

CADILLAC FOREST MANAGEMENT UNIT**COMPARTMENT REVIEW PRESENTATION****COMPARTMENT # 031 ENTRY YEAR: 2009****Compartment Acreage (GIS Acres): 1877 County: Osceola**

Revision Date: 09/27/2007 4:08 PM**Stand Examiner:** Cheryl Nelson, Forester**Legal Description:** T18N R09W Section 1, 12, 13**RMU (if applicable):** 315, also includes compartments 27, 28, 29, 30, 32, 33, 34, 35**Management Goals:** Habitat/Vegetation – timber intensive**Soil and Topography:** Chelsea-Rubicon-Montcalm association (sands). Rolling hills, some steep areas.**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Large contiguous state ownership. Adjacent private lands are not very developed.**Unique, Natural Features (include only non-site specific and non-sensitive information):** The Michigan Natural Features Inventory lists the Loon, Wood Turtle, and Blanding's Turtle as having occurred in this compartment. This compartment has the potential for the Red-Shouldered Hawk, Goshawk, and Box Turtle.**Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):** Parts of the area were a sheep ranch at one time.**Special Management Designations or Considerations:** The roads in this area are very bad and efforts will continue to upgrade them. Visual management techniques will be followed where necessary.**Watershed and Fisheries Considerations:** Fisheries concerns in this compartment are limited to stand 63 which partially border Twin Creek. The objective is to remove jack pine and allow the encroaching hardwoods to take over. Cutting within the 100 ft buffer is acceptable but some trees immediately adjacent the stream should be left if possible for shading and tree fall.**Wildlife Habitat Considerations:** Priority wildlife species are deer and ruffed grouse. There are nine compartments in this RMU. The agreement called for no change in habitat types. Major management objectives are to maintain the aspen type and age class diversity. Numerous problems exist in this RMU where oak stands are converting to red maple. (L. Smith, 9/24/07)**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of an end moraine of coarse-textured till. The glacial drift thickness varies between 600 and 1,000 feet. Beneath the glacial drift are the Pennsylvanian Grand River and Saginaw Formations. 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, but potential is good. The compartment is located two miles northeast of Cedar Field. The field has produced over 1 Bcf gas from the Stray Sand, over 1 million BO from the Devonian Richfield Formation and gas from the Prairie

du Chien. Parts of Sections 1 and 12 are currently leased for oil and gas development and additional leases are located to the west.

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.

Proposed new roads or roads recommended for substantial improvement are noted below:

None at this time.

Survey Needs: None at this time.

Recreational Facilities and Opportunities: The Evert Motorcycle Trail runs through all sections in the compartment. There is approximately 4.5 miles of trail through the compartment.

Fire Protection: This area is fairly remote, with very little urban interface. Fire protection would be from the Evert Field Office. The access would be fairly good for equipment. There is the potential for larger fires, due to the lack of natural barriers. Most fires would be surface fires, with not many areas having the potential for crown fires.

Cover Type details, Proposed Treatments, and Stand listings are listed in the attached reports:

- ◆ **Cover Type by Age Class**
- ◆ **Proposed Treatments – No Limiting Factors**
- ◆ **Proposed Treatments – With Limiting Factors**
- ◆ **Stand Listing – Forested**
- ◆ **Stand Listing – Non Forested**
- ◆ **Special Conservation Area (SCA) Details**

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**
- ◆ **SCA – Special Conservation Areas**





Stage 1 Acres Summary By Level 3 Cover Type By Age

Compartment: 63031

Date: 9/26/2007

	0	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	>89	Uneven Age	Grand Total
Aspen Types	0	0	324.5	304.9	2.7	0	0	0	3.6	229.3	23	0	888
Floating Aquatic	1.6	0	0	0	0	0	0	0	0	0	0	0	1.6
Herbaceous Openland	22.1	0	0	0	0	0	0	0	0	0	0	0	22.1
Low-Density Trees	28.8	0	0	0	0	0	0	0	0	0	0	0	28.8
Lowland Shrub	45.5	0	0	0	0	0	0	0	0	0	0	0	45.5
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	151.9	150.6	0	302.5
Natural Pines	0	0	0	0	0	0	0	0	0	0	3.8	0	3.8
Oak Types	0	0	0	0	0	0	0	0	86.4	199.5	210.6	0	496.5
Planted Pines	0	0	0	0	0	31.6	0	0	0	0	0	0	31.6
Sand, Soil	1.2	0	0	0	0	0	0	0	0	0	0	0	1.2
Water	54.9	0	0	0	0	0	0	0	0	0	0	0	54.9
Grand Total	154.1	0	324.5	304.9	2.7	31.6	0	0	90	580.7	388	0	1876.5

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

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Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Pg. 1
10 10 - Cut	44.3	4199 - Other Mixed Upland Deciduous	6	80	0	Seed Tree with Reserves	Regeneration	Oak, Aspen	
<u>Rev Cmnt:</u> Lots of multi-stemmed red maple about 6-7-8" dbh throughout stand. Black cherry and sassafras in clumps.									
<u>Rev Spec:</u> Cut all red maple, aspen, and sassafras. In oak areas, mark leave trees to ~30 BA. Mark sugar maple to keep. Acceptable regen is a mix of aspen, red maple, and oak. Focus retention along Cedar Road.									
<u>Next Steps:</u> Prescribe-burn to expose mineral soil for seed bed and to set-back red maple. Keep burn out of aspen areas. The burn boundary shown on the treatment map is based on stage 2 data. The actual boundary may vary as lines are run based on aspen locations.									
11 11-Cut	79.3	4131 - Aspen, Oak	9	83	43	Clearcut with Reserves	Regeneration	Aspen, Oak	
<u>Rev Cmnt:</u> Stand treated in 1964. Specs allowed for the removal of all merchantable aspen & soft maple containing one or more 100" pulpwood bolt to a 4" top DIB. Treated and un-treated areas were determined using stage 2 data for size and age.									
<u>Rev Spec:</u> Clearcut in aspen areas. In oak areas, treat to an average residual basal area of 30-40. Cut all aspen, red maple, and sassafras. The harvest boundaries shown on the treatment map are based on stage 2 data. Actual boundaries may vary as lines are run based on aspen locations. Acceptable regen is a mix of aspen, red maple, and oak. Leave retention in the form of green marked mature trees. If regen fails, an upland brush cover type is acceptable.									
<u>Next Steps:</u> Regen survey.									
12 12 - Cut	17.7	42110 - Planted Red Pine	6	41	0	Clearcut	Regeneration	Planted Red Pine	
<u>Rev Cmnt:</u>									
<u>Rev Spec:</u> Clearcut.									
<u>Next Steps:</u> Re-plant to red pine.									
18 18-Cut	8.4	42110 - Planted Red Pine	6	41	0	Clearcut	Regeneration	Planted Red Pine	
<u>Rev Cmnt:</u>									
<u>Rev Spec:</u> Clearcut.									
<u>Next Steps:</u> Re-plant to red pine. Expand planting into non-forested stand #20 up to 1.5 acres.									
19 19 - Cut	107.7	4199 - Other Mixed Upland Deciduous	9	87	0	Seed Tree with Reserves	Regeneration	Oak, Aspen	
<u>Rev Cmnt:</u> Small amount of oak seedlings and saplings to ~6-7 feet in height. Red maple heavy in understory. Aspen zones throughout stand. Harvest stand then perform a prescribed-burn to reduce red maple competition. Burn in areas without aspen.									
<u>Rev Spec:</u> Cut all aspen and red maple. Clearcut in aspen zones. In high oak BA areas, thin to a residual BA of 30-40'. Create regen gaps throughout. Mark some wolfy oaks to leave, especially in northwest corner of stand. Acceptable regen is a mix of oak, red maple, and aspen. Focus retention along ORV trail.									
<u>Next Steps:</u> Prescribe-burn to expose mineral soil for seed bed and to set-back red maple. Keep burn out of aspen areas. The burn boundary shown on the treatment map is based on stage 2 data. The actual boundary may vary as lines are run based on aspen locations.									

**PROPOSED TREATMENTS
NO LIMITING FACTORS**

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Treatment Name	Acres	Stage1 CovType	Size Density	1st Age	2nd Age	Treatment Method	Treatment Purpose	Cover Type Objective	Pg. 2
22 22-Seed Tree	37.8	4123 - Red Oak	9	90	17	Seed Tree	Regeneration	Oak, Aspen	

Rev Stand treated sale #630148901. Sale closed 1990. Specs allowed for the removal of all aspen and red maple with any commercial value. No cutting of oak, beech, or black cherry was allowed.

Rev Treat oak to an average BA of 20-30'. Cut all aspen and red maple. Mark some beech and black cherry to leave. Acceptable regen is a mix of oak, red maple, and aspen. Leave retention in the form of green marked mature trees.

Next Regen survey.
Steps:

22 22- Shelterwood	34.5	4123 - Red Oak	9	90	17	Shelterwood	Regeneration	Oak, Aspen	
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Rev Stand treated sale #630148901. Sale closed 1990. Specs allowed for the removal of all aspen and red maple with any commercial value. No cutting of oak, beech, or black cherry was allowed.

Rev Treat oak to a residual BA of 30-40'. Cut all aspen and red maple. Mark some beech and black cherry to leave. Acceptable regen is a mix of oak, red maple, and aspen. Leave retention in the form of green marked mature trees.

Next Regen survey.
Steps:

63 63 - Cut	4.5	42121 - Planted Jack Pine, Mixed Deciduous	6	47	0	Clearcut	Cover Type Conversion	Mixed Upland Forest	
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Rev "Fisheries concerns in this compartment are limited to stand 63 which partially border Twin Creek. The objective is to remove jack pine and allow the encroaching hardwoods to take over. Cutting within the 100 ft buffer is acceptable but some trees immediately adjacent the stream should be left if possible for shading and tree fall."

Rev Clearcut. Allow surrounding species to take over site. No retention is needed as this stand is transitioning to hardwoods. If regen fails, plant to a mix of jack pine and red pine. Focus retention along the stream per fisheries request.

Next Regen survey.
Steps:

64 64 - Cut	3.6	4131 - Aspen, Oak	6	78	0	Shelterwood	Intermediate Cut	Mixed Upland Forest	
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Rev Stand was originally a part of stand 55 but was left out of harvest in 2000. 1997 OI comments "protect advanced oak regen is south end of stand".

Rev Treat to an average residual BA of 40'. Open up around areas of oak regen. Cut all aspen and red maple. Mark some beech and black cherry to leave. Focus retention along roadway. If regen fails, plant to red pine.

Next
Steps:

**Total Treatment
Acreage Proposed: 337.5**

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Cadillac

Mgt. Unit

**PROPOSED TREATMENTS
WITH LIMITING FACTORS**

Compartment: 31

Entry Yr: 2009

Inventory Method: IFMAP

Treatment
Name

Acres

Stage1
CovType

Size
Density

1st
Age

2nd
Age

Treatment
Method

Treatment
Purpose

Cover Type
Objective

Pg. 1

Limiting Factor
and Comment:

Rev
Cmnt:

No Stands with Limiting Factors

Rev
Spec:

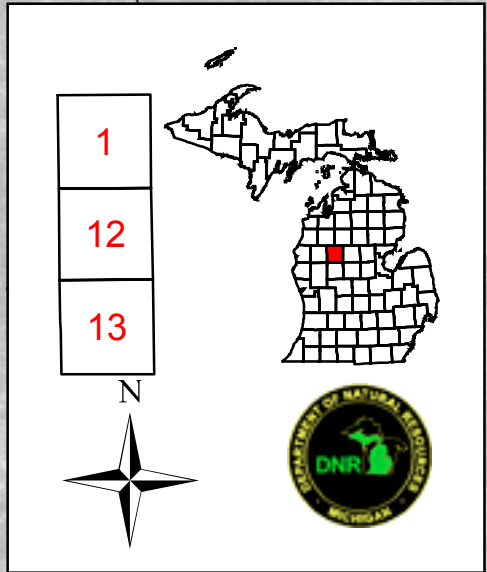
Next
Steps:

Total Treatment
Acreage Proposed: 0

Field Map

Compartment 31
 T18N, R09W, Sec. 1, 12, 13
 County: Osceola
 Unit: Cadillac
 YOE: 2009
 Acres: 1,877 GIS Calculated
 Stand Examiner: Cheryl Nelson
 Map Revised: 8/20/2007
 Map Phase: Pre-Review

Stand # **23** Stocking Density
(A)(4120) - 7
 OI Level 3
 Code Level 4
 Cover Type Code



Legend

- Miris Corners
- Paved Road
- Trails
- Intermittent Stream/Drain
- Stream
- Motorcycle Trails
- Stands
- Clearcut
- Clearcut with Reserves
- Seed Tree
- Seed Tree with Reserves
- Shelterwood

Forest Stands

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines

Non-Forest Stands

- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 500 - Water
- 621 - Floating Aquatic
- 622 - Lowland Shrub
- 710 - Sand, Soil

