

Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63100 Entry Year 2019 Acreage: 2,541

County Missaukee

Management Area: Upper Muskegon

Revision Date: 2017-06-12 Stand Examiner: Steve Eisele

Legal Description:

T21N R5W Sections 12,14,15,16

Identified Planning Goals:

Vegetation management in the Upper Muskegon management area will provide forest products; maintain or enhance wildlife habitat; protect areas of unique threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management for this 10-year period will focus on harvesting older jack pine and balancing age class distributions of oak, aspen and red pine. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation. Expected trends within this 10-year planning period are the need to manage exotic species (especially Phragmites and glossy buckthorn), the need to continue to manage cover types for a balanced age-class distribution and an expected increase in recreation pressure.

Soil and topography:

Rubicon and Croswell sands with some Lupton muck and Histosols along the Muskegon river. Mid compartment has some rolling hills, the edges are relatively flat.

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

The Muskegon river is in the NE portion of section 13 and on the east end of the compartment. Recent aquisitions have now made the entire compartment state ownership.

Unique Natural Features:

Muskegon river and various seeps and bogs.

Archeological, Historical, and Cultural Features:

East Moddersville cemetery in section 16. Old foundations and homesteads along Dolph road. No concerns.

Special Management Designations or Considerations:

Massasagua documented in section 13. Osprey to the north and secretive locust to the south west. Potential for great blue heron, wood turtle, eagle, goshawk, red shouldered hawk and blanding's turtle.

Watershed and Fisheries Considerations:

The Muskegon River flows through Compartment 63100. This reach of the Muskegon River has been recently stocked with Great Lakes muskellunge. In the past, walleye have also been stocked in this area as well. This reach of the Muskegon River is also known for good northern pike fishing.

Wildlife Habitat Considerations:

Featured wildlife species include deer, bear, ruffed grouse, woodcock, beaver, and, in the eastern end of the compartment, eastern massauga rattlesnakes. Management objectives are to retain a variety of cover types and age class diversity as well as maintain and/or enhance habitat including work on openings and edges to preserve wildlife viewing and hunting opportunities. (A. Herban 6/07/17)

Mineral Resource and Development Concerns and/or Restrictions

There is currently no known metallic mineral potential in this part of the state. An active sand/gravel pit is located less than two miles to the northwest, in Section 5, and there appears to be good sand and gravel potential within the compartment. The nearest current or past oil and gas production is greater than three miles away and includes the Cranberry Lake gas storage field to the southwest. There has been some exploration in the vicinity of the compartment, all of which were reported as dry holes. Much of the compartment is currently leased by Marathon for oil and gas exploration but no drilling is anticipated, and Marathon is in the process of releasing all of their state leases.

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:

Recreational Facilities and Opportunities:

A large portion of the Leota ORV Trail system is located within this compartment. Policy and Procedure 32.22-01 (Best Management Practices for Forest and Wildlife Management Adjacent to Recreational Trails).should be considered if forest treatments impact these motorized recreational trails. (T.M.N. 12-6-16).

Fire Protection:

The Initial Attack for this compartment is from the Houghton Lake Field Office. There is little urban interface within the compartment. The compartment has few roads, but timber & terrain would allow for good access for equipment.

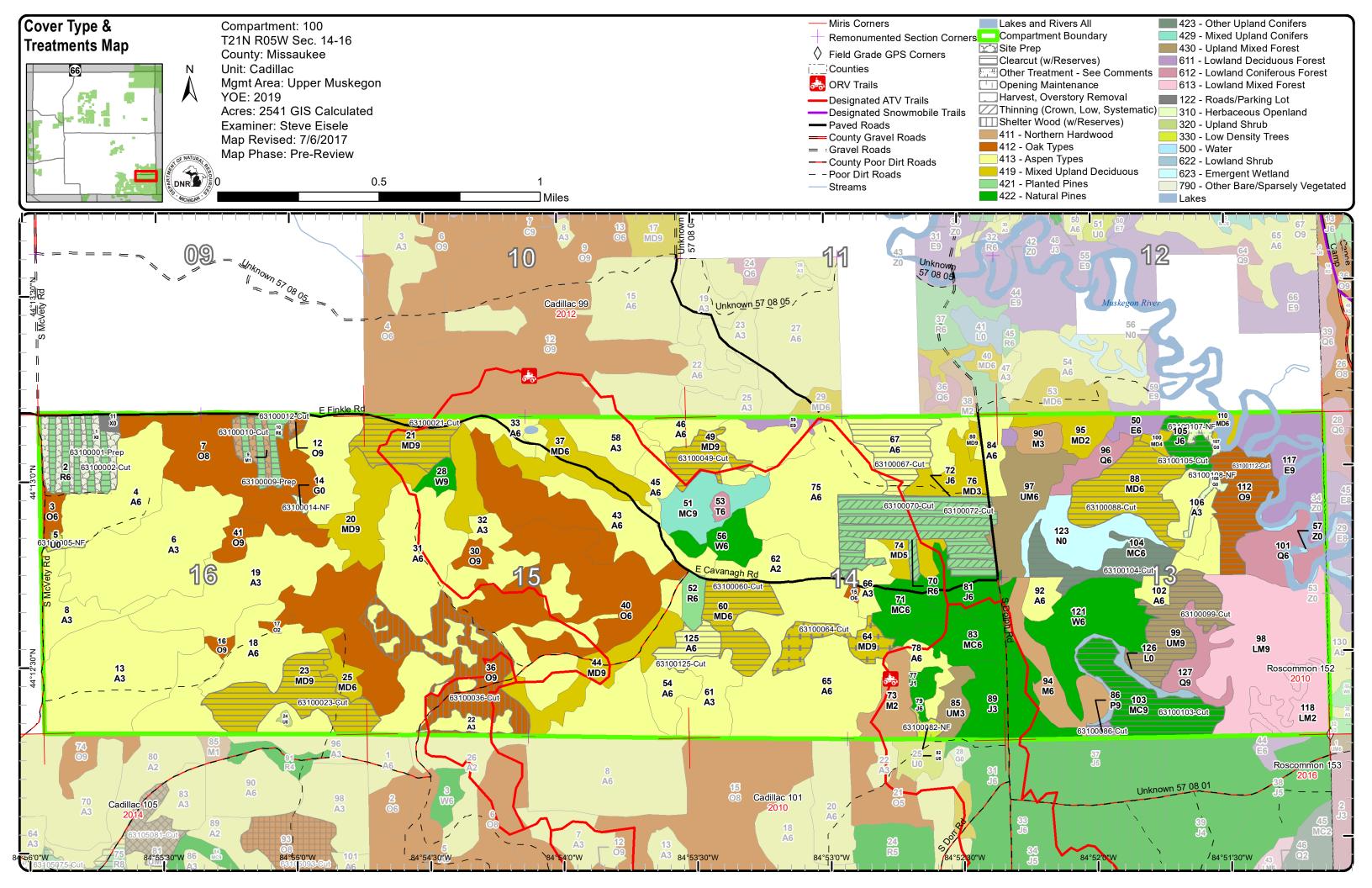
Additional Compartment Information:

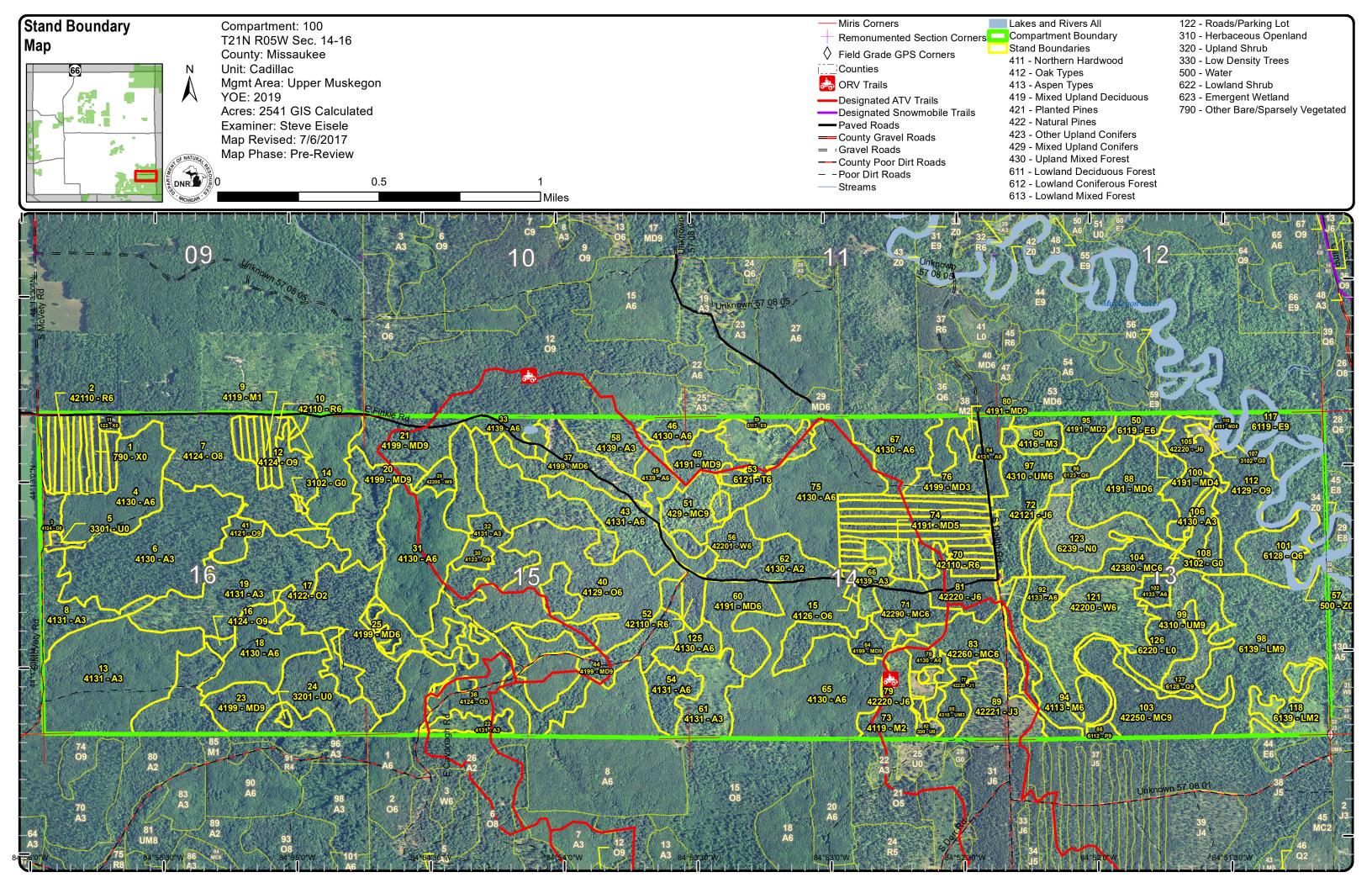
The following reports from the Inventory are attached:

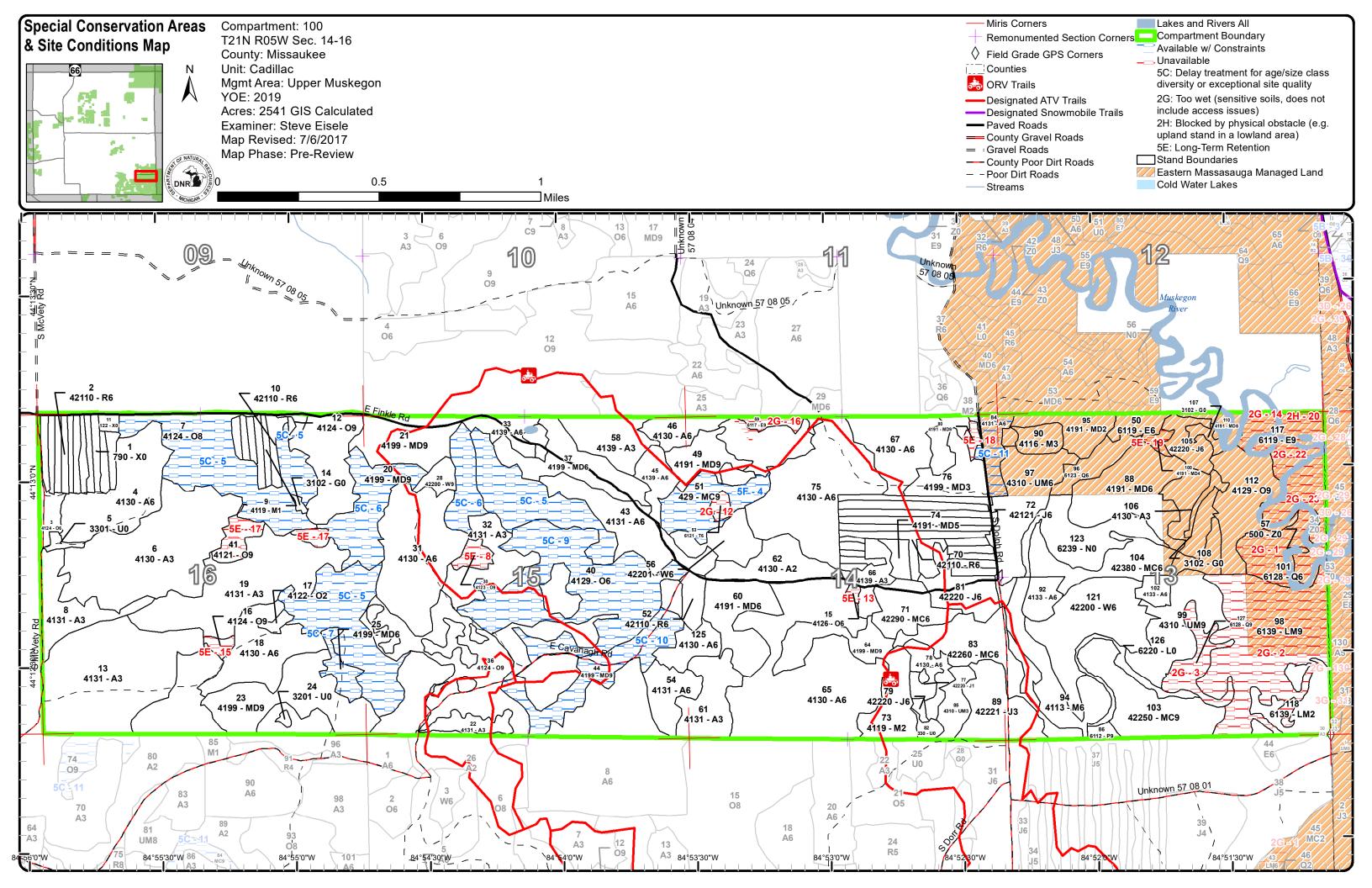
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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







Report 1 – Total Acres by Cover Type and Age Class

Cadillac Mgt. Unit

Steve Eisele: Examiner

Compartment 100 Year of Entry 2019



Age Class

						,		,				,	,	,					, , , , , , , , , , , , , , , , , , , ,
		40 /	/ 8 / s			g /		, 3 / %	/ 8 / 15	/ \? \$			0,00	(s) /			Z LES Z	/ 8*	N. A.
	/ % 0,			/ *	/ "5"	/ *	\ \sigma_{\rm \cdot \cdo	/ 6	/ ^	/ %	/ %	1/2		/ 🖔		/ "		1500	/ /
Aspen	0	217	177	574	14	0	23	28	0	0	0	0	0	0	0	0	0	0	1033
Bare/Sparsely Vegetated	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Herbaceous Openland	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Jack Pine	0	35	4	0	0	18	0	39	2	0	0	0	0	0	0	0	0	0	98
Low-Density Trees	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Conifers	0	0	0	25	0	0	11	0	0	16	0	0	0	0	0	0	0	0	52
Lowland Deciduous	0	0	0	0	0	0	0	14	0	0	0	43	0	0	0	0	0	0	57
Lowland Mixed Forest	0	22	0	0	0	0	0	0	0	87	0	0	0	0	0	0	0	0	108
Lowland Shrub	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Marsh	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Mixed Upland Deciduous	0	0	0	70	0	3	27	65	0	52	125	0	0	0	0	0	0	0	342
Natural Mixed Pines	0	0	0	0	0	0	50	38	0	0	0	0	0	0	0	0	0	0	88
Northern Hardwood	0	15	0	20	0	0	27	0	0	0	0	0	0	0	0	0	0	0	62
Oak	0	0	2	0	0	8	1	11	0	158	177	0	0	0	0	0	0	0	357
Red Pine	0	0	0	0	0	0	0	58	7	0	0	0	0	0	0	0	0	0	65
Tamarack	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
Upland Conifers	0	0	0	0	0	0	0	25	0	24	0	0	0	0	0	0	0	0	49
Upland Mixed Forest	0	0	0	10	35	0	0	0	0	33	0	0	0	0	0	0	0	0	78
Upland Shrub	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Water	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
White Pine	0	0	0	0	0	47	0	16	0	0	6	0	0	0	0	0	0	0	69
Total	78	289	183	699	49	76	142	294	12	370	308	43	0	0	0	0	0	0	2541



Report 2 – Treatment Summary

Cadillac Mgt. Unit Year of Entry: 2019

Acres of Harvest

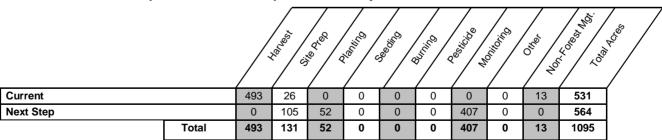
Compartment 100
Total Compartment Acres: 2,541

Commercial Harvest - 492 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method

			117 July 1	TO T	100 July 100	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	O No	Sining Solo	K. Outo V. O.	88.15		, \$1.5°
Aspen		39	0	0	0	0	0	0	0	0	39	
Jack Pine		39	0	0	0	0	0	0	0	0	39	
Lowland Aspen/Balsam Poplar		3	0	0	0	0	0	0	0	0	3	
Mixed Upland Deciduous		155	0	0	0	0	0	18	0	0	173	
Natural Mixed Pines		38	0	0	0	0	0	0	0	0	38	
Oak		34	0	0	0	51	0	0	0	0	85	
Red Pine		26	0	0	0	0	32	0	0	0	58	
Upland Conifers		25	0	0	0	0	0	0	0	0	25	
Upland Mixed Forest		33	0	0	0	0	0	0	0	0	33	
	Total	391	0	0	0	51	32	18	0	0	493	

Proposed and Next Step Treatments by Method



Cadillac Mgt. Unit Report 3 -- Treatments Compartment: 100 s Year of Entry: 2019 а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Approval n Age Method Objective Status Name Density Structure d CoverType Age Range **Type** 63100001-790 - Other 4211 - Planted 1 18.6 Nonstocked 0 Unspec SitePrep Roller Chopping Even-Aged Proposal Bare/Sparsely Red Pine Prep ified Vegetated **Habitat Cut: No Site Condition:** Prescription Roller chop and prep for trenching and planting of red pine when adjoining strips are done with harvest Specs: Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant **Treatments:** Acceptable planted red pine Regen: Other Comment: **Proposed Start Date:** 10/01/2018 63100002-Cut 15.7 42110 - Planted Poletimber 62 111-Harvest Clearcut 4211 - Planted Even-Aged Proposal Red Pine Well 140 Red Pine **Habitat Cut:** No **Site Condition:** Prescription Final harvest with chip spec to prepare for planting Specs: Next Step SitePrep, Trenching; Planting, Initial Plant Treatments: Acceptable planted red pine Regen: Other Comment: **Proposed Start Date:** 10/01/2018 63100005-NF 2.1 3301 - Low Density Nonstocked Unspec NonForestMgt **Brush Cutting** 320 - Upland Proposal **Deciduous Trees** ified Shrub **Habitat Cut: No Site Condition:** Prescription Maintain in an open state. Brushing and cutting a few trees should accomplish this goal. In addition, native grasses and forbs as well as mast bearing Specs: shrubs and trees may be planted. Treatment of invasive species as needed. Next Step **Treatments:** Acceptable

Regen:

Other

Comment:

Proposed Start Date:

10/01/2018

63100009-4119 - Mixed 9

1-50 Red Pine Prep Northern Hardwoods Poor

SitePrep

Roller Chopping

Habitat Cut: No Site Condition:

Prescription roller chop and prepare for planting when adjoining strips are harvested

Sapling

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant

Treatments:

Acceptable planted red pine

Regen:

Other Comment:

Proposed Start Date: 10/01/2018 Proposal

4211 - Planted

Even-Aged

S t		Ca	adillac Mgt. Unit		Re	port 3	Treatmen	ts		tment: 100 Entry: 2019	OF NATURAL RESERVED TO THE PARTY OF THE PART
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
10	63100010-Cut	10.1	42110 - Planted Red Pine	Poletimber Well	62	111- 140	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
		rvest with	Site Condition: chip spec to prepare		of red	pine					
	Step SitePre ments:	p, Trench	ing; Planting, Initial	Plant							
Acce Rege		red pine									
Other Com	<u>r</u> ment:										
Prop	osed Start Date:	10/0	1/2018								
12	63100012-Cut	2.0	4124 - Red with White Oak	Sawtimber Well	85	81-110	Harvest	Clearcut with Retention	4121 - Oak, Aspen	Even-Aged	Proposal
		ut, leave o	Site Condition: bak less than 10 inch						·		
<u>Next</u> <u>Treat</u>	Step Monitor ments:	ing, Natu	ral Regen (Re-Invent	cory)							
Acce Rege		leciduous									
Other Com	<u>r</u> ment:										
Prop	osed Start Date:	10/0	1/2018								
14	63100014-NF	0.9	3102 - Grass	Nonstocke	t	Unspec ified	NonForestMgt	Brush Cutting	310 - Herbaceous Openland		Proposal
			Site Condition: en state. Brushing a may be planted. Tre	nd cutting a				goal. In addition, na	·	orbs as well as	mast bearing
Next Treat	Step ments:										
Acce Rege	<u>ptable</u> en:										
Othe Com	<u>r</u> ment:										
Prop	osed Start Date:	10/0	1/2018								

21 63100021-Cut 28.1 4199 - Other Mixed Sawtimber 90 81-110 Harvest Clearcut with 412 - Oak Types Even-Aged Proposal

Upland Deciduous Retention Well

Habitat Cut: No **Site Condition:**

Prescription Clear cut, leave approx. 20-30 ba, Do not cut any oak less than 8 inch

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of oak/deciduous

Regen: <u>Other</u>

Stay south of Finkle road.

Comment:

63100060-Cut Poletimber 81-110 Clearcut with 4191 - Mixed 4191 - Mixed Harvest Even-Aged Proposal **Upland Deciduous** Well Retention Upland

with Conifer

Deciduous with

Conifer

Habitat Cut: No

Site Condition:

Prescription Clear cut with reserves, cut all but leave all oak and pine less than 10 inch dbh

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable mixed deciduous with conifer

Regen:

Other

Comment:

S t	C	adillac Mgt. Unit		Re	port 3	Treatmer	nts		ment: 100 Entry: 2019	DNR DNR
a n Treatment d Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
64 63100064-Cut	17.9	4199 - Other Mixed Upland Deciduous	Sawtimber Well	90	51-80	Harvest	Overstory Removal	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Proposal
Habitat Cut: No Prescription Remove Specs:	e log size	Site Condition: trees and release re	generation.	Mark a _l	pproximate	ely 10-20 ba of o	oak to leave for ma	ast.		
Next Step Monito Treatments:	ring, Natu	ral Regen (Re-Invent	ory)							
Acceptable Mixed Regen:	deciduous	with conifer								
Other Comment:										
Proposed Start Date	<u>:</u> 10/0	1/2018								
67 63100067-Cut	27.6	4130 - Aspen	Poletimber Well	60	Unspec ified	Harvest	Clearcut with Retention	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Proposal
Habitat Cut: No Prescription Final has Specs:	arvest lea	Site Condition: ve some healthy oak	approx. 30	ba						
Next Step Monito Treatments:	ring, Natu	ral Regen (Re-Invent	ory)							
Acceptable Mixed Regen:	upland de	ciduos								
Other Comment:										
Proposed Start Date	<u>:</u> 10/0	1/2018								
70 63100070-Cut	32.1	42110 - Planted Red Pine	Poletimber Well	63	141- 170	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
Habitat Cut: No Prescription Thin ou Specs:	ut remainir	Site Condition: ng defect down to app	orox. 100-11	0 ba						
Next Step Treatments:										
Acceptable Red Pi Regen:	ne									
Other Comment:										
Proposed Start Date	<u>:</u> 10/0	1/2018								
72 63100072-Cut	27.6	42121 - Planted Jack Pine, Mixed Deciduous	Poletimber Well	63	81-110	Harvest	Clearcut	42260 - Natural Pine, Mixed Deciduous	Even-Aged	Proposal
<u>Habitat Cut:</u> No <u>Prescription</u> Clear of <u>Specs:</u>	ut with sp	Site Condition: ecs for re planting red	quire chippir	ng						
•	ep, Scarifi	cation								

Comment:

Proposed Start Date:

Treatments:

Regen:
Other

sed Start Date: 10/01/2018

Acceptable Will fill in naturally with pine and mix deciduous for now.

Site Condition: Prescription cut pine down to a diameter of 10 inch dbh cut all other species to 2 inch Mark some mast oak to leave

Specs:

Habitat Cut: No

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of pine and deciduous

Regen:

Other winter or summer cut add massassauga spec

Comment:

Cadillac Mgt. Unit Report 3 -- Treatments Compartment: 100 s Year of Entry: 2019 а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Approval n Age Method Objective Status Name Density Structure d CoverType Age Range Type 63100103-Cut 4191 - Mixed 103 37.9 42250 - Pine, Oak Sawtimber 111-Harvest Clearcut with Even-Aged Proposal Upland Well 140 Retention Deciduous with Conifer **Habitat Cut: No** Site Condition: Prescription Clear cut all but mark some jack and oak to leave for seed and mast Leave all red pine Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Mixed conifer and deciduous Regen: Other winter or summer cut add massassauga spec Comment: **Proposed Start Date:** 10/01/2018 104 63100104-Cut 25.2 42380 - Non Pine Poletimber 60 81-110 Harvest Clearcut with 4190 - Mixed Even-Aged Proposal Upland Conifer. Well Retention Upland Mixed Deciduous Deciduous with Cedar **Habitat Cut: No Site Condition:** Prescription Clear cut leave oak and cedar Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Mixed deciduous Regen: Other some wet areas, could be difficult access, cut during dry or frozen add massassauga spec Comment: **Proposed Start Date:** 10/01/2018 42220 - Natural Poletimber 105 63100105-Cut 11.2 60 4310 - Pine, 81-110 Harvest Clearcut with Even-Aged Proposal Jack Pine Well Retention Oak Mix **Habitat Cut: No Site Condition:** Prescription Clear cut leave some mast oak. Let regenerate naturally Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Pine oak mix Regen: Other winter or summer cut add massassauga spec Comment:

Proposed Start Date: 10/01/2018

63100107-NF 310 -3.9 3102 - Grass NonForestMgt Unspec Other - Specify Proposal Nonstocked

Herbaceous Openland

Habitat Cut: No Site Condition:

Prescription EMR Management Area

Follow EMR guidelines for habitat work. Specs:

Maintain in an open state. Brushing and cutting a few trees should accomplish this goal. In addition, native grasses and forbs as well as mast bearing

shrubs and trees may be planted. Treatment of invasive species as needed.

Next Step Treatments:

Acceptable

Regen:

Other

Comment:

Cadillac Mgt. Unit Report 3 -- Treatments Compartment: 100 s Year of Entry: 2019 а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Approval n Method Objective Status Name CoverType Density Range Structure d Age **Type** 63100108-NF 310 -108 3.2 3102 - Grass Nonstocked Unspec NonForestMgt **Brush Cutting** Proposal Herbaceous ified Openland **Habitat Cut: No Site Condition:** Prescription EMR Management Area Follow EMR guidelines for habitat work. Specs: Maintain in an open state. Brushing and cutting a few trees should accomplish this goal. In addition, native grasses and forbs as well as mast bearing shrubs and trees may be planted. Treatment of invasive species as needed. Next Step Treatments: Acceptable Regen: Other Comment: **Proposed Start Date:** 10/01/2018 112 63100112-Cut 31.7 4129 - Mixed Oak Sawtimber 90 81-110 Harvest Clearcut with 4191 - Mixed Even-Aged Proposal Well Retention Upland Deciduous with Conifer **Habitat Cut: No Site Condition:** Prescription clear cut, mark some oak to leave for mast 20-30 ba. leave wet edges out Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable mixed deciduous Regen: Other winter or summer cut add massassauga spec Comment:

125 63100125-Cut 11.4

Proposed Start Date:

Well

4130 - Aspen

10/01/2018

Habitat Cut: No Site Condition:

Poletimber

55

Unspec

ified

Harvest

Clearcut with

Retention

4139 - Aspen,

Mixed Deciduous

Even-Aged

Proposal

Prescription Clear cut but leave all oak

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:**

Acceptable Mixed deciduous with conifer Regen:

Other Comment:

Proposed Start Date: 10/01/2018

Total Treatment 531.3 **Acreage Proposed:**

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Cadillac Mgt. Unit

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Availa	ability for	Managemer	nt						
Total	Acres	Acres Avail	Acres	С	Omina	nt Site	e Con	dition	S
Acres	Available	With Condition	Not Available		5C	5F	2G	2H	5E
1033	1020	12	1	Aspen	12		1		
19	19	0	0	Bare/Sparsely Vegetated					
8	8	0	0	Herbaceous Openland					
99	99	0	0	Jack Pine					
5	5	0	0	Low-Density Trees					
3	3	0	0	Lowland Aspen/Balsam Poplar					
51	11	0	40	Lowland Conifers			40		
57	10	0	47	Lowland Deciduous			36	11	
108	22	0	86	Lowland Mixed Forest			86		
8	8	0	0	Lowland Shrub					
29	29	0	0	Marsh					
341	249	87	5	Mixed Upland Deciduous	87				5
88	88	0	0	Natural Mixed Pines					
63	63	0	0	Northern Hardwood					
358	95	242	20	Oak	242				20
65	65	0	0	Red Pine					
3	0	0	3	Tamarack			3		
49	25	24	0	Upland Conifers		24			
78	78	0	0	Upland Mixed Forest					
1	1	0	0	Upland Shrub					
2	2	0	0	Urban					
5	5	0	0	Water					
68	68	0	0	White Pine					
2,541	1,972	365	203	Total Forested Acres	342	24	167	11	25
	78%	14%	8%	Relative Percent				9	-

^{*}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 Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	25	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

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2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	87	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	16	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Available	5F: Evaluated for Forest Health Considerations	24	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	153	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Treated in 2009						
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	47	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Cut in 2000 Look a	t treating next yoe when regen	is establi	shed			

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7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
8	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
9	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	89	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	32	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Freated in 2009						
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

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13	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
15	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
17	Unavailable	5E: Long-Term Retention	11	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
18	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
19	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Cadillac Mgt. Unit

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20	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	11	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
22	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
23	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	18	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						

Mgt. Unit

Compartment: #Type! Year of Entry:



Report 5 - 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				

Cadillac Mgt. Unit Compartment: 100
Year of Entry 2019





* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

Conservation Area	Туре	Description	HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA Cold	d Water Lake	A coldwater lake has temperature and dissolved oxygen conditions stocked trout populations and those of other coldwater fish specific conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	cies to persist from year to year. Suitable ney are relatively deep, have substantial f the state. Such lakes are established by

S t	Cadilla	Cadillac Mgt. Unit			- Forested	Stands Compartment: 100 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	42110 - Planted Red Pine	Poletimber Well	15.7	62	111-140	RP plantation Still responding from recent thinning. Look at clear cut next time and re plant to red.
3	4124 - Red with White Oak	Poletimber Well	8.1	40	51-80	
4	4130 - Aspen	Poletimber Well	41.7	28	Unspecified	Solid aspen stand cut in 1989.
6	4130 - Aspen	Sapling Well	81.7	16	1-50	Cut in 2000 and 2001.
7	4124 - Red with White Oak	Sawtimber Medium	153.4	85	1-50	Mix of good quality red oak, white oak and aspen. Hilly in spots Treated with sale #63-013-09-01 Good regen. coming in
8	4131 - Aspen, Oak	Sapling Well	23.0	5	1-50	Treated with sale #63-30-09-01 Cut in 2012
9	4119 - Mixed Northern Hardwoods	Sapling Poor	7.2	3	1-50	Jack Pine strips just cut a couple of years ago. Just filling in with maple and oak seedlings. Plant to red pine next entry.
10	42110 - Planted Red Pine	Poletimber Well	10.1	62	111-140	Rp plantation thinned last time. Will be a good candidate to clear cut and plant next entry.
12	4124 - Red with White Oak	Sawtimber Well	2.0	85	81-110	Mix of good quality red oak,maple and aspen.
13	4131 - Aspen, Oak	Sapling Well	80.6	28	Unspecified	Cut 28 years ago. Came back thick to a mix of aspen red maple and oak. No saw log oak left on this one
15	4126 - White, Black, N. Pin Oak	Poletimber Well	1.2	50	81-110	Small acreage but different than surrounding stands. Good retention stand of oak
16	4124 - Red with White Oak	Sawtimber Well	2.7	85	81-110	Hold this as a small retention area between cuts.
17	4122 - Oak, Pine	Sapling Medium	2.3	15	Immature	Old open area filled in with oak and white pine
18	4130 - Aspen	Poletimber Well	32.6	28	Unspecified	Cut 18 years ago Came back thick to a mix of aspen and deciduos.
19	4131 - Aspen, Oak	Sapling Well	99.0	5	Immature	Very mixed stand of scattered mature oak over top thick aspen red maple regen. Treated with sale # 63-030-09-01
20	4199 - Other Mixed Upland Deciduous	Sawtimber Well	46.8	95	51-80	Cut in 2000. Mature oak over RM understory.
21	4199 - Other Mixed Upland Deciduous	Sawtimber Well	28.1	90	81-110	Oak with mixed deciduous.

S t	Cadillac Mgt. Unit			Report 7	- Forested	Stands Compartment: 100 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4131 - Aspen, Oak	Sapling Well	20.0	5	1-50	Clear cut areas/patches Treated with sale 630610901 Filling in solid under oak
23	4199 - Other Mixed Upland Deciduous	Sawtimber Well	43.9	85	51-80	Mixed oak lower quality with aspen and red maple.
25	4199 - Other Mixed Upland Deciduous	Poletimber Well	8.2	85	51-80	Low quality oak and aspen with a mix of aspen/maple regen.
28	42200 - Natural White Pine	Sawtimber Well	5.6	90	51-80	Small acreage wet area with large white pine and alder
30	4123 - Red Oak	Sawtimber Well	5.0	90	51-80	Small acreage piece left from all other cuts Leave as a retention stand.
31	4130 - Aspen	Poletimber Well	150.1	28	Unspecified	Cut in 89. Came back solid.
32	4131 - Aspen, Oak	Sapling Well	44.8	18	1-50	Treated in 99 Mature oak over good regen of aspen/maple
33	4139 - Aspen, Mixed Deciduous	Poletimber Well	10.0	28	Unspecified	
36	4124 - Red with White Oak	Sawtimber Well	51.2	90	81-110	Oak, mixed deciduos stand. Healthy, solid.
37	4199 - Other Mixed Upland Deciduous	Poletimber Well	28.9	22	Immature	Cut in 95 Oak and red maple regen.
40	4129 - Mixed Oak	Poletimber Well	88.9	90	81-110	More White oak than other stands. Smaller diameters and lower basal area. Look at doing a shelter wood next time to stimulate some growth
41	4121 - Oak, Aspen	Sawtimber Well	11.4	66	81-110	This is uncut areas left from near by oak/aspen cuts. Leave as retention areas.
43	4131 - Aspen, Oak	Poletimber Well	31.3	22	Immature	Cut in 95 Came back a mix of oak/aspen
44	4199 - Other Mixed Upland Deciduous	Sawtimber Well	32.3	90	1-50	This was called an oak salvage sale in 09. Removed all aspen and red maple and left scattered red and white oak. Good regen/understory
45	4139 - Aspen, Mixed Deciduous	Poletimber Well	19.3	28	Unspecified	Cut in 1989. Came back to a mix of aspen/red maple, some oak.
46	4130 - Aspen	Poletimber Well	14.1	17	Immature	Two stands cut in 2000
49	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	15.0	66	81-110	some super canopy white pine. Clear cut but mark some oak to leave for mast.

S t	Cadillad		Report 7	- Forested	Stands Compartment: 100 Year of Entry: 2019	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
50	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	8.6	60	Unspecified	Low wet mix .
51	429 - Mixed Upland Conifers	Sawtimber Well	23.7	86	Unspecified	. Wet, with some water flow. Deer yarding area.
52	42110 - Planted Red Pine	Poletimber Well	7.2	70	51-80	Old RP plantation. Treated with sale #63-034-09-01
53	6121 - Tamarack	Poletimber Well	2.8	70	Unspecified	Stand was different enough from surrounding to break out. Mix of tamarack and spruce. Stream flowing through stand to the north.
54	4131 - Aspen, Oak	Poletimber Well	15.7	17	Immature	Cut in 2000 sale 36-99
56	42201 - Natural White Pine, Mixed Deciduous	Poletimber Well	15.5	61	51-80	West side of stand has smaller diameters. Thin out log white pine next yoe
58	4139 - Aspen, Mixed Deciduous	Sapling Well	41.1	5	Unspecified	Treated with sale #047-09 Cut in 2011-2012
59	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	5.1	66	Unspecified	Low area mix of deciduos and coniferous. Wet. North of recent cut.
60	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	27.2	55	81-110	Mixed stand Larger oak is declining
61	4131 - Aspen, Oak	Sapling Well	23.3	6	Immature	treated with sale #047-09-01
62	4130 - Aspen	Sapling Medium	20.9	17	Immature	This was cut last time with a bug test plot (retention) left in the middle of the sale. #63-39-99-01 cut in 2000
64	4199 - Other Mixed Upland Deciduous	Sawtimber Well	17.9	90	51-80	Top of the hill surrounded by clear cuts.
65	4130 - Aspen	Poletimber Well	100.5	28	Unspecified	Cut in 1989, came back solid.
66	4139 - Aspen, Mixed Deciduous	Sapling Well	10.9	5	Unspecified	Treated with sale # 047-09-01 Cut in 2011-2012
67	4130 - Aspen	Poletimber Well	27.6	60	Unspecified	Very mixed stand with some low areas. Treat upland areas with mature aspen in it.
70	42110 - Planted Red Pine	Poletimber Well	32.1	63	141-170	Red Pine plantation, still has a lot of small diameters.
71	42290 - Natural Mixed Pine	Poletimber Well	19.1	51	1-50	Natural pine over thick oak and jack pine regeneration.
72	42121 - Planted Jack Pine, Mixed Deciduous	Poletimber Well	27.6	63	81-110	Plant next yoe when adjacent red pine is clear cut.

S t	Cadillac Mgt. Unit			Report 7	- Forested	Stands Compartment: 100 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
73	4119 - Mixed Northern Hardwoods	Sapling Medium	20.3	25	51-80	Scrubby/ open cherry and brush
74	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	9.3	25	Immature	Came back patchy/scrubby/brushy Cut as an oak salvage in 1992
75	4130 - Aspen	Poletimber Well	72.7	28	Immature	Cut in 1989
76	4199 - Other Mixed Upland Deciduous	Sapling Well	16.8	25	51-80	This was an oak salvage sale also removed aspen and maple Cut in 1992
77	42220 - Natural Jack Pine	Sapling Poor	4.2	10	Immature	Was a g type previously now filling in
78	4130 - Aspen	Poletimber Well	9.1	28	Unspecified	
79	42220 - Natural Jack Pine	Poletimber Well	2.1	70	Unspecified	Small acreage but different enough from adjacent stands. Being used for cover by deer. Leave as cover stand for now, treat when near by stands mature.
80	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	2.4	61	81-110	Small acreage. Leave as retention between two recent cuts.
81	42220 - Natural Jack Pine	Poletimber Well	18.4	46	81-110	Natural JP, various diameters. limby and short. When treating near by strips next time you might clear cut this and plant red pine also.
83	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	31.1	50	1-50	Seed tree Jp cut last time, over mix deciduos regen Cut in 99
84	4131 - Aspen, Oak	Poletimber Well	12.0	50	Unspecified	Hold till next time.
85	4310 - Pine, Oak Mix	Sapling Well	10.4	20	81-110	Trenched and seeded in 97. Thick and wolfy with branches to the ground
86	6112 - Lowland Aspen	Sawtimber Well	2.5	55	Unspecified	. Small acreage.
88	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	41.2	65	Unspecified	Some wet areas along edge
89	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Well	35.1	7	51-80	Cut in 2010 sale 63-034-09-01
90	4116 - Mixed N. Hardwood - Aspen	Sapling Well	8.0	5	Unspecified	Treated with sale #047-09 Cut in 2011-2012
92	4133 - Aspen, Mixed Pine	Poletimber Well	8.4	28	Unspecified	

S t	Cadillad		Report 7	– Forested St	tands Compartment: 100 Year of Entry: 2019	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
94	4113 - R.Maple, Conifer	Poletimber Well	27.4	50	81-110	Low wet
95	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	14.5	28	81-110	
96	6123 - Lowland Fir	Poletimber Well	11.2	50	Unspecified	Low wet and brushy. Ash is dead
97	4310 - Pine, Oak Mix	Poletimber Well	34.7	35	51-80	Upland mix, wolfy jack pine
98	6139 - Mixed Lowland Forest	Sawtimber Well	86.5	80	81-110	Mostly low q type with some upland ridges within stand
99	4310 - Pine, Oak Mix	Sawtimber Well	33.0	85	81-110	Low area of large natural pine mix.
100	4191 - Mixed Upland Deciduous with Conifer	Poletimber Poor	2.7	40	1-50	Open brushy scattered shooting lanes
101	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	24.7	25	Immature	Wet
102	4133 - Aspen, Mixed Pine	Poletimber Well	13.6	30	Immature	some open patchy areas
103	42250 - Pine, Oak	Sawtimber Well	37.9	60	111-140	Some wet areas on edge
104	42380 - Non Pine Upland Conifer, Mixed Deciduous	Poletimber Well	25.2	60	81-110	Some wet areas access difficult
105	42220 - Natural Jack Pine	Poletimber Well	11.2	60	81-110	jack pine declining some wet areas on edge
106	4130 - Aspen	Sapling Well	17.7	28	Unspecified	
110	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	6.1	60	81-110	Along river private. Leave as a retention stand
112	4129 - Mixed Oak	Sawtimber Well	31.7	90	81-110	Very mixed stand some low areas. Also areas of red maple and aspen
117	6119 - Mixed Lowland Deciduous Forest	Sawtimber Well	43.2	100	Unspecified	Low mixed deciduos along old river plain. oxbow, wet
118	6139 - Mixed Lowland Forest	Sapling Medium	21.7	5	Immature (Cut with sale 63-034-19-01 in 2012 Came back kind of scattered and patchy.
121	42200 - Natural White Pine	Poletimber Well	47.0	45	1-50	Treated with sale 63-13-09-01 Cut in 2010/11

S t	Cadilla		Report 7	' – Forested Stands	Compartment: 100 Year of Entry: 2019	DNR	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	MICHIGAN
125	4130 - Aspen	Poletimber Well	11.4	55	Unspecified	Hilltop area uncut from previous sales.	
127	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	15.6	80	Unspecified	Wet and low	

Report 8 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	General Comments:
1	790 - Other Bare/Sparsely Vegetate	18.6		Clear cut in 2014. Re Plant to red pine when adjacent red pine strips are cut next yoe
5	3301 - Low Density Deciduous Trees	2.1	No	Grass opening Used as landing area from previous sales.
11	122 - Road/Parking Lot	2.3	No	Moddersville Cemetery
14	3102 - Grass	0.9	No	This is a grassy opening previously used for a landing and hunting camp
24	3201 - Sweet Fern	1.0	No	
57	500 - Water	5.1	No	Ox bows of the Muskegon river
82	330 - Low-Density Trees	2.9	No	Scattered jack pine and cherry,, sweet fern and grass
107	3102 - Grass	3.9	Yes	Rye field recently worked
108	3102 - Grass	3.2	No	Looks like it does not have water year round, not a creek
123	6239 - Mixed Emergent Wetland	29.5	No	
126	6220 - Alder/willow	7.9	No	