

## CADILLAC FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

## COMPARTMENT # 87 ENTRY YEAR: 2012

GIS Compartment Acreage: 2383 County: Missaukee

**Revision Date: 9/9/10** 

**Stand Examiner:** Jim Malloy

Legal Description: T24N, R6W, Sections 4, 5, 6, 8, 9

**Management Goals:** To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management.

**Soils and Topography:** The predominant soils in the area of this compartment are Roscommon muck sand poorly drained. Rubicon, Graycalm well drained. Flat with some rolling hills except for areas in east part of section 4 which is very hilly. To the east is swampland and to the west are areas of upland hardwoods and aspen types.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Sections 4 and 5 are solid state ownership. In section 6 there is one private 40-acre parcel in (SWNE). The land to the north, east and west are mostly state-owned. To the south are mostly private lands and are either forested or being subdivided into smaller parcel for seasonal or hunting residents. The following parcels are recommended for acquisition if they become available for sale: SWNE section 6, SENW, SWNE section 8, NWNW section 9 T24N R6W.

#### Unique, Natural Features (include only non-site specific and non-sensitive information):

Hill's thistle occurrence to NE. 3111: irregular ice-contact ridges, few kettle lakes, excessively drained loamy sand Northern wet meadow documented about 1.25 miles to N. 5111: broad flat outwash plain, few kettle lakes, excessively drained sand Potential for red-shouldered hawk and northern goshawk. Potential for great blue heron rookery. Potential for northern harrier, least bittern, yellow rail, black tern, common moorhen, and American bittern. Potential for Blanding's turtle, eastern massasauga, and wood turtle. Osprey\* documented within compartment in sections 11 and 12; more records to NE. Eastern massasauga\* records in SW 1/4 of section 12 and NE 1/4 of section 13. Wood turtle\* recorded in NE 1/4 of section 21 and NW 1/4 of section 7; additional records to SE and NW. Kirtland's warbler to SE. Bald eagle within 1 mile to E in sections 5 and 6; more occurrences to NE. Great blue heron rookeries to E. Boreal brachionyncha to E. Secretive locust to SW. Slippershell mussel to SE. Bigmouth shiner records to SE and NE. VII.2.12121: flat moraine or till plain Beech-Sugar Maple-Hemlock Forest, Hemlock-White Pine Forest, Mixed Conifer Swamp, Mixed Hardwood Swamp, Mixed Pine-Oak Forest, White Pine-Red Pine Forest

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): No historical features are listed. There is a story about a still in the swamp hence the name of near-by Whiskey Creek.

Special Management Designations or Considerations: None

## Watershed and Fisheries Considerations: TBD

**Wildlife Habitat Considerations:** Featured wildlife species are deer, ruffed grouse, woodcock, and turkey. Management objectives are to maintain the aspen type, and maintain species and age-class diversity across the compartment. (L. Smith, 9/24/10)

## Mineral Resource and Development Concerns and/or Restrictions:

Sections 4-6, 8 and 9, T24N-R6W, Missaukee County Surface sediments consist of ice-contact outwash sand and gravel. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan Formation is used for gypsum in other areas of the State. Gravel pits surround the compartment, and potential is considered to be good. Cannon Creek Field is located along the west edge of the compartment. The Field produced gas from the Devonian Traverse Limestone and oil from the Detroit River Sour Zone. One active (?) Detroit River Sour Zone well is located in the SW SW of Section 6. All of the State land is currently leased for oil and gas development.

**Vehicle Access:** There are no bridges within the compartment. A forest road access plan is detailed on the compartment map.

Survey Needs Survey corners are needed around the SWSN section 6 and in the N1/2 section 9.

**Recreational Facilities and Opportunities:** The Miss Kal Snowmobile Trail runs east west through the northern portion of sections 4, 5, 6. The North Missaukee ORV Trail also runs through the compartment. Motorized wheeled vehicles have also substantially impacted the Shell pipeline along the south side of section 6. Significant increase in ORV use has been occurred in the last few years in this area. The NENE portion of section 6 is used as campsite through out the year. The area has several old hunting camps that are use though out the hunting season.

Fire Protection: Initial attack for suppression is split in this compartment, with Houghton Lake Field Office responding to fires east of 7 Mile Rd., and the Manton Field Office responding to fires west of 7 Mile Rd. There are "no plow" zones located within the compartment and on neighboring private lands. Limited access, areas of pine, and response time add to the potential for large fire growth within portions of the compartment. 10-6-10/BRA

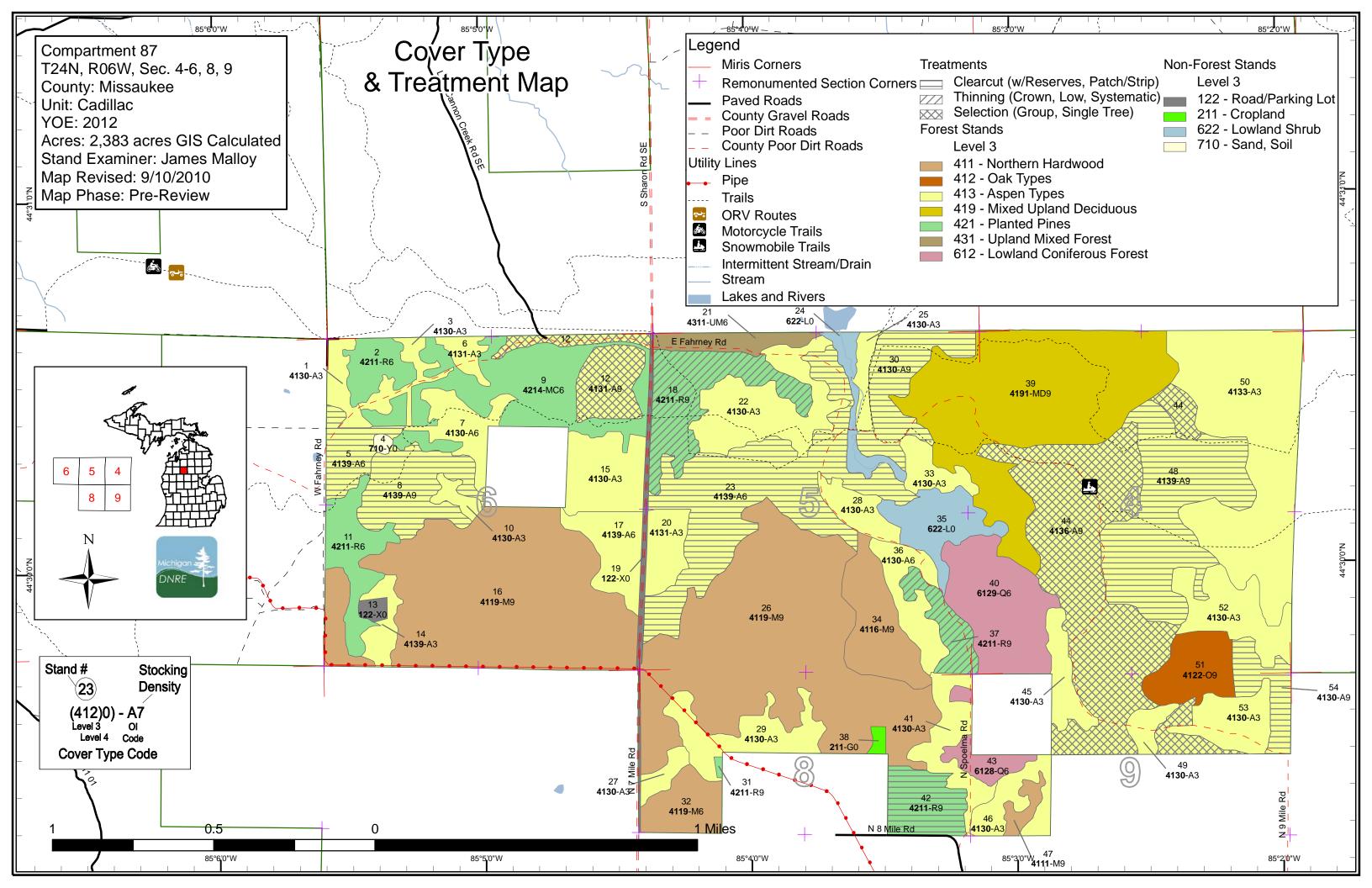
Additional Compartment Information: New Oil and gas exploration has led to an increase in the number of oil wells that may be in the compartment. The department has been contacted about a new well site to be developed in NENW of section 6.

LOTS Compartment Acreage:\_\_\_\_\_

- > 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

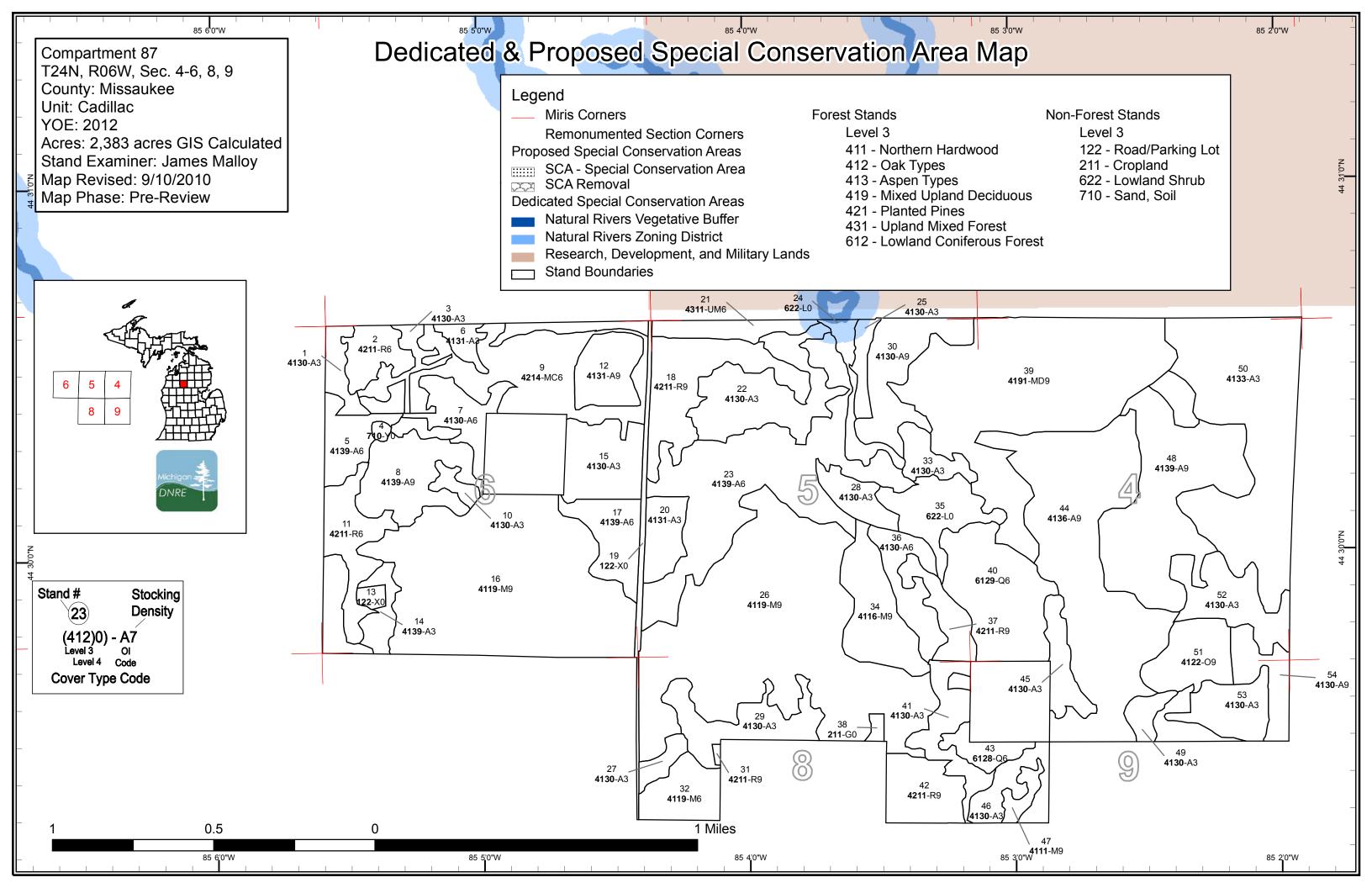


Stand Boundary Map Compartment 87 T24N, R06W, Sec. 4-6, 8, 9 County: Missaukee Legend Unit: Cadillac Miris Corners Trails Forest Stands ----YOE: 2012 Remonumented Section Corners Paved Roads County Gravel Roads **ORV** Routes Level 3 Acres: 2,383 acres GIS Calculated Motorcycle Trails Stand Examiner: James Malloy Snowmobile Trails 412 - Oak Types County Gravel Roads Poor Dirt Roads 413 - Aspen Types Map Revised: 9/10/2010 Utility Lines County Poor Dirt Roads Map Phase: Pre-Review • Pipe 421 - Planted Pines Intermittent Stream/Drain \_\_. Stream Lakes and Rivers **Stand Boundaries** 5 6 4 8 9 Stand # Stocking Density (23)(412)0) - A7 Level 3 OI Level 4 Code Cover Type Code 1 Miles



- 411 Northern Hardwood 419 - Mixed Upland Deciduous 431 - Upland Mixed Forest 612 - Lowland Coniferous Forest
- Non-Forest Stands Level 3 122 - Road/Parking Lot 211 - Cropland 622 - Lowland Shrub 710 - Sand, Soil





## Table 1 – Total Acres by Cover Type and Age Class

Cadillac Mgt. Unit

Data updated yesterday after 6:00 PM

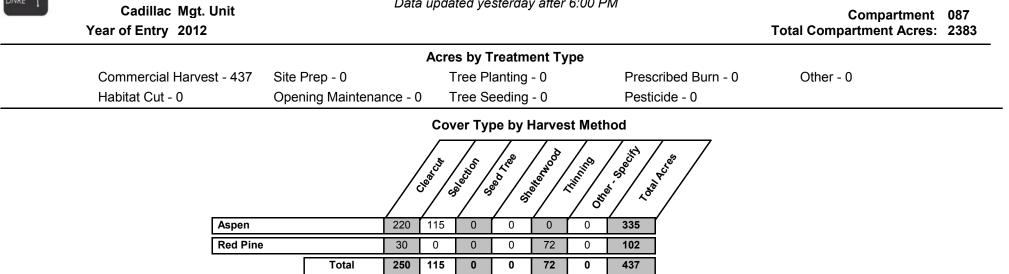
Compartment 087 Year of Entry 2012



	Age Class																
	Nor	A See OF	6.z	10 <sup>,7</sup> 9	6;-;-	60.00 00	10-A2	65:36	69.00	10 12 10	69.00 69.00	66:00		8 <sup>17</sup> 0 <sup>17</sup>	NO X DI	AND	, 0 <sup>20</sup>
Aspen	0	125	215	0	41	270	235	22	0	0	0	0	0	0	302	1210	
Cropland	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Lowland Conifers	0	0	0	0	0	0	0	0	0	14	67	0	0	0	0	81	
Lowland Shrub	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	189	189	
Northern Hardwood	0	0	0	0	0	0	0	43	32	0	252	0	0	0	221	548	
Oak	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	
Planted Mixed Pines	0	0	0	0	0	86	0	0	0	0	0	0	0	0	0	86	
Red Pine	0	0	0	0	0	124	30	0	0	0	0	0	0	0	0	154	
Sand, Soil	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	17	
Urban	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	
Total	67	125	215	0	41	479	266	96	32	14	318	0	0	0	728	2383	J

# Table 2 – Proposed Treatment Summaries

Data updated yesterday after 6:00 PM



		Ca	dillac Mgt. Unit			atments Pres		Compartment: 087	4
S t	Data up	dated y	vesterday after 6:	00 PM wit	h No L	imiting Fact	tor	Year of Entry 2012	Michigan DNRE
a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	63087005-Cut	18.6	4139 - Aspen, Mixed Deciduous	High Density Pole	47	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal
Pres Spec		rvest. Le	ave island for retention	on NW of trail rd in N	W corne	er of stand.			
<u>Othe</u> Com	<u>er</u> iments:								
<u>Next</u> Step									
8	63087008-Cut	46.2	4139 - Aspen, Mixed Deciduous	High Density Log	57	Harvest	Clearcut with Reserves	Aspen, Oak	Cmpt. Review Proposal
Pres Spec		rvest asp	en and red maple. L	eave oak and other	hardwoo	d. Allow stand t	o convert over toime to	mix of oak/hardwood w	ith pockets of
Othe Com Next	<u>iments:</u>								
<u>312</u>	63087012-Cut	36.1	4131 - Aspen, Oak	High Density Log	42	Harvest	Group Selection	Oak, Pine	Cmpt. Review
Pres Spec		e and oal	k to a residual BA of	50. Remove all asp	en and re	ed maple.			Proposal
Othe									
<u>Next</u> Step									
18	63087018-Cut	53.5	42110 - Planted Red Pine	High Density Log	48	Harvest	Low Thinning	Planted Red Pine	Cmpt. Review Proposal
Pres Spec		e to a BA	of 110. Remove all	remaining white pine	e from pl	antation.			
<u>Othe</u> Com	<u>er</u> iments:								
<u>Next</u> Step									
23	63087023-Cut	47.7	4139 - Aspen, Mixed Deciduous	High Density Pole	46	Harvest	Clearcut	Aspen	Cmpt. Review Proposal
<u>Pres</u> Spec		stand. I	Jse treatment to brea	ik this large stand in	to smalle	er portion of vario	ous age classes.		
<u>Othe</u> Com	erTreat 1/2 iments:	2 to 1/3 o	f total stand area (13	3ac)					
<u>Next</u> Step		other 1/3	to 1/2 nest entry						
30	63087030-Cut	35.1	4130 - Aspen	High Density Log	49	Harvest	Clearcut with Reserves	Aspen, Oak	Cmpt. Review Proposal
<u>Pres</u> Spec	<u>scription</u> Final hai <u>cs:</u>	rvest leav	ve all oaks.						
<u>Othe</u> Com	er Only trea	at portion	of stand north of sno	owtrail.					
<u>Next</u> Step									

s Data		idillac Mgt. Unit /esterday after 6.			atments Pres _imiting Fact		Compartment: 087 Year of Entry 2012	
a n Treatmer d Name	nt Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
37 63087037-	<b>Cut</b> 18.9	42110 - Planted Red Pine	High Density Log	49	Harvest	Low Thinning	Planted Red Pine	Cmpt. Review Proposal
Prescription Thir Specs:	i pine to a res	sidual BA of 110						
<u>Other</u> Fina Comments:	I harvest sta	nd next entry						
<u>Next</u> Steps:								
42 63087042-	<b>Cut</b> 29.6	42110 - Planted Red Pine	High Density Log	58	Harvest	Clearcut	Planted Red Pine	Cmpt. Review Proposal
Prescription Fina Specs:	I harvest pine	e plantation.						
<u>Other</u> Star <u>Comments:</u>	nd should be	chipped following ha	rvest to allow for rep	lanting.				
<u>Next</u> Trer <u>Steps:</u>	nch and repla	nt with red pine.						
44 63087044-	<b>Cut</b> 78.8	4136 - Aspen, Mixed Conifer	High Density Log	54	Harvest	Group Selection	Aspen, Mixed Conifer	Cmpt. Review Proposal
Prescription Han Specs:	vest aspen ar	nd balsam. mark wh	ite pine and maple to	leave.	target a residal E	3A 30-40 where pine is	present.	
<u>Other</u> Trea Comments:	at southern 1	/2 of stand to break u	ip large complex.					
<u>Next</u> Steps:								
48 63087048-	<b>Cut</b> 50.5	4139 - Aspen, Mixed Deciduous	High Density Log	51	Harvest	Clearcut with Reserves	Aspen, Oak	Cmpt. Review Proposal
Prescription Fina Specs:	Il harvest leav	ve all oaks and cherr	у.					
<u>Other</u> Trea Comments:	at norther 1/2	of stand bust stay se	outh of ORV Trail wh	en runni	ng sale boundary	/ line.		
<u>Next</u> Steps:								
54 63087054-	<b>Cut</b> 21.8	4130 - Aspen	High Density Log	63	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal
Prescription Fina	Il harvest leav	ve only oak due to pr	ivate boundary.					
<u>Other</u> Surv Comments:	vey may be n	eeded to establish p	rivate boundary.					
<u>Next</u> Steps:								
Total Treat Acreage Prop		36.9						

Acreage Proposed: 436.9

S t	Data upo		llac Mgt. Unit terday after 6:0			ents Prescrib ng Factor	ed with	Compartment: 087 Year of Entry 2012	
a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error						
Presc Specs	ription <u>s:</u>								
<u>Other</u> Comr									
<u>Next</u> Steps	<u>::</u>								
	ng Factor and Ne ment Reason	<u>)</u>							
Ac	Total Treatmer creage Propose		0						

0

#### Out of YOE -- Treatments Prescribed with No Limiting Factor

Year of Entry: 2012



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
Prescription Specs:								
<u>Other</u>								

Comments:

<u>Next</u> Steps:

> Total Treatment Acreage Proposed:

S t	Cadillad	Cadillac Mgt. Unit			ested Sta	ter 6:00 PM Year of Entry: 2012
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	High Density Sapling	12.1	35		mostly small diameter aspen with scattered pine throughout stand.
2	42110 - Planted Red Pine	High Density Pole	19.1	49	141-170	stand is a mix of red pine and white pine plantation.
3	4130 - Aspen	High Density Sapling	12.4	7		aspen stand surrounded by red pine plantations. cut last entry.
5	4139 - Aspen, Mixed Deciduous	High Density Pole	21.3	47	51-80	pole/log aspen mixed red maple and scattered large white pine
6	4131 - Aspen, Oak	High Density Sapling	8.1	17		stand was cut in previous entry.
7	4130 - Aspen	High Density Pole	23.8	46	51-80	
8	4139 - Aspen, Mixed Deciduous	High Density Log	46.2	57	51-80	
9	42140 - Planted Mixed Pine	High Density Pole	85.6	49	141-170	stand is a mix of red pine and white pine plantation with scattered small aspen clones and oaks.
10	4130 - Aspen	High Density Sapling	6.2	14		
11	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	32.5	49	111-140	plantation red pine with a heavy aspen and maple understory.
12	4131 - Aspen, Oak	High Density Log	36.1	42	51-80	mix of pine aspen and oaks.
14	4139 - Aspen, Mixed Deciduous	High Density Sapling	12.5	41	51-80	small diameter stand.
15	4130 - Aspen	High Density Sapling	36.6	14		Sparce regen in areas
16	4119 - Mixed Northern Hardwoods	High Density Log	220.6	Uneven Age	81-110	cut last entry
17	4139 - Aspen, Mixed Deciduous	High Density Pole	28.5	36	51-80	mix of maple, aspen and beech. some hard maple and ash
18	42110 - Planted Red Pine	High Density Log	53.5	48	171-200	stand is a mix of red pine and white pine plantation.
20	4131 - Aspen, Oak	High Density Sapling	18.9	Uneven Age		Recent Aspen Cut with scattered overstory oaks
21	4311 - Pine, Aspen Mix	High Density Pole	16.7	Uneven Age		

S t	Cadillad	Cadillac Mgt. Unit		<b>5 – For</b> ata updated ye	r <mark>ested Sta</mark> esterday a	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4130 - Aspen	High Density Sapling	55.7	14		stand was cut last entry
23	4139 - Aspen, Mixed Deciduous	High Density Pole	133.2	46	81-110	
25	4130 - Aspen	High Density Sapling	9.3	7		Recent Aspen Cut
26	4119 - Mixed Northern Hardwoods	High Density Log	251.7	97	51-80	log oak stand was cut last entry. stand also contains mixed hardwood component.
27	4130 - Aspen	High Density Sapling	7.6	7		Recent Aspen Cut. scattered cherry left during harvest.
28	4130 - Aspen	High Density Sapling	16.0	7		Recent Aspen Cut, residual overstory of oak.
29	4130 - Aspen	High Density Sapling	35.6	14		aspen mixed with red maple. cut last entry.
30	4130 - Aspen	High Density Log	42.9	49	81-110	pole log aspen stand.
31	42110 - Planted Red Pine	High Density Log	0.9	59	141-170	small portion of pine plantation that extends onto private
32	4119 - Mixed Northern Hardwoods	High Density Pole	25.2	78	51-80	looks to have been thinned. lots of beech and ironwood regen. some maple. thin next entry when there are more logs.
33	4130 - Aspen	High Density Sapling	14.6	16		Young aspen mixed with scattered pine
34	4116 - Mixed N. Hardwood - Aspen	High Density Log	42.9	67	51-80	
36	4130 - Aspen	High Density Pole	26.1	Uneven Age	51-80	Younger aspen with a scattering over overstory oaks and pine.
37	42110 - Planted Red Pine	High Density Log	18.9	49	171-200	
39	4191 - Mixed Upland Deciduous with Conifer	High Density Log	189.1	Uneven Age		poor quality oak with multiple aged white pine, maple and young aspen clones.
40	6129 - Mixed Coniferous Lowland Forest	High Density Pole	66.6	92	51-80	
41	4130 - Aspen	High Density Sapling	27.1	7		Recent Aspen Cut
42	42110 - Planted Red Pine	High Density Log	29.6	58	141-170	stand was thinned last entry.

S t	Cadillac Mgt. Unit			<b>5 – For</b> ata updated ye	ested Sta	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	14.1	89		mix of cedar, aspen, maple and spruce/fir.
44	4136 - Aspen, Mixed Conifer	High Density Log	188.8	54		
45	4130 - Aspen	High Density Sapling	17.9	5		Recent Aspen Cut
46	4130 - Aspen	High Density Sapling	21.1	17		
47	4111 - S.Maple, Hard Mast Association	High Density Log	7.1	78	51-80	Small hardwood stand surrounded by aspen clear-cut
48	4139 - Aspen, Mixed Deciduous	High Density Log	109.3	Uneven Age		
49	4130 - Aspen	High Density Sapling	8.7	5		Recent Aspen Cut
50	4133 - Aspen, Mixed Pine	High Density Sapling	147.4	Uneven Age	51-80	stand was cut last entry all aspen was removed. overstory oak, pine, and maple.
51	4122 - Oak, Pine	High Density Log	30.9	69	51-80	Thinned last entry
52	4130 - Aspen	High Density Sapling	37.4	17		
53	4130 - Aspen	High Density Sapling	26.4	5		Recent Aspen Cut
54	4130 - Aspen	High Density Log	21.8	63	51-80	

Cadillac Mgt. Unit

6 – Nonforested Stands

Compartment: 087 Year of Entry: 2012



Data updated yesterday after 6:00 PM

Stand	Cover Type	Acres	Gen Cmts:
4	710 - Sand, Soil	1.9	former well site. sand and ferns.
13	122 - Road/Parking Lot	3.6	old gas well. poison gas signs posted.
19	122 - Road/Parking Lot	12.3	
24	6220 - Alder/willow	14.4	aspen and tag alder surrounding beaver ponds.
35	6220 - Alder/willow	32.8	
38	2114 - Other Cropland	2.4	open field. looks to be hay or alfala



#### 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.

Data updated yesterday after 6:00 PM

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.

Conservatic Area	on Type	Data updated yesterday after 6:00 PM Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from s approved distance from the river centerlines. The Natural Rive most Natural Rivers. The Vegetative Buffer ranges from 25 to and Vegetative Buffers for each Natural River see the table loca folder.	rs Zoning District is a 400 foot buffer for 100 feet. To view specific Zoning Districts
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated f include the 5,847 acre Forest Fire Experiment Station, the 12,0 Area, the Beaver Islands Archipelago Wildlife Research Area (f High and Hog Islands, all state owned land on Beaver, South F Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries R Nursery, and over 144,000 acres of Military Lands.	00 acre Houghton Lake Wildlife Research that includes most of Garden Island, all of ox and North Fox Islands), the Cusino