

CADILLAC FOREST MANAGEMENT UNIT



COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 045 ENTRY YEAR: 2010

Compartment Acreage (GIS Acres): 1249 County: Osceola

Revision Date: 12/01/2008 11:29 AM

Stand Examiner: Cheryl Nelson, Forester

Legal Description: T20N R07W sections 2, 3, 14, 19, 21

RMU (if applicable): 314

Management Goals: Maintain diversity of grasses and cover types and age classes.

Soil and Topography: Nester-Kawkawlin-Sims Association. Well-drained to very poorly drained loamy soils on level to undulating slopes.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The parcels are scattered and surrounded by farmland, recreational land, and the village of Marion. Residences are scattered.

Unique, Natural Features (include only non-site specific and non-sensitive information): The Michigan Natural Features Inventory lists the Short-eared owl, Dickcissel, and Slippershell Mussel as having occurred in this compartment. This compartment has the potential for the Short-eared Owl, Northern Harrier, Henslow's Sparrow, Grasshopper Sparrow, Dickcissel, Blanding's Turtle, and Great Blue Heron rookeries.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): None known.

Special Management Designations or Considerations: Grass lies along the east side of M-66. Any burning that is done for grass maintenance will have to follow a smoke plan to prevent problems on the road. The integrity of the river and the access sites will be maintained.

Watershed and Fisheries Considerations: Much of this compartment is located adjacent the Middle Branch River or the Clam River. Both of these streams are high quality coldwater streams. For all clear cuts adjacent these streams I recommend the minimum buffer strip of 100 ft, increasing in size with land slope as indicated in Table 1 (page 9) of Michigan Department of Natural Resources, Water Quality Management Practices on Forest Land. In addition, all buffers should contain a 35 ft buffer that is untouched with no harvest or mechanical disturbance as indicated by Fisheries and Wildlife Guidelines.

There are several Stands that are of special concern due to the proposed clear-cut, aspen type cover objective. These stands are all immediately adjacent the stream and should have 300 ft buffers. These stands are 48, 56, 79, and 80. Beaver dams have been a problem on the Middle Branch River in the past and Fisheries Division and partners are working with the Village of Marion to remove their Mill Pond and another land owner to remove a dam remnant in the same area.

Wildlife Habitat Considerations: Priority wildlife species are deer, ruffed grouse, and woodcock. This compartment is the only one in RMU 314. The RMU agreement called for no change in types. A large part of this RMU is made up of a large grassland complex which was the original Prairie Chicken Management Area. Major management objectives are to maintain age class and cover type diversity and to maintain the grasslands 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 fine-textured till and fine-textured till. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Pennsylvanian Saginaw Formation. The Saginaw is quarried for clay/shale for brick making in other parts of the State. There are not any gravel pits in this area, and potential is questionable. The compartment is located one mile northeast of Winterfield Field. This field has produced over 1.1 million BO from the Devonian Richfield Formation and gas from the Prairie du Chien.

Section 2 is currently leased for oil and gas development.

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.

Survey Needs: None at this time.

Recreational Facilities and Opportunities: Access provided to Middle Branch River.

Fire Protection: Much of the land within this compartment is private. Fuels within this compartment should limit the potential for large fire growth, in most cases. With the numerous areas of urban interface, there is the possibility of human caused fires throughout the compartment.

Additional Compartment Information:

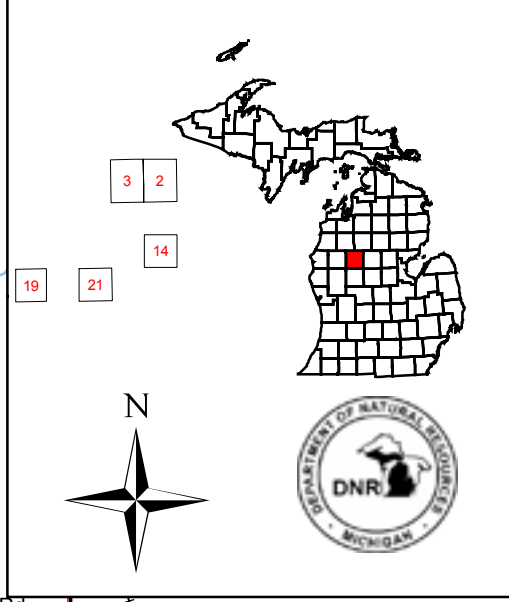
- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Cover Type by Management Objective**
 - ◆ **Compartment Volume Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

- **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**

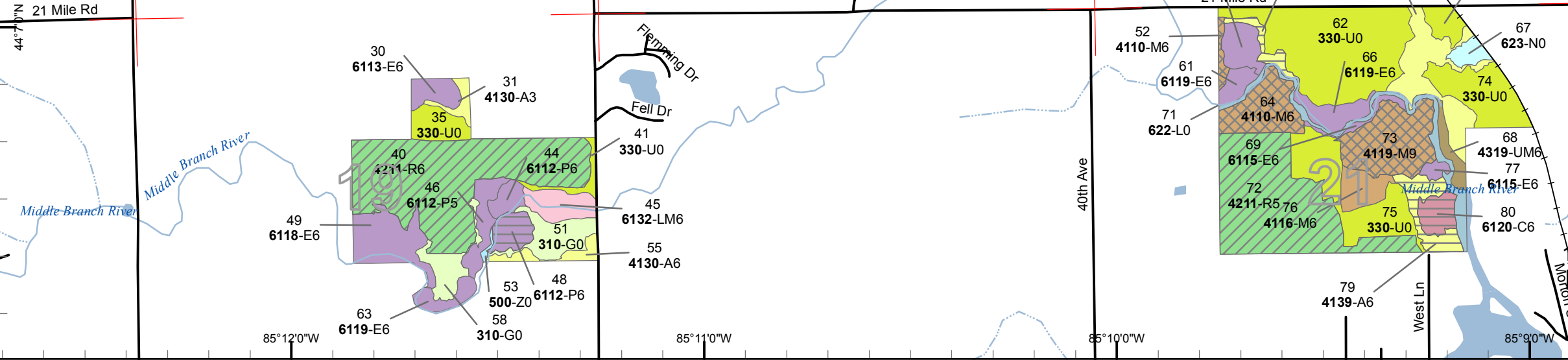
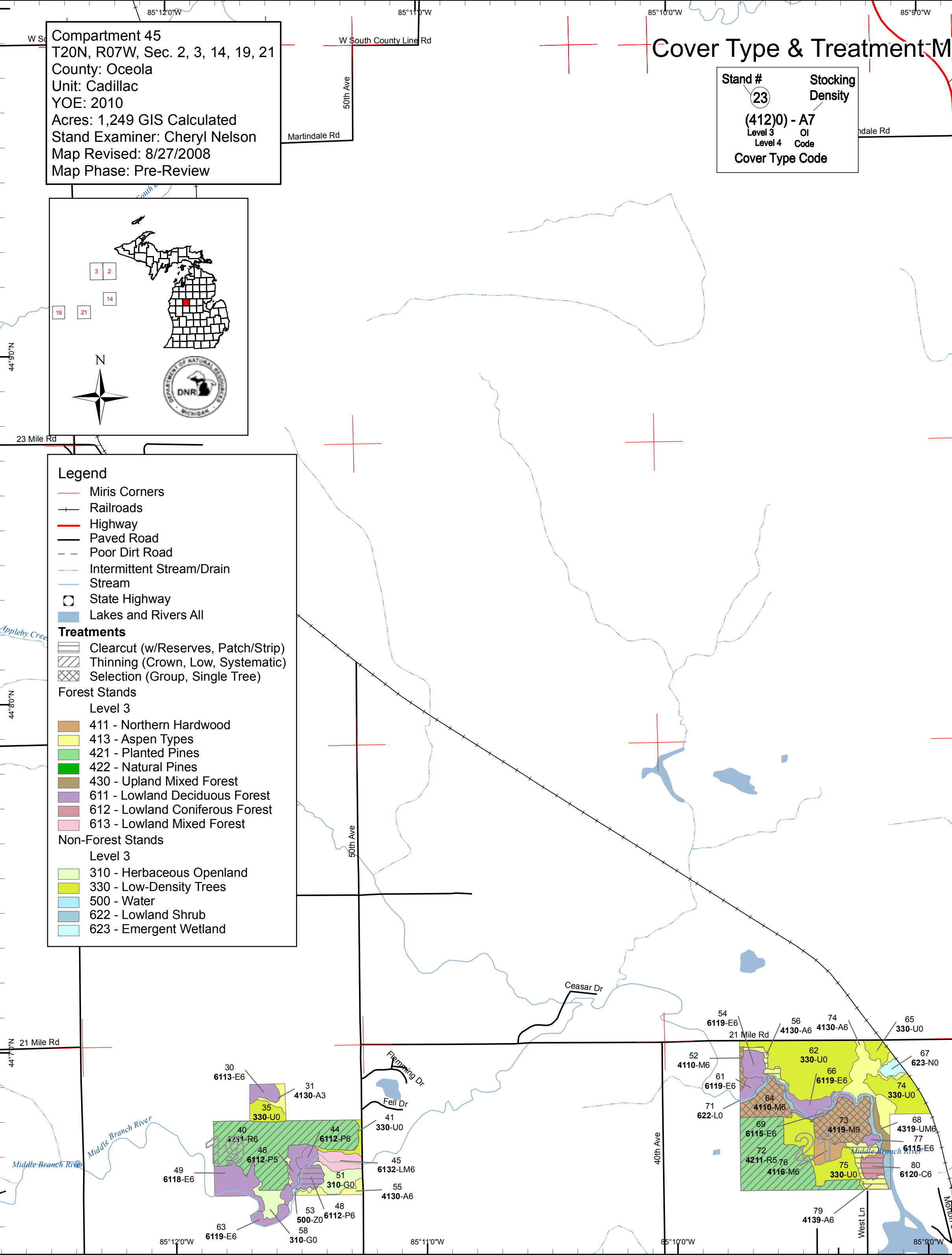
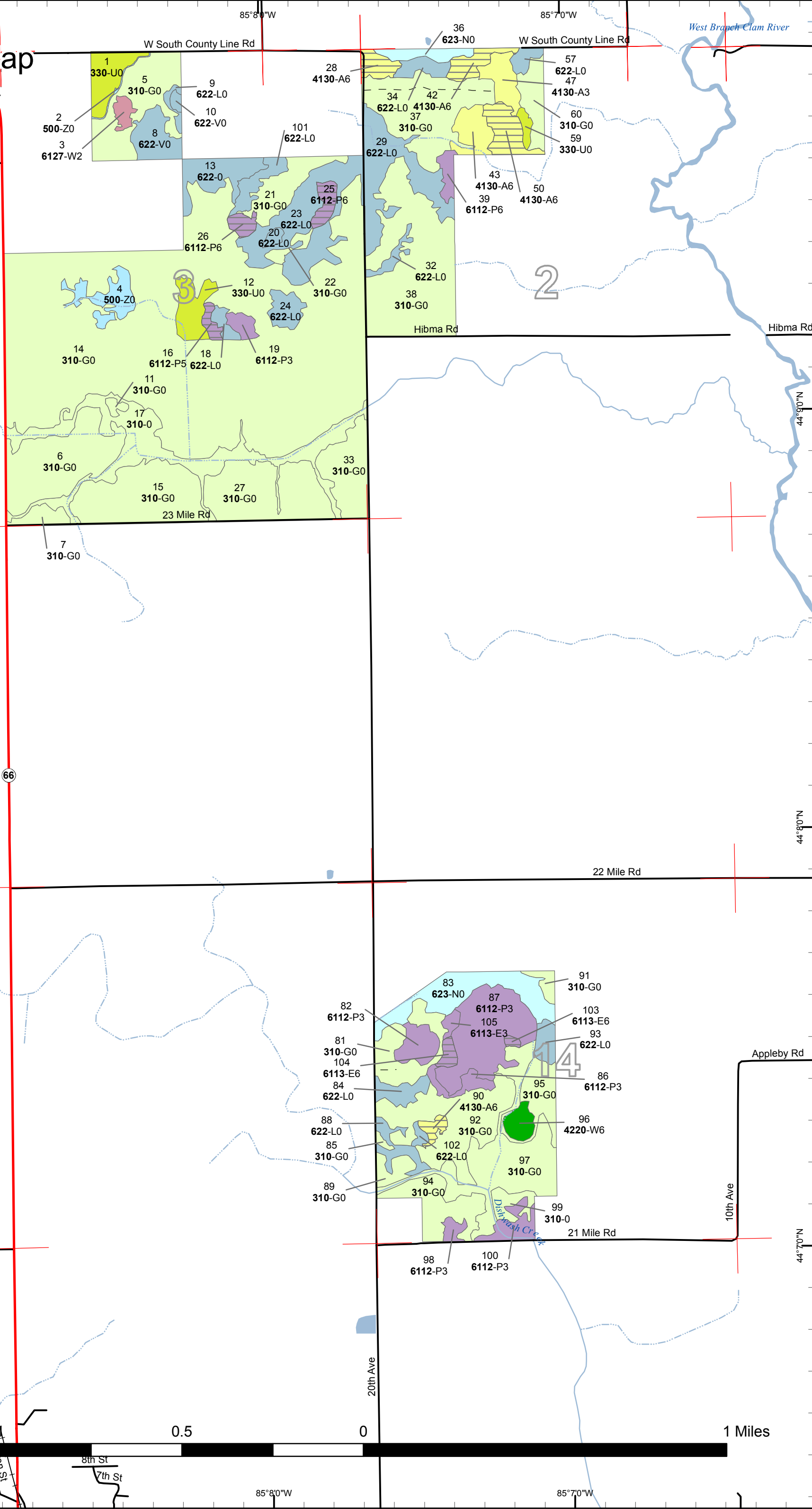
Cover Type & Treatment Map

Compartment 45
 T20N, R07W, Sec. 2, 3, 14, 19, 21
 County: Oceola
 Unit: Cadillac
 YOE: 2010
 Acres: 1,249 GIS Calculated
 Stand Examiner: Cheryl Nelson
 Map Revised: 8/27/2008
 Map Phase: Pre-Review

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



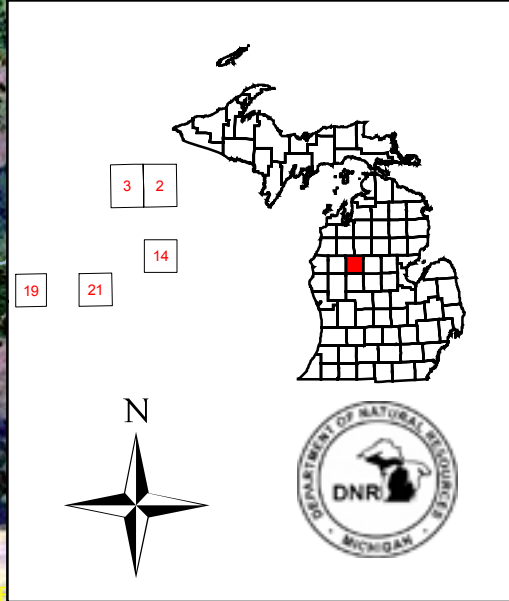
- Legend**
- Miris Corners
 - Railroads
 - Highway
 - Paved Road
 - Poor Dirt Road
 - Intermittent Stream/Drain
 - Stream
 - State Highway
 - Lakes and Rivers All
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
 - Thinning (Crown, Low, Systematic)
 - Selection (Group, Single Tree)
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
 - 413 - Aspen Types
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 430 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3
- 310 - Herbaceous Openland
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland



Stand Boundary Map

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- Legend**
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**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
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103	C45_S103-Cut	0.7	6113 - Lowland Maple	High Density Pole	40	Harvest	Clearcut	Aspen
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Rev Habitat management.
Cmnt:

Rev Clearcut
Spec:

Next
Steps:

104	C45_S104-Cut	2.0	6113 - Lowland Maple	High Density Pole	40	Harvest	Clearcut	Aspen
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Rev Habitat management.
Cmnt:

Rev Clearcut
Spec:

Next
Steps:

16	C45_S16-Cut	2.0	6112 - Lowland Aspen	Medium Density Pole	1972	Harvest	Clearcut	Aspen
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Rev Habitat management.
Cmnt:

Rev Clearcut
Spec:

Next
Steps:

25	C45_S25-Cut	3.6	6112 - Lowland Aspen	High Density Pole	1972	Harvest	Clearcut	Aspen
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Rev Habitat management.
Cmnt:

Rev Clearcut
Spec:

Next
Steps:

26	C45_S26-Cut	2.6	6112 - Lowland Aspen	High Density Pole	1972	Harvest	Clearcut	Aspen
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Rev Habitat management.
Cmnt:

Rev Clearcut
Spec:

Next
Steps:

28	C45_S28-Cut	4.1	4130 - Aspen	High Density Pole	1966	Harvest	Clearcut	Aspen
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Rev Habitat management.
Cmnt:

Rev Clearcut
Spec:

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
40 C45_S40-Cut	41.7	42110 - Planted Red Pine	High Density Pole	1963	Harvest	Systematic Thinning	Planted Red Pine
<p><u>Rev</u> SI = 55. Average diameter = 9". Wait 10 years? <u>Cmnt:</u></p> <p><u>Rev</u> Thin. Remove 1/3 BA. <u>Spec:</u></p> <p><u>Next</u> <u>Steps:</u></p>							
42 C45_S42-Cut	5.0	4130 - Aspen	High Density Pole	1954	Harvest	Clearcut	Aspen
<p><u>Rev</u> Habitat management. <u>Cmnt:</u></p> <p><u>Rev</u> Clearcut <u>Spec:</u></p> <p><u>Next</u> <u>Steps:</u></p>							
48 C45_S48-Cut	3.5	6112 - Lowland Aspen	High Density Pole	1983	Harvest	Clearcut	Aspen
<p><u>Rev</u> Habitat management. <u>Cmnt:</u></p> <p><u>Rev</u> Clearcut. Maintain buffer along Middle Branch River. <u>Spec:</u></p> <p><u>Next</u> <u>Steps:</u></p>							
50 C45_S50-Cut	8.1	4130 - Aspen	High Density Pole	1972	Harvest	Clearcut	Aspen
<p><u>Rev</u> Habitat management. <u>Cmnt:</u></p> <p><u>Rev</u> Clearcut <u>Spec:</u></p> <p><u>Next</u> <u>Steps:</u></p>							
56 C45_S56-Cut	2.0	4130 - Aspen	High Density Pole	1956	Harvest	Clearcut	Aspen
<p><u>Rev</u> Habitat management. <u>Cmnt:</u></p> <p><u>Rev</u> Clearcut <u>Spec:</u></p> <p><u>Next</u> <u>Steps:</u></p>							
64 C45_S64-Cut	9.1	4110 - Sugar Maple Association	High Density Pole	1933	Harvest	Single Tree Selection	Sugar Maple Association
<p><u>Rev</u> <u>Cmnt:</u></p> <p><u>Rev</u> Thin following Hardwood Marker guidelines. Release quality crop trees, create regen gaps where possible. <u>Spec:</u></p> <p><u>Next</u> <u>Steps:</u></p>							

**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
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72	C45_S72-Cut	33.5	42110 - Planted Red Pine	Medium Density Pole	1964	Harvest	Systematic Thinning	Planted Red Pine
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Rev SI = 55. Average diameter = 9". Wait 10 years?
Cmnt:

Rev Thin. Remove 1/3 BA.
Spec:

Next
Steps:

73	C45_S73-Cut	14.0	4119 - Mixed Northern Hardwoods	High Density Log	1933	Harvest	Single Tree Selection	Mixed Northern Hardwoods
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Rev Understory is being overtopped.
Cmnt:

Rev Thin following Hardwood Marker guidelines. Release quality crop trees, create regen gaps where possible.
Spec:

Next
Steps:

79	C45_S79-Cut	5.0	4139 - Aspen, Mixed Deciduous	High Density Pole	1956	Harvest	Clearcut with Reserves	Aspen, Mixed Deciduous
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Rev Cut commercially or habitat cut.
Cmnt:

Rev Cut all aspen, red maple, and ash.
Spec:

Next
Steps:

80	C45_S80-Cut	3.4	6120 - Lowland Cedar	High Density Pole	1956	Harvest	Clearcut with Reserves	Lowland Cedar
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Rev Cut commercially or habitat cut.
Cmnt:

Rev Cut all aspen and red maple.
Spec:

Next
Steps:

90	C45_S90-Cut	2.2	4130 - Aspen	High Density Pole	1960	Harvest	Clearcut	Aspen
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Rev Habitat management.
Cmnt:

Rev Clearcut
Spec:

Next
Steps:

**Total Treatment
Acreage Proposed: 142.6**

**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
52 C45_S52-Cut	1.1	4110 - Sugar Maple Association	High Density Pole	1934	Harvest	Single Tree Selection	Sugar Maple Association

Limiting Factor and Comment: 4D: Low volume (small acreage)

Rev Cmnt:

Rev Spec: Thin following Hardwood Marker guidelines. Release quality crop trees, create regen gaps where possible.

Next Steps:

No Treatment Reason

**Total Treatment
Acreage Proposed: 1.1**



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
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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.