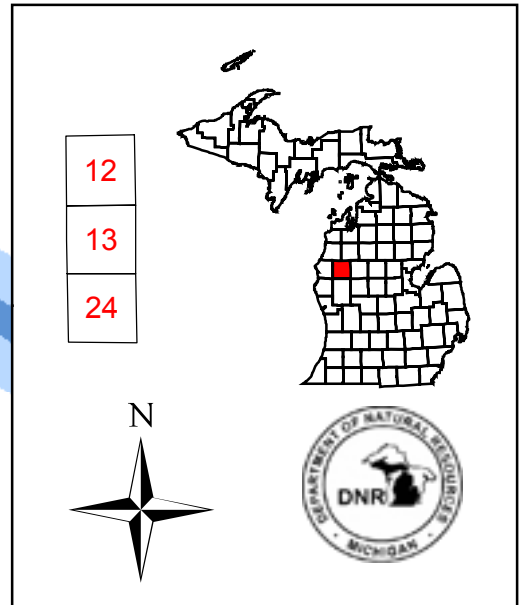
- Miris Corners
 - Paved Road
 - Poor Dirt Road
 - Intermittent Stream/Drain
 - Stream
 - Trails
 - ORV Routes
 - Motorcycle Trails
 - Snowmobile Trails
 - Stand Boundaries
- Forest Stands**
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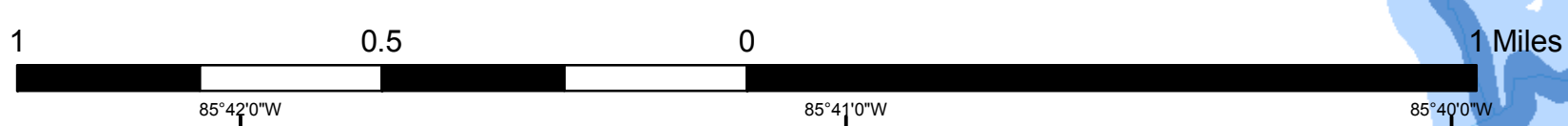
Dedicated & Proposed Special Conservation Area Map

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

Compartment 2
 T20N, R12W, Sec. 12, 13, 24
 County: Lake
 Unit: Cadillac
 YOE: 2010
 Acres: 1,279 GIS Calculated
 Stand Examiner: Rick Hill
 Map Revised: 8/28/2008
 Map Phase: Pre-Review



- Legend**
- Miris Corners
 - Dedicated Special Conservation Areas**
 - Natural Rivers Vegetative Buffer
 - Natural Rivers Zoning District
 - ▲ Campgrounds
 - Wild & Scenic Rivers (USFS Lands)
 - Cold Water Streams
 - Stand Boundaries
 - Forest Stands**
 - Level 3
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Cadillac Mgt. Unit

Covertime, Acres, and Age summary
(Level 3 Cover Type)

Compartment 002 Year of Entry 2010

Report Date: 08/28/2008



	Age Class															Total
	Non-Forested	1-9	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 Types	0	92.7	101.9	262.2	131.9	64.0	101.4	0	47.8	0	0	0	0	0	0	802.0
Cropland	12.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.6
Emergent Wetland	17.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.1
Lowland Coniferous Forest	0	0	0	0	0	0	0	17.3	38.4	0	0	0	0	0	0	55.7
Lowland Deciduous Forest	0	10.1	0	0	34.1	0	0	18.4	0	0	0	0	0	0	0	62.6
Lowland Mixed Forest	0	0	0	0	0	0	0	23.6	0	0	0	0	0	0	0	23.6
Lowland Shrub	15.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.5
Mixed Upland Deciduous	0	0	0	0	0	0	0	4.5	5.8	0	0	0	0	0	0	10.3
Natural Pines	0	0	0	0	0	49.7	0	0	0	23.3	0	0	0	0	0	73.0
Northern Hardwood	0	0	0	0	0	0	0	0	57.9	0	0	0	0	0	0	57.9
Oak Types	0	0	0	0	7.4	0	20.4	0	0	0	0	0	0	0	0	27.8
Other Upland Conifers	0	0	0	0	0	0	0	0	2.0	0	0	0	0	0	0	2.0
Planted Pines	0	0	0	0	0	22.7	89.4	0	0	0	5.0	0	0	0	0	117.1
Upland Shrub	1.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.7
Total	46.8	102.8	101.9	262.2	173.4	136.3	211.3	63.8	152.0	23.3	5.0	0	0	0	0	1278.7



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
2 63002002-Cut	27.2	42110 - Planted Red Pine	High Density Pole	51	Harvest	Systematic Thinning	Planted Red Pine

Rev This stand will be cut out of year of entry with the red pine stands in compartment 3. This is due to low acreage of red pine in compartment 3 and adjacency of this stand to one of the red pine stands in compartment 3.
Cmnt:

Rev This stand is being row thinned with all aspen and red maple being removed all oak and cherry that do not impede mobility in the rows is to be left.
Spec: Retention is to be included in post harvest residual

Next
Steps:

13 63002013-Cut	26.4	42110 - Planted Red Pine	High Density Pole	51	Harvest	Systematic Thinning	Planted Red Pine
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Rev
Cmnt:

Rev This stand is being row thinned with all aspen and red maple being removed all oak and cherry that do not impede mobility in the rows is to be left.
Spec: Retention is to be included in post harvest residual

Next
Steps:

18 63002018-Cut	20.2	4130 - Aspen	High Density Pole	48	Harvest	Clearcut with Reserves	Aspen, Oak
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Rev could include part of 21 if its not to wet.
Cmnt:

Rev Clearcut this stand green mark up to 40 Square feet northern pin oak and white oak where it won't affect aspen coppicing.
Spec:

Next
Steps:

21 63002021-Cut	3.3	6132 - Mixed Lowland Forest with Cedar	High Density Pole	65	Harvest	Clearcut	Lowland Aspen
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Rev
Cmnt: Try to include northern area with stand 18s commercial harvest.

Rev Habitat cut to wildlife division specs.
Spec:

Next
Steps:

35 63002035-Cut	13.4	42110 - Planted Red Pine	High Density Log	57	Harvest	Low Thinning	Planted Red Pine
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Rev This stand has been thinned already in some areas it has not been thinned
Cmnt:

Rev Thin by marking worst red pine of every three orange. In areas that have not been thinned mark rows for operability. Leave oak in the stand also leave black cherry. Remove all red pine and aspen in the stand Retention will be included in the residual left after the thin.
Spec:

Next none
Steps:

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
44 63002044-Cut	8.0	42110 - Planted Red Pine	High Density Log	57	Harvest	Clearcut	Planted Red Pine

Rev
Cmnt:

Spec: This is a red pine stand with a jack pine strip in-between its two ends the south strip needs to be row thinned, there is a hill that needs to be skidded up to access the stand but I think the area is operable. The northern half of the stand has been thinned once and should be thinned the trees are growing vary well and may make poles at some point. One other option is to clearcut the stand for age class and due to operability. This would be because of the strip of jack pine in between the red

Next
Steps:

45 63002045-Cut	47.3	4119 - Mixed Northern Hardwoods	High Density Log	74	Harvest	Single Tree Selection	S.Maple, Hard Mast Association
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Rev
Cmnt: There are some wet areas that can be avoided when marking.

Spec: Thin for crop tree release. Create regeneration gaps where possible. Shoot for 80 SF residual after the harvest. Retention will be included in the residual. Acceptable regeneration will be a mix of red oak, red maple, sugar maple, black cherry and beech.

Next
Steps:

46 63002046-Cut	8.7	42120 - Planted Jack Pine	High Density Pole	57	Harvest	Clearcut	Planted Red Pine
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Rev
Cmnt: A significant amount of road work needs to be done along with a culvert or temp bridge being used for crossing a small creek.

Spec: Clearcut this stand and plant the area to red pine. Due to the cover type conversion there will be no retention

Next
Steps: Trench and hand plant red pine.

53 63002053-Cut	5.0	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	90	Harvest	Group Selection	Aspen, Mixed Pine
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Rev
Cmnt:

Spec: The stand should be thinned to increase diversity regenerate aspen and to improve red pine growth. This sale most likely will need to be a marked thin. Mark for mobility first and form second. Shoot for target basal areas of 130 SF in areas of mostly red pine in predominately aspen areas mark gaps for aspen regeneration.

Next
Steps:

54 63002054-Cut	20.4	4121 - Oak, Aspen	High Density Log	58	Harvest	Clearcut with Reserves	Aspen, Oak
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Rev
Cmnt:

Spec: Clearcut this stand green mark up to 40 Square feet northern pin oak and white oak where it won't affect aspen coppicing.

Next
Steps:

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
55 63002055-Cut	9.4	42110 - Planted Red Pine	High Density Pole	47	Harvest	Low Thinning	Planted Red Pine

Rev
Cmnt:

Rev Thin this stand, mark orange to cut for operability first and form second. also remove red maple and aspen. Leave all oak and black cherry. Retention will be included in residual left in the stand post harvest
Spec:

Next
Steps:

57 63002057-Cut	15.7	4130 - Aspen	High Density Log	56	Harvest	Clearcut	Aspen
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Rev
Cmnt:

Rev Clearcut this aspen stand. Retention will be a small area in the cut with representative species. Acceptable regeneration will be a mix of aspen oak and red maple. If regeneration fails plant red pine in this stand.
Spec:

Next
Steps:

60 63002060-Cut	13.3	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	47	Harvest	Low Thinning	Planted Red Pine
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Rev
Cmnt: Rows are indistinct so this stand needs to be marked.

Rev Thin this stand, mark orange to cut for operability first and form second. Retention will be included in the residual left after the sale. Leave oak in the stand also leave black cherry. Remove all red maple and aspen in the stand
Spec:

Next
Steps:

**Total Treatment
Acreage Proposed: 218.2**

**PROPOSED TREATMENTS
WITH LIMITING FACTORS**



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Treatment Name	Acres	Stage1 Cover Type	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Page 1 of 1
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Limiting Factor
and Comment:

Rev
Cmnt:

Rev
Spec:

Next
Steps:

No Treatment
Reason

**Total Treatment
Acreage Proposed: 0**



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.

Inventory Method: IFMAP

Stand	SCA Name	Acres	Comments



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
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.
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 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	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites.
SCA	Wild and Scenic Rivers	Wild and Scenic Rivers are established under authority of the National Wild and Scenic Rivers Act, Public Law 90-542, as amended. Each Wild and Scenic River has a river specific Federal management plan, and State agencies may enter into written cooperative agreements with the administering Federal agency for the management of Wild and Scenic Rivers that are upon State-owned lands. There are 18 miles of Federal designated Wild and Scenic Rivers that are located within the State Forest.